

A Quick Reference Guide to Education and Certification Paths for PartnerWorld Software Business Partners:

DB2 | Data Management Software

Tivoli software

WebSphere software

Lotus software

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Purpose

The purpose of this document is to assist PartnerWorld Business Partners in selecting the appropriate education programs to achieve their desired certification goals. This guide should be used as a reference only as education and certification programs can change at short notice.

Contacts

Should you require assistance in planning education for yourself or your organisation, The Partnerworld Helpline is available to assist. Contacts details of the team are:

Telephone:

U.S. and Canada	1-800-426-9990
Worldwide	1-770-858-5052

E-mail:

About the program :	partnerline@us.ibm.com
About the Web site:	pwg@us.ibm.com

Useful References

The following are a list of useful websites and contact numbers to assist you with education and certification

PartnerWorld

<http://www.ibm.com/partnerworld>

PartnerWorld Education & Certification News

<http://www.ibm.com/partnerworld/marketing/pmrktng.nsf/weblook/education.html>

IBM Certification

<http://www.ibm.com/certify>

IBM Software Home Page

<http://www.software.ibm.com>

IBM Redbooks

<http://www.redbooks.ibm.com>

Tivoli Certification

<http://www.tivoli.com/services/certification>

Lotus Certification

<http://www.lotus.com/certification>

Lotus Education

<http://www.lotus.com/education>

IBM Education

<http://www.ibm.com/services/learning>

Informix Education

<http://www.ibm.com/software/data/informix/education>

Disclaimer

All prospective candidates should always refer to the certification website <http://www.ibm.com/certify> for the latest details. This guide is a quick reference tool to enable prospective certification candidates to understand what education offerings are available to assist them in reaching a particular certification status. The candidate must be aware that for many technical certification paths, education will only provide subject matter knowledge that will assist with passing certification exams. The certification exams assume practical knowledge as well which is obtained by working with the product for a period of time. Students that have the necessary prerequisite skills outlined may elect to sit the tests rather than attend the education. The candidate is encouraged to utilize the [test objectives and sample exams](#) that are available to determine their readiness to sit the exams. Details can be obtained from the IBM, Tivoli, Informix and Lotus Certification Websites

How to use this Guide

This guide is structured to link education offerings and certification levels together, to enable prospective certification candidates to plan their education programs which are available to assist them in reaching a particular certification status. The guide is best utilized with a connection to the internet as there are hotlinks that will take them to the relevant website for further reference information. The certification paths in this guide will show:

- The level of certification available by product/specialty area
- The test/s required reach that certification level
- The appropriate education they should complete
- The roadmap order of education they should attend. (e.g 1,2,3... This is the recommended order of attendance)
- There is also alternative education methods listed in **RED** that will provide an alternative to classroom education.

There are descriptions of the education available in this guide as well as a worksheet to assist in planning a candidate's education. To enrol on the IBM technical classes in your country please go to http://www.ibm.com/services/learning/index_ns.html For Lotus Domino education, candidates can attend classes that are delivered by Lotus Authorised Education Centres (LAECs). To find your nearest LAEC please visit <http://www.lotus.com/education> .

Feedback

This guide was developed to assist PartnerWorld members in selecting the appropriate education to reach their certification levels. Anyone that may want to contribute to making this guide a more effective tool is encouraged to send their feedback to it's 'creator' Richard Brincat. Amendments made in this version are the inclusion of Informix , Tivoli and updates to other curricula. My contact details are email: brincrg@au1.ibm.com or phone 61-2-8263-4583.

Education/Certification Quick Reference Course Descriptions

MQSeries Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified Specialist - MQSeries	095	MQSeries Installation and Configuration	MQ01	MQSeries Technical Introduction	1 Day	1
			MQ82	MQSeries Technical Introduction	CBT	1
			MQ15	MQSeries System Administration	3 Days	2
			MQ84	MQSeries System Administration	CBT	2
IBM Certified Solutions Expert - MQSeries	096	MQSeries System Planning and Design	MQ01	MQSeries Technical Introduction	1 Day	1
			MQ82	MQSeries Technical Introduction	CBT	1
			MQ05	MQSeries Application Programming	3 Days	2
			MQ83	MQSeries Application Programming	CBT	2
			MQ07	MQSeries Connections for Domino	2 Days	3
			MQ15	MQSeries System Administration	3 Days	4
			MQ84	MQSeries System Administration	CBT	4
MQ30	MQSeries Advanced System Administration	3 Days	5			
IBM Certified Developer - MQSeries	097	MQSeries Application Design	MQ01	MQSeries Technical Introduction	1 Day	1
			MQ82	MQSeries Technical Introduction	CBT	1
			MQ05	MQSeries Application Programming	3 Days	2
			MQ70	MQSeries Application Design	2.5 Days	3
IBM Certified Specialist - MQSeries V2 Integrator	095 290	Must Complete Test 095 Prior MQSeries System Planning and Design	Prereq	IBM Certified Specialist - MQSeries		1
			MQ66	MQSeries Integrator V2 Workshop	5 Days	2
IBM Certified Solutions Expert - MQSeries V2 Integrator	096/7 290	Must Complete Test 096/097 Prior MQSeries System Planning and Design	Prereq	Solutions Expert or Developer- MQSeries		1
			MQ66	MQSeries Integrator V2 Workshop	5 Days	2
IBM Certified Solutions Expert - MQSeries Workflow	092	MQSeries Workflow System Planning and Modeling	MW30	MQSeries Workflow Modeling and API Programming	5 Days	1
			MW50	MQSeries Workflow for S/390 Workshop	3 Days	2
IBM Certified Specialist - MQSeries Adapter Offering V1	295	MQSeries Adapter Offering V1 Implementation	MQ35	MQSeries Adaptor Offering Introduction	1 Day	1
			MQ36	MQSeries Adaptor Offering Tech Workshop	3 Days	2

Education/Certification Quick Reference Course Descriptions

Lotus Domino R5 Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
Certified Lotus Specialist - Domino Administration	520	Maintaining Domino R5 Servers and Users	SA310	Maintaining a Domino Server Infrastructure	4 Days	1
			SA330	Maintaining Domino Users	1 Day	2
Certified Lotus Professional - Domino Administration	521	Implementing a Domino R5 Infrastructure	SA210	Implementing a Domino R5 Infrastructure	3 Days	3
	522	Deploying Domino R5 Applications	SA260	Deploying Domino R5 Applications	2 Days	4
	520-2	CLP Tests 520/521/522	SACIB5	System Administration Certification in a Box	10 Days	1-4
Principle Certified Lotus Professional - Domino Administration	523	Transitioning a Domino Infrastructure to R5	SA470	Transitioning a Domino Infrastructure to R5	2 Days	5
	525	Performance Tuning a Domino R5 Infrastructure	SA410	Performance Tuning a Domino R5 Infrastructure	2 Days	5
Certified Lotus Specialist - Domino Application Developer	510	Domino R5 Designer Fundamentals	AD210	Maintaining a Domino Server Infrastructure	3 Days	1
Certified Lotus Professional - Domino Application Developer	511	Domino R5 Application Security and Workflow	AD240	Domino R5 Application Security and Workflow	2 Days	2
	512	Domino R5 Application Architecture	AD270	Domino R5 Application Architecture	2 Days	3
	510-2	CLP Tests 510/511/512	ADCIB5	Application Development Certification in a Box	7 Days	1-3
Principle Certified Lotus Professional - Domino Application Developer	273	Lotuscript in Notes for Advanced Developers	AD540	Using Lotuscript in Domino R5 Applications	3 Days	4
	513	Using JavaScript in Domino Apps	AD500	Using JavaScript in Domino R5 Applications	2 Days	4
	516	Using Java in Domino R5 Apps	AD580	Using Java in Domino R5 Applications	2 Days	4
	517	Maintaining Data Access with LEI	AD310	Maintaining Data Access with LEI	1 Day	4

Education/Certification Quick Reference Course Descriptions

Lotus Collaborative Solutions Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
Certified Lotus Specialist - Sametime 2.0 Administration	532	Administering a Sametime 2.0 Infrastructure	ST720	Administering a Sametime 2.0 Infrastructure	2 Days	1
Certified Lotus Specialist - Domino.Doc 3.0 System Administration	533	Domino.Doc 3.0 System Administration	DD710	Domino.Doc 3.0 System Administration	2 Days	1
Certified Lotus Specialist - Lotus Discovery Server 1.0 Implementation	534	Implementing Lotus Discovery Server 1.0	KS300	Implementing Lotus Discovery Server 1.0	2 Days	1
Certified Lotus Professional - Collaborative Solutions System Administrator	532	Administering a Sametime 2.0 Infrastructure	ST720	Administering a Sametime 2.0 Infrastructure	2 Days	1
	533	Domino.Doc 3.0 System Administration	DD710	Domino.Doc 3.0 System Administration	2 Days	1
	534	Implementing Lotus Discovery Server 1.0	KS300	Implementing Lotus Discovery Server 1.0	2 Days	1
Certified Lotus Specialist - Lotus Workflow 3 Developer	565	Developing Applications Using Lotus Workflow 3	LW400	Developing Applications Using Lotus Workflow 3	2 Days	1
Certified Lotus Specialist - Sametime 2.0 Developer	562	Developing Web Applications for Lotus Sametime 2.0	ST500	Developing Web Applications for Lotus Sametime 2.0	2 Days	1
Certified Lotus Specialist - Domino.Doc 3.0 Customization	533	Domino.Doc 3.0 Customization	DD420	Domino.Doc 3.0 Customization and the API	2 Days	1
Certified Lotus Professional - Collaborative Solutions Application Developer	565	Developing Applications Using Lotus Workflow 3	LW400	Developing Applications Using Lotus Workflow 3	2 Days	1
	562	Developing Web Applications for Lotus Sametime 2.0	ST500	Developing Web Applications for Lotus Sametime 2.0	2 Days	1
	533	Domino.Doc 3.0 Customization	DD420	Domino.Doc 3.0 Customization and the API	3 Days	1

Education/Certification Quick Reference Course Descriptions

WebSphere Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified Solutions Expert - IBM WebSphere Studio V3.5	405	IBM WebSphere Studio, V3.5	AD62	IBM WebSphere Studio& Application Server (Std Edition) Mentored Workshop	5 Days	1
IBM Certified Solutions Expert - IBM WebSphere Studio Professional or Advanced edition V4.0	487	IBM WebSphere Studio, V4.0 Professional or Advanced edition	AD60	Check Education Prerequisites IBM WebSphere Studio& Application Server (Std Edition) Mentored Workshop	3 Days	1
						2
IBM Certified Specialist - IBM WebSphere Application Server Std Edition V3.5	406	IBM WebSphere Application Server Standard Edition V3.5	AD62	Check Education Prerequisites IBM WebSphere Studio& Application Server (Std Edition) Mentored Workshop	5 Days	1
IBM Certified Solutions Developer - IBM WebSphere Application Server Std Edition V3.5	155	Sun Certified Programmer for the Java™ 2 Platform	SUN JAVA	Sun Certified Programmer for the Java™ 2 Platform - Education		1
	486	Object-Oriented Analysis and Design with UML Test	OB15	Practicing Object-Oriented Analysis and Design	5 Days	2
	406	IBM WebSphere Application Server Standard Edition V3.5	AD62	IBM WebSphere Studio& Application Server (Std Edition) Mentored Workshop	5 Days	3
IBM Certified Specialist - IBM WebSphere Application Server Adv Edition V3.5	498	IBM WebSphere Application Server Advanced Edition V3.5	AD65	IBM WebSphere Application Server & EJB (Adv Edition) Mentored Workshop	5 Days	1
IBM Certified Enterprise Developer - IBM WebSphere Application Server Adv Edition V3.5	483	Prerequisite Solution Developer Enterprise Connectivity Test (with Java 2 Enterprise Edition)		Prerequisite Certified Solution Developer Pre Assessment Test		1
		498	IBM WebSphere Application Server Advanced Edition V3.5	AD65	IBM WebSphere Application Server & EJB (Adv Edition) Mentored Workshop	5 Days
IBM Certified Systems Expert - Administration for IBM WebSphere Application Server Adv Edition V3.5	409	IBM WebSphere Application Server Advanced Edition V3.5 Administration	AD69	IBM WebSphere Application Server Adv Edition V3.5 Administration Workshop	3 Days	1

Education/Certification Quick Reference Course Descriptions

WebSphere Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified Specialist - IBM WebSphere Application Server Advanced Single Server Edition for Multiplatforms V4.0	488	IBM WebSphere Application Server Advanced Single Server Edition for Multiplatforms V4.0	WF34	Check Education Prerequisites Enterprise JavaBean Development for WebSphere using VisualAge for Java V4.0	4.5 Days	1 2
			WF30	Servlet & JSP Development for WebSphere using VisualAge for Java V4.0	4.5 Days	3
IBM Certified Enterprise Developer - IBM WebSphere Application Server Advanced Single Server Edition for Multiplatforms V4.0	483	Enterprise Connectivity Test (with Java 2 Enterprise Edition)	AD65	Check Education Prerequisites IBM WebSphere Application Server & EJB (Adv Edition) Mentored Workshop	5 Days	1 2
IBM Certified Specialist - IBM WebSphere Application Server Advanced Edition V4.0	488	IBM WebSphere Application Server Advanced Single Server Edition for Multiplatforms V4.0	WF34	Check Education Prerequisites Enterprise JavaBean Development for WebSphere using VisualAge for Java V4.0	4.5 Days	1 2
IBM Certified Systems Expert - Admin for IBM WebSphere Application Server Advanced Edition V4.0	489	Administration for IBM WebSphere Application Server V4.0	WF38	Check Education Prerequisites IBM WebSphere Application Server V4.0 Advanced Edition	4 Days	1 2
IBM Certified Specialist - IBM WebSphere Commerce Suite V4.1 Implementation	496	IBM WebSphere Commerce Suite V4.1 Implementation	EB000	Starting an E-Commerce Site with WebSphere Commerce Suite	CBT/ WBT	1
			EB040			2
			EB01	IBM WebSphere Commerce Suite: Starting an E-Commerce Site	2.5 Days	2
IBM Certified Solutions Expert - IBM WebSphere Commerce Suite V4.1 Customization	497	IBM WebSphere Commerce Suite V4.1 Customization	EB12	Customizing an E-Commerce Site with WebSphere Commerce Suite	CBT/ WBT	1
			EB14			2
			EB15	Customizing an E-Commerce Site with WebSphere Commerce Suite	3 Days	2
IBM Certified Specialist - IBM WebSphere Commerce Suite V5.1	210	IBM WebSphere Commerce Suite V5.1 Implementation	WA00	WebSphere Commerce Suite V5.1 Overview	CBT/ WBT	1
			WA01			2
			WA20	WebSphere Commerce Suite V5.1 System Administration	3 Days	2
			WA210	WebSphere Commerce Suite V5.1 System Administration	CBT/ WBT	2
WA220						
IBM Certified Specialist - IBM WebSphere Host Publisher	567	IBM WebSphere Host Publisher	SW910	IBM WebSphere Host Publisher Application Development Workshop	4 Days	1

Education/Certification Quick Reference Course Descriptions

Application Development Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified Specialist - IBM VisualAge for Java, Professional Edition, V3	282	IBM VisualAge for Java, Professional Edition, V3	SUN JAVA	Sun Certified Programmer for the Java™ 2 Platform - Education		1
			OB75	VisualAge for Java	4.5 Days	2
IBM Certified Solutions Developer IBM VisualAge for Java, Professional Edition, V3	310-023	Sun Certified Programmer for the Java™ 2 Platform	SUN JAVA	Sun Certified Programmer for the Java™ 2 Platform - Education		1
			OB15	Practicing Object-Oriented Analysis and Design	5 Days	2
			OB75	VisualAge for Java	4.5 Days	3
	486	Object-Oriented Analysis and Design with UML Test				
	282	IBM VisualAge for Java, Professional Edition, V3				

e-business Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified for e-business - Solution Advisor	810	Selling IBM e-business Solutions	EBSE	e-business Sales Essentials	Self Study	1
			SSM4S	Signature Selling Methodology Workshop	2 Days	2
			B3005	e-business: Selling Workshop	2 Days	2
IBM Certified for e-business - Solution Designer	811	Designing IBM e-business Solutions	EB90	e-business Fundamentals	WBT	1
			IN74	e-business Fundamentals	2 Days	1
			B3106	e-business Technology Workshop	5 Days	2
			P3206	Designing Integrated Solutions Workshop	5 Days	3
IBM Certified for e-business - Solution Technologist	812	e-business Core Knowledge	IBM Certified	AN Approved IBM Product Implementation or Development Certification (Prerequisite)		1
			EB90	e-business Fundamentals	WBT	2
			IN74	e-business Fundamentals	2 Days	2

Education/Certification Quick Reference Course Descriptions

Data Management Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
IBM Certified Specialist - DB2 UDB V6/V7 User	509	DB2 UDB V6.1 Fundamentals	CT03	DB2 Family Fundamentals	CBT	1
	512	DB2 UDB V7.1 Fundamentals	CF03	DB2 Family Fundamentals	2 Days	1
			CT12	DB2 SQL Workshop	CBT	2
			CF12	DB2 SQL Workshop	2 Days	2
IBM Certified Solutions Expert - DB2 UDB V6/V7 Database Administration for UNIX/Windows	509	DB2 UDB V6.1 Fundamentals	CT03	DB2 Family Fundamentals	CBT	1
	512	DB2 UDB V7.1 Fundamentals	CF03	DB2 Family Fundamentals	2 Days	1
			CT12	DB2 SQL Workshop	CBT	2
			CF12	DB2 SQL Workshop	2 Days	2
	510	DB2 UDB V6.1 Database Administration	CF23	DB2 UDB Administration Workshop for Windows NT	4 Days	3
	513	DB2 UDB V7.1 Database Administration				
			CF21	DB2 UDB Administration Workshop for Unix	4 Days	3
			CT13	DB2 Advanced SQL Workshop	CBT	3
		CT28	DB2 UDB for Experienced Relational DBAs	CBT	3	
IBM Certified Solutions Expert - DB2 UDB V6/V7 Application Development for UNIX/Windows	509	DB2 UDB V6.1 Fundamentals	CT03	DB2 Family Fundamentals	CBT	1
	512	DB2 UDB V7.1 Fundamentals	CF03	DB2 Family Fundamentals	2 Days	1
			CT12	DB2 SQL Workshop	CBT	2
			CF12	DB2 SQL Workshop	2 Days	2
	511	DB2 UDB V6.1 Application Development	CF10	DB2 UDB Programming Fundamentals	2 Days	3
	514	DB2 UDB V7.1 Application Development				
		CF11	DB2 UDB Advanced Programming	2 Days	4	
IBM Certified Solutions Expert - Business Intelligence	Prerequisite DB2 Certification		IBM Certified	AN Approved DB2 Certification (Prerequisite)		1
	515	Business Intelligence Solutions	DW11	Data Warehouse Enablement - Methods and Techniques	4.5 Days	2

Education/Certification Quick Reference Course Descriptions

Informix Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
Informix Certified System Administrator for Red Brick Decision Server Version 6	660-511	System Administration for Informix Red Brick Decision Server Version 6	L1-786	Informix Red Brick Decision Server Business Queries	2 Days	1
			L1-920	Informix Red Brick Decision Server Administration	4 Days	2
			L2-791	Informix Red Brick Decision Server Performance Tuning,	3 Days	3
Informix Certified System Administrator for Informix Dynamic Server Version 9	660-111	Database Fundamentals Exam	FN-611	Relational Database Design	2 Days	1
			FN-613	IBM Informix Structured Query Language	3 Days	2
			FN-757	Advanced Structured Query Language	2 Days	3
	660-112	Managing and Optimizing Informix Dynamic Server Databases Exam	FN-848	Managing and Optimizing Informix Dynamic Server Databases	4 Days	4
			FN-910	IBM Informix Data Migration and Reorganization	2 Days	5
	660-411	System Administration for Dynamic Server.2000 9 Exam	L1-846	IBM Informix Dynamic Server Administration	4 Days	6
	660-412	Performance Tuning and Backup/Restore Strategies: Informix Dynamic Server.2000 9 Exam	L2-403	IBM Informix Dynamic Server Performance Tuning	4 Days	7
			L2-748	IBM Informix Dynamic Server Backup and Restore	3 Days	8
Informix Certified 4GL Developer	660-111	Database Fundamentals Exam	FN-611	Relational Database Design	2 Days	1
			FN-613	IBM Informix Structured Query Language	3 Days	2
			FN-757	Advanced Structured Query Language	2 Days	3
	660-301	Informix 4GL Development Exam	L1-007	Developing Applications Using Informix 4GL	4 Days	4
			L2-224	Advanced IBM Informix 4GL Development	3 Days	5
Informix Certified Dynamic 4GL Developer	660-111	Database Fundamentals Exam	FN-611	Relational Database Design	2 Days	1
			FN-613	IBM Informix Structured Query Language	3 Days	2
			FN-757	Advanced Structured Query Language	2 Days	3
	660-301	Informix 4GL Development Exam	L1-007	Developing Applications Using Informix 4GL	4 Days	4
	660-302	Informix Dynamic 4GL Development Exam	L2-224	Advanced IBM Informix 4GL Development	3 Days	5
			L2-726	Migrating to Informix Dynamic 4GL	2 Days	6

Education/Certification Quick Reference Course Descriptions

Tivoli Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
Tivoli Certified Consultant - Tivoli SecureWay User Administration V3.7	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	777	Tivoli SecureWay® User Administration Implementation	TR170	Tivoli SecureWay User Administration 3.7	2 Days	3
Tivoli Certified Consultant - Tivoli SecureWay Security Manager V3.7	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	687	Tivoli SecureWay® User Administration Implementation	TR120	Tivoli Security Management Implementation 3.7.1	4 Days	3
Tivoli Certified Consultant - Tivoli Enterprise Console V3.7	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	577	Tivoli Enterprise Console® V3.7 Implementation	TM090	Tivoli Enterprise Console V3.7	3 Days	3
Tivoli Certified Consultant - Tivoli Storage Manager V4.1	699	Tivoli Storage Manager V4.1 Implementation	TS51	Tivoli Storage Manager 4.1 Implementation	5 Days	1
			TS52	Tivoli Storage Manager 4.1 Advanced Administration	4 Days	2
Tivoli Certified Consultant - Tivoli Distributed Monitoring V3.7	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	578	Tivoli Distributed Monitoring V3.7 Implementation	TM180	Tivoli Distributed Monitoring V3.6	2 Days	3
Tivoli Certified Consultant - Tivoli Inventory V4.0	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	694	Tivoli Inventory V4 Implementation	TM190	Tivoli Inventory V3.6	2 Days	3
Tivoli Certified Consultant - Tivoli Netview 6.0	682	Tivoli Netview V6.0 Implementation	TV050	Tivoli NetView 6.0 for UNIX for Administrators	5 Days	1
			TV060	Tivoli NetView 6.0 for NT for Administrators	5 Days	2

Education/Certification Quick Reference Course Descriptions

Tivoli Certification

Certification Level	Test #	Test Title	Course Code	Recommended Education Offering	Duration	Roadmap Order
Tivoli Certified Consultant - Tivoli Software Distribution V4.1	576	Tivoli Framework V3.7 Implementation	TM150	Tivoli Management Framework V3.7	3 Days	1
			TM250	Tivoli Management Framework V3.7 for Senior Administrators	4 Days	2
	693	Tivoli Software Distribution V4.1 Implementation	TM140	Tivoli Software Distribution V4.0	3 Days	3
Tivoli Certified Consultant - Tivoli SecureWay® Policy Director V3.7	691	Tivoli SecureWay® Policy Director V3.7 Implementation	TR300	SecureWay Policy Director Fundamentals	1 Day	1
			TR310	SecureWay Policy Director Planning and Implementation	5 Days	2
			TR320	SecureWay Policy Director 3.7 Architecture and Design	4 Days	3
			TR330	SecureWay Policy Director 3.7 System Administration	4 Days	4
Tivoli Certified Consultant - Tivoli Workload Scheduler V7.0	579	Tivoli Workload Scheduler V7.0 Implementation	TW01	Tivoli Workload Scheduler V7.0 Administration	2 Days	1
			TW02	Tivoli Workload Scheduler V7.0 Scheduling and Operations	2 Days	2
Tivoli Certified Enterprise Consultant - Tivoli Enterprise V3.7		Prerequisite Tivoli Certification/s	Tivoli Certified	See Approved Tivoli Certifications (Prerequisite)		1
Tivoli Certified Solutions Expert - Tivoli SecureWay® Firewall for Windows NT	250	Tivoli SecureWay® Firewall for Windows NT Implementation	NW48	TCP/IP Architecture	2 Days	1
			IN29	Internet Security and Firewalls	2 Days	2
			IN34	IBM SecureWay Firewall for NT	3 Days	3
Tivoli Certified Solutions Expert - Tivoli SecureWay® Firewall for AIX	558	Tivoli SecureWay® Firewall for AIX Implementation	IN29	Internet Security and Firewalls	2 Days	1
			IN33	IBM SecureWay Firewall for AIX	3 Days	2
Tivoli Certified Solutions Expert - Tivoli SecureWay® Public Key Infrastructure	561	Tivoli SecureWay® Public Key Infrastructure	IN36	PKI and Tivoli SecureWay Public Key Infrastructure Fundamentals	1 Day	1
			IN37	Tivoli SecureWay Public Key Infrastructure Planning and Implementation	4 Days	2

Education/Certification Quick Reference Course Descriptions

MQ82 - MQSeries Technical Introduction (CD-ROM Course)

Course Code: MQ82

Duration: 6.0 Hours

Overview:

This CD-ROM course describes the MQSeries of products, their functions and use. It is designed both as an introductory course in its own right and as a prerequisite course to the other, more technically specific courses.

Audience:

Customers and IBM technical personnel wishing to find out more about MQSeries and its queue managers

Prerequisites:

Before taking this course, users should have previous technical experience in working with software. Skills and experience in one or more of the following specific areas will enable users to derive more benefit from the course.

- W Communications and networking
- W System and network management
- W System design
- W Application development
- W Transaction processing
- W Data base
- W Client/server solutions
- W Platform knowledge (IBM and non-IBM)
- W Open systems

Objectives:

At the end of this course, users should be able to:

- W Compare and contrast MQSeries with other forms of program to program communication.
- W Identify the major impacts of MQSeries on application design.

- W List the platforms on which MQSeries is supported.
- W Describe the basic components and structure of MQSeries (e.g. a message, a queue, a queue manager, a channel etc.).
- W Describe the function of each of the calls in the Message Queue Interface (MQI)
- W Describe the tasks that need to be performed in order to manage a queue manager and its connections with other queue managers and with MQSeries client applications.
- W Describe the transactional support within MQSeries.
- W Describe those features of MQSeries that contribute to system security.
- W Explain how MQSeries can be used as part of the communications infrastructure to connect application environments such as Lotus Notes, the World Wide Web, and enterprise transaction and data base systems.

Course Contents:

MQSeries Technical Introduction is a modular, self-paced computer-based training course covering the following MQSeries Topics:

- W Introduction to MQSeries
- W Programming with MQSeries - The Calls
- W Programming with MQSeries - The Details
- W Intercommunication
- W System Administration
- W Transactional Support
- W Security
- W Linking and Bridging with MQSeries

Ordering the Course:

- W If you are IBMer but not part of Learning Services, call your local education department.
- W If you are an IBM Customer - please contact IBM Learning Services.

Course Delivery:

This course is structured as a computer-based course. Simulations and hands-on exercises give you the opportunity to practice what you learn. [Return to Map](#)

MQ01 - A Technical Introduction to MQSeries

Course Code: MQ01

Duration: 1.0 Day

Overview:

This course is designed to provide a technical introduction to MQSeries.

Audience:

Technical personnel who wish to find out more about MQSeries.

Prerequisites:

Before taking this course, you should have previous technical experience in working with software. Skills and experience in one or more of the following specific areas will enable you to derive more benefit from the course.

- W Communications and networking
- W System and network management
- W System design
- W Application development
- W Transaction processing
- W Data base
- W Client/server solutions
- W Platform knowledge (IBM and non-IBM)
- W Open systems

Objectives:

At the end of this course, you should be able to:

- W Compare and contrast MQSeries with other forms of program-to-program communication.

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- W** Identify the major impacts of MQSeries on application design.
- W** List the platforms on which MQSeries is supported.
- W** Describe the basic components and structure of MQSeries (for example, a message, a queue, a queue manager, a channel, etc.).
- W** Describe the function of each of the calls in the Message Queue Interface (MQI).
- W** Describe the tasks that need to be performed in order to manage a queue manager and its connections with other queue managers and with MQSeries client applications.
- W** Describe the transactional support within MQSeries.
- W** Describe those features of MQSeries that contribute to system security.
- W** Explain how MQSeries can be used as part of the communications infrastructure to connect application environments such as Lotus Notes, the World Wide Web, and enterprise transaction and data base systems.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ05 - MQ Application Programming

Course Code: MQ05

Duration: 2.0 Days

Overview:

Through lecture and hands-on labs, this course teaches application programmers how to use the MQI (Message Queue Interface). MQSeries provides this consistent programming interface on a wide range of IBM and non-IBM platforms; the course applies to all MQSeries platforms.

In addition to class notes, student will each receive a copy of the following booklet:

W MQSeries Application Reference Summary

Audience:

The course is intended for application designers and application programmers who are intending to build applications using MQSeries.

Prerequisites:

- W** Completion of the MQSeries Technical Introduction (MQ01) or MQ90 Knowledge or an introductory knowledge of MQSeries by some other means.
- W** Experience in application programming on a platform supported by MQSeries.
- W** experience of designing application programs
- W** experience of writing programs in one of the languages supported by the MQM

Objectives:

- On successful completion of this course, the participant will be able to:
- W** Design, write and test programs which use the MQI
 - W** Understand the key elements of program design necessitated by the message queuing paradigm.

Course Content:

- W** Message queuing in programs
 - W** Attributes of queues and messages
 - W** MQI in different environments
 - W** MQSeries object types as well as MQI calls and options
 - W** Programming for a mixed network
 - W** Assured delivery and transactions
 - W** Time independent programming and triggers
 - W** Parallel applications
- There are practical exercises in MQI programming.

Comments:

This update adopts the MQ83Y structure to our classroom course:

W MQ05 will teach the basic MQI as available on all platforms

W MQ06 will teach advanced topics such as Msg groups, segmentation etc.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ15 - MQSeries System Administration

Course Code: MQ15

Duration: 3.0 Days

Overview:

To provide the basic skills required by an administrator for any of the MQSeries Level 2 queue managers except MQSeries for OS/390. Specifically, the queue managers covered by this course are as follows:

- W** MQSeries for AIX
- W** MQSeries for AT&T GIS UNIX
- W** MQSeries for Digital OpenVMS AXP
- W** MQSeries for Digital OpenVMS VAX
- W** MQSeries for HP-UX
- W** MQSeries for OS/2 Warp
- W** MQSeries for AS/400
- W** MQSeries for SINIX and DC/OSx
- W** MQSeries for SunOS
- W** MQSeries for Sun Solaris
- W** MQSeries for Tandem NonStop Kernel
- W** MQSeries for Windows
- W** MQSeries for Windows NT

Audience:

Technical personnel who require the skills to be an administrator for any of the MQSeries Level 2 queue

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managers except MQSeries for OS/390 or to provide support to others performing this task.

Prerequisites:

The course assumes a knowledge of MQSeries to the level covered by MQ01Y - A Technical Introduction to MQSeries. The participant should also be reasonably familiar with, and be able to invoke simple function within, the operating system environment used for the practical exercises. A basic knowledge of how SNA LU6.2, TCP/IP, or NetBIOS is configured would be advantageous.

Objectives:

After attending the course, the participant should be able to:

- W Plan the implementation of MQSeries on a selected platform
- W Install MQSeries
- W Perform simple customisation and administration tasks
- W Enable a queue manager to exchange messages with another
- W Enable a queue manager to support an MQSeries client
- W Implement basic restart/recovery procedures
- W Perform basic problem determination

Course Contents:

- W A Review of MQSeries
 - W Installation and Configuration
 - W The MQI and Triggering
 - W Robust Messaging
 - W Distributed Queue Management
 - W More on Distributed Queuing
 - W MQSeries for Windows
- In theory, the practical exercises may be done using any of the queue managers covered by the course.

In practice, however, the systems used for a specific class will depend on the equipment available.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ83 - MQSeries Application Programming (CD-ROM Course)

Course Code: MQ83

Duration: 16.0 Hours

Overview:

This computer-based self-study course teaches the basic skills of designing and writing business programs which issue calls to the Message Queue Interface (MQI).

Audience:

Experienced business application programmers who need to develop programs using MQSeries.

Prerequisites:

- W Basic understanding of the concepts of messaging and queuing model and how this is implemented in MQSeries (completion of the MQ82Y course).
- W Experience of application programming in C or COBOL.

Objectives:

- Upon completion of this course, learners will be able to:
- W Describe the Message Queue Interface (MQI)
 - W Design and write programs to use the MQI as implemented on the chosen platform
 - W Explain the differences in program design necessitated by the messaging and queuing paradigm
 - W Describe, in detail, the different MQI calls

W Explain the differences in the MQI across the different MQSeries platforms

Course Contents:

- W Major Calls (Housekeeping)
- W Major Calls (Messaging and Queueing)
- W Remote Queueing
- W Manipulating Message Delivery
- W Minor Calls (Syncpoint Control Calls)
- W Minor Calls (MQINQ and MQSET Calls)
- W Message Groups, Segmentation and Reference Messages

Course Delivery:

This course is structured in a CBT, Self-study format.

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MQ84 - MQSeries System Administration (CD-ROM Course)

Course Code: MQ84

Duration: 12.0 Hours

Overview:

This computer-based self-study course provides an excellent introduction to MQSeries System Administration, which is platform independent. In 12 hours study time you will learn much about the implementation of the messaging and queueing concepts in MQSeries.

Audience:

Technical personnel who wish to acquire the basic technical information required by an administrator for the MQSeries Level 2 queue managers.

Prerequisites:

The course assumes a knowledge of MQSeries to the level covered by A Technical Introduction in MQSeries, course-codes MQ01 or MQ82.

Objectives:

After the course the student should be able to:

- W** Describe each of the administration interfaces provided by MQSeries
- W** List some MQSeries control commands and describe their function
- W** Describe the tasks that may need to be performed to prepare a queue manager for use by a business application
- W** Describe the tasks that need to be performed to enable a queue manager to exchange messages with another queue manager
- W** Describe the tasks that need to be performed to enable a queue manager to support an MQSeries and explain the differences necessary in program design
- W** Describe the structure of the MQSeries log and how it enables recovery of different MQI calls
- W** Describe where to look for MQSeries error messages MQSeries
- W** Use MQSeries reference

Course Contents:

MQSeries System Administration is a modular, self-paced computer-based training course covering the following MQSeries topics:

- W** Installation and configuration, as well as The MQI and triggering
- W** Robust messaging, and Distributed queue management
- W** MQSeries for Windows, and MQSeries System Administration

Course Delivery:

This course is structured as a computer-based self-study course. [Return to Map](#)

MQ70 - Application Design with MQSeries

Course Code: MQ70

Duration: 2.5 Days

Overview:

This course discusses the use of MQSeries functions and capabilities and how to apply these MQSeries characteristics to the program design. Topics include Data Analysis, Selective message processing, triggers MQI Clients, data conversions and channel exits, and event messages. Sources for code examples are discussed, including a download of source code from the MQSeries Support Pacs and review of the code. technologies and how to integrate them to build a solution.

Class paper exercises are used as reinforcements for the discussion topics. It is assumed that students are aware of MQSeries coding techniques and practices prior to attendance in this class.

Audience:

This course is designed for anyone who is experienced in the use of MQSeries and has responsibility for the design, development, and the implementation of an enterprise solution that involves MQSeries. It is one of the recommended steps to be completed in the path leading to qualification as an MQSeries Certified Application Developer.

Prerequisites:

The student should be generally self-sufficient, that is, able to perform tasks at the following level with limited assistance from peers, product experts, and documentation.

- W** Experience and expertise in one or more MQSeries supported programming languages.
- W** MQSeries experience in programming and implementing its basic functions and facilities.
- W** Ability to translate an external design into an internal design.
- W** Understand distributed application design concepts.

W Experience in implementing software across multiple platforms.

W Ability to describe processes used for transaction management and commit control.

Objectives:

at the conclusion of this course you should be able to:

- W** Recommend appropriate design that implements messaging and queuing functions, based on a high level design
- W** Implement the design, producing an application solution that is fully tested and functionally complete
- W** Incorporate any system type applications that will contribute to the overall success of the project

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ66 - MQIntegrator Workshop

Course Code: MQ66

Duration: 5.0 Days

Overview:

Provide an introduction to the workings of MQIntegrator.

Audience:

System administrator, system programmers.

Prerequisites:

none

Objectives:

By the satisfactory conclusion of this course, you will have been provided with 'an introduction to MQIntegrator'.

Course Content:

- W** History of MQIntegrator
- W** Features

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W APIs

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ07 - MQSeries Connections for Domino

Course Code: MQ07

Duration: 2.0 Days

Overview:

To provide a technical overview and practical introduction to the tools that exist for integration between Lotus Domino and enterprise applications using MQSeries (and CICS):

W MQSeries link LotusScript Extension (MQLSX)

W MQSeries Enterprise Integrator for Lotus Notes (MQEI)

To provide an overview of the current and emerging enterprise integration capabilities from Lotus.

Audience:

Technical Professionals including Consultants, Systems Integrators and Service Providers, who have a requirement to integrate Domino and the Web with enterprise applications.

Prerequisites:

To obtain maximum benefit from the class, students must already have MQSeries and Lotus Notes application development skills. The required skills can be obtained by attending:

W MQSeries Technical Workshop (MQ15Y)

W Lotus Notes R4 Application Development 1 (LN455Y)

W Some familiarity with LotusScript (or VisualBasic) is also recommended.

This course will NOT teach basic MQSeries or Lotus Notes skills.

Objectives:

On completion of this course, students will:

W Understand the concepts behind these tools

W Have practical experience of installing the MQLSX and MQEI

W Have experience of programming solutions with the MQLSX and MQEI

W Be able to implement a simple MQLSX or MQEI application

W Be aware of the Lotus enterprise integration capabilities

Course Delivery:

This course is structured in a lecture/lab format. The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ30 - MQSeries Advanced System Administration

Course Code: MQ30

Duration: 2.5 Days

Overview:

This course is designed to teach some of the more advanced skills required by an administrator for any of the MQSeries products except MQSeries for VSE/ESA. Specifically, the course covers the following

W MQSeries for AIX Version 5 Release 1

W MQSeries for AS/400 Version 5 Release 1

W MQSeries for AT&T UNIX Version 2 Release 2

W MQSeries for Digital OpenVMS Version 2 Release 2.1.1

W MQSeries for Digital UNIX Version 2 Release 2.1

W MQSeries for HP-UX Version 5 Release 1

W MQSeries for OS/2 Warp Version 5 Release 1

W MQSeries for OS/390 Version 2 Release 1

W MQSeries for SINIX and DC/OSx Version 2 Release 2

W MQSeries for Sun Solaris Version 5 Release 1

W MQSeries for Tandem NonStop Kernel Version 2 Release 2.0.1

W MQSeries for Windows Version 2 Release 0

W MQSeries for Windows Version 2 Release 1

W MQSeries for Windows NT Version 5 Release 1

Audience:

Technical personnel who require the skills to be an administrator for any of the MQSeries products except MQSeries for VSE/ESA, or to provide support to others performing this task.

Prerequisites:

The course assumes a level of knowledge and skill that would be obtained by attending either of the following courses:

W MQ15 - MQSeries System Administration

W MQ20 - MQSeries for OS/390 System Administration and completing successfully all the practical exercises on the course. However, you will be better prepared for this course, and will derive more benefit from it, if you have acquired some practical experience in working with MQSeries since attending either MQ15 or MQ20.

Objectives:

After attending the course, you should be able to:

W Configure message channels and MQI channels, and manage them effectively.

W Manage a dead letter queue.

W Implement aspects of security in a distributed queuing environment.

W Improve the performance of MQSeries taking into account the requirements of your installation.

W Understand the scope of automated function that is now available to support the management of an MQSeries network.

W Implement an MQSeries SupportPac.

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Course Contents:

- W Introduction
- W Managing Message Channels
- W Managing MQI Channels and Channel Security
- W Performance and Tuning
- W Managing an MQSeries Network

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MW30 - IBM MQSeries Workflow V3.2 Modeling and API

Course Code: MW30

Duration: 5.0 Days

Overview:

This course is designed to provide a fundamental overview of MQSeries Workflow. Students will build a complete business process model using the Buildtime interface and deploy it into the MQSeries Workflow Runtime environment. Concepts covered will include the definition of workflow staff, staff assignment to tasks, control flow, transition conditions, registration of workflow programs and definition of required data structures. Students will also gain skills in the administration of the MQSeries Workflow Runtime environment using the Administration Utility. Finally, the course will provide extensive discussions of the MQSeries Workflow APIs (C and C++, with some discussion of ActiveX). Topics will include writing a MQSeries Workflow program including the reading and writing of container data, designing a custom workflow client and the handling of process instances and worklists.

Audience:

Individuals who need to work with MQSeries Workflow Version 3. These include:

- W Process analysts and designers

- W Workflow solution specialists
- W Designers of application development environments which use workflow management techniques
- W Users of the MQSeries Workflow Buildtime
- W Project leaders in a workflow project
- W MQSeries Workflow administrators
- W Individuals interested in gathering in-depth knowledge of the product architecture, settings and the tuning mechanism of the product
- W MQSeries Workflow Application Designers and Programmers

Prerequisites:

You should have the following skills and knowledge prior to attending this class:

- W A basic understanding of workflow concepts or process automation
- W Experience in developing business application programs
- W Competency in C or C++

Objectives:

After successfully completing this course, you should be able to:

- W Understand the concepts and architecture of MQSeries Workflow
- W Model a business process using the Buildtime Client interface
- W Use the maintenance and configuration of the Workflow servers
- W Design and write a Workflow-aware application

Course Contents:

- W MQSeries Workflow Overview
- W Components and Fundamental Objects
 - X Buildtime
 - X Runtime

- X The API
- W The Messaging Layer
- W Installation and Configuration
- W The Buildtime Component
- W Introduction to Modeling
 - X Process Models
 - X Basic Connectors
- W Advanced Buildtime:
 - X Advanced Connectors
 - X Blocks and Sub-processes
- W Administration
 - X Execution Server
 - X Administration Server
 - X Scheduling Server Cleanup Server
 - X Problem Determination
 - X Audit Trail
- W API Overview
- W Activity Implementations
- W Workflow Clients

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MW50 - MQSeries Workflow for OS/390

Course Code: MW50

Duration: 3.0 Days

Purpose:

MQSeries Workflow, IBM's workflow manager, enables organisations to define, implement, track and continuously improve the processes most integral to their success. MQSeries Workflow links people, information, and applications to streamline business

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processes that deliver improved efficiency and increased responsiveness. MQSeries Workflow is part of IBM's strategic MQSeries product line. MQSeries Workflow is also part of IBM's EDMSuite (Enterprise Document Management), the portfolio of Web-enabled

Audience:

Process analysts and designers, workflow solution specialists, designers of application environments that use workflow management technologies, project leaders in a workflow project, and workflow system architects, system administrators who require an introduction to the MQSeries Workflow for OS/390 environment

Prerequisites:

You will benefit from prior understanding of concepts relating to:

W DB2 and other relational database subsystems

W MQSeries transactional messaging

W Process based system analysis and implementation

Objectives:

By the satisfactory conclusion of this course, you should be able to:

W Understand the business problems that can be solved using workflow technology

W Architect a workflow-enabled application system using MQSeries Workflow for OS/390 server

W Build, import and execute a complete process model into MQSeries Workflow for OS/390 server

W Understand some internals of MQSeries Workflow for OS/390 server

W Connect MQSeries Workflow Client to S/390 Server

Course Contents:

W Overview of MQSeries Workflow

W MQSeries Workflow for OS/390 Architecture

W Overview

W Server Framework

W Work Load Manager (WLM)

W RRS

W DB2 & MQSeries Setup Requirements

W MQSeries Workflow for S/390 Installation & Customisation

W Buildtime for MQSeries Workflow for S/390 Server

W FDL

W Import to MQWF/390 Server Database

W S/390 Program Registration to Workflow

W Mapper & Mapping Data Language (MDL)

W NLS & Codepage Conversion

W MQSeries Workflow for S/390 Administration Server

W MQSeries Workflow for S/390 Program Execution Server (PES)

W CICS/IMS Program Invocation

W MQ-CICS/IMS Program Invocation

W User-defined Program Invocation

W MQSeries Workflow for S/390 APIs

W COBOL APIs for integration of host applications

W Differences with MQWF Workstation APIs

W MQSeries Workflow for S/390 Diagnosis

W MQSeries Workflow Client Connection

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

MQ35 - MQSeries MQSeries Adaptor Offering Technical Introduction

Course Code: MQ35

Duration: 1.0 Day

Purpose:

This course is designed to provide a technical introduction to the features available in the MQSeries Adapter Offering. We will discuss the MQSeries Adapter Kernel, MQSeries Adapter Builder, the Open Application Group standard definitions using XML, interaction with other MQSeries family products and the OS/400 RPG API Builder. This course provides the basic knowledge required prior to attending the MQSeries Adapter Offering Technical Workshop (MQ36).

This one day presentation class will give you a general overview of the IBM MQSeries Adapter Offering - what it is, what it does, how it works and how it will help you in the integration of applications.

Audience:

People interested in learning about the MQSeries Adapter Offering and technical people considering application integration involving MQSeries.

Prerequisites:

A basic understanding of the concepts of messaging and queuing using MQSeries (which can be gained by attending - A Technical Introduction to MQSeries (MQ01) or equivalent experience). A basic understanding of the issues surrounding interfacing and application integration.

Objectives:

By the end of this course, the student should be able to:

- Identify and evaluate the functions of the MQSeries Adapter Offering
- Identify the MQAB (MQSeries Adapter Builder) - its function and implementation
- Identify the MQAK (MQSeries Adapter Kernel) - its function and how it is used to support the MQSeries Adapter Offering
- Explain how the OAG (Open Application Group) XML BOD (Business object Definitions) are used to create non application specific interfaces

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- Identify which application adapters are available as part of the MQSeries Adapter Offering
- Evaluate the MQSeries Adapter Offering as an adjunct to other MQSeries family products.

Topics Covered:

- Introduction to MQSeries Adapter Offering
- XML Overview

Course Delivery:

This course is structured in a lecture format.

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MQ36 - MQSeries MQSeries Adaptor Offering Workshop

Course Code: MQ36

Duration: 3.0 Days

Purpose:

This course provides an in-depth technical workshop of the features available in Message Queue Adapter Offering, Adapter Builder. The student will learn how to produce various integration adapters using the MQ Adapter Builder. They will obtain an in-depth knowledge on how the MQ Adapter uses the MQ Adapter Kernel as an underlying API set to send and receive XML messages through MQSeries. These messages will be XML either based on the Open Application Group standard definition or just standard XML. This three-day workshop will give you an in-depth knowledge of the IBM Message Queue Adapter Builder - what it is, what it does and how it works, and how it will help you in your integration of distributed and non distributed applications using open standards.

Audience:

People interested in learning about the MQSeries Adapter Offering and technical people considering application integration involving MQSeries.

Prerequisites:

A basic understanding of the concepts of the messaging and queuing model and how that model has been implemented in

MQSeries. This information can be gained from attending Technical Introduction to MQSeries (MQ01) or equivalent experience. A basic understanding of the MQSeries Adapter Offering Product. This information can be gained from attending MQSeries Adapter Offering Technical Introduction (MQ35).

A basic knowledge in building application integration interfaces

Objectives:

By the end of this course, the student should be able to:

- Install the MQAB tool on an NT workstation
- Construct and configure the MQAB repository UDB2,
- Import and build application definitions into the MQAB repository, both legacy and XML -eXtended Markup Language
- Develop mediation between an application and XML defined messages
- Develop mediation between an XML defined messages and an application API - (Application Programming Interface)
- Build simple MQSeries queues
- Configure MQSeries Adapter Kernel for NT
- Generate the Developed adapters
- Compile the adapters on NT,
- Maintain and modify Adapters from within the MQAB.

Topics Covered:

- In-depth overview to the MQSeries Adapter Offering MQAB tool
- Brief overview of the MQSeries Adapter Kernel (MQAK) environment
- Build application definition files and import application definition files
- Import XML DTD file definitions
- Build Legacy to OAG XML adapters
- Build XML to OAG XML adapters
- Build XML to XML adapters
- Build Legacy to Legacy adapters

- Generate and Compile MQAB Adapters
- Configure and Implement the Adapters into the MQAK
- Maintain the Adapter from MQAB.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD210 - Domino Designer Fundamentals

Course Code: AD210

Duration: 3.0 Days

Overview:

This course is a hands-on introduction to the basic skills of working in the Domino Designer development environment. Through instructor lecture and student-centered activities and exercises, students learn how to use Domino design elements to create an application that addresses business needs. By the end of the course, students will be able to incorporate business requirements into basic multi-client applications and to appropriately use many of the R5 Domino Designer design elements.

Audience:

The target audience is: Application developers with no experience using Domino Designer to develop applications.

Prerequisites:

The prerequisites for this course include:

- W** Completion of Introducing the Notes Client and Extending the Notes Client or equivalent knowledge and experience.
- W** Completion of the Domino Designer Guided Tour (available in the product On-line Help).
- W** Experience developing one or more applications in other application development tools.

Objectives:

By the end of this course, the student should be able to:

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- W** Create and display content pages
- W** Explain the relationship between pages, documents and forms
- W** Create and modify forms to capture information from users
- W** Create and modify views for organising information
- W** Add logic to forms and views
- W** Audit application security settings
- W** Design and modify application navigational structure

Topics Covered:

- W** The Domino application and design environment
- W** Creating and modifying pages to display text and graphics
- W** Creating documents as well as Modifying forms and creating fields
- W** Building views to organise documents and Making views available to users
- W** Formula language basics as well as Using formulas to validate and translate fields
- W** Creating agents to update application information and Creating view and form actions
- W** Defining various security levels for application users
- W** Using hide/when options to display or hide information
- W** Using links to make application elements available to users
- W** Structuring the display of the application using framesets
- W** Using outlines to navigate an application and Creating an image map including hotspot links

Course Delivery:

This course is structured in a lecture/lab format. The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD240 - Domino Application Security and Work Flow

Course Code: AD240

Duration: 2.0 Days

Summary Description:

This course builds on the principles of application development presented in Domino Designer Fundamentals and the Domino Designer Fundamentals Tutorial. Through lecture and hands-on activities, students will learn how to effectively allow and deny access to applications to meet the needs of the organisation, and how to add workflow to applications, as well as understand the relationship between workflow and security. Basic guidelines for workflow on the Web are included.

Audience:

The target audience is:
Application developers who have experience developing simple, single-database applications.

Prerequisites:

The prerequisites for this course include:
Completion of the Domino Designer Fundamentals course or equivalent knowledge, skills, and experience.
Completion of the Domino Designer Fundamentals Tutorial course or equivalent knowledge, skills, and experience.
A minimum of three (3) months experience developing and troubleshooting single-database applications.

Objectives:

By the end of this course, the student should be able to:
Implement application-level security
W Develop dynamic, secure workflow applications

Topics Covered:

The course covers the following topics:
W Security models
W Use of groups and roles
W Field level security

- W** Document security
- W** Inter-database vs. intra-database workflow
- W** Intra-database workflow
- W** Inter-database workflow
- W** Design dependencies

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD270 - Domino Application Architecture

Course Code: AD270

Duration: 2.0 Days

Overview:

This course offers lectures, demonstrations, and hands-on activities to guide students in learning how to design efficient business applications that leverage the power of Domino. Given business scenarios, students will design solutions that capitalise on Domino's server requirements, programming choices, multiple client support, and data access capabilities.

Audience:

The target audience is:
Domino application developers of all skill levels and all experience levels who want to improve the design of their applications through a better understanding of the underlying architecture of Domino.

Prerequisites:

The prerequisites for this course include:
Attendance in the Domino Designer Fundamentals course, the Application Development 1 R4.5 course, the Domino Web Development R4.5 or R4.6 course, or equivalent knowledge and experience.

Objectives:

By the end of this course, the student should be able to:
Design effective and efficient business applications that

Education/Certification Quick Reference Course Descriptions

support heterogeneous clients and access a variety of data sources.

Course Delivery:

This course is structured in a lecture/lab format. The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD310 - Maintaining Data Access with LEI

Course Code: AD310

Duration: 2.0 Days

Summary Description:

Lotus Enterprise Integrator is a set of tools which facilitates data transfer and scheduling of jobs. Through lecture and hands-on activities, participants in this course will learn how to integrate Domino applications with external data sources. They will connect disparate databases and transfer data between them in a variety of situations.

Audience:

The target audience for this course is Domino application developers and system administrators who need to administer applications, develop applications, or both develop and administer applications that connect disparate systems and support.

Prerequisites:

The prerequisites for this course include:
Six or more months experience as a Lotus Notes Developer. Experience with LotusScript or a similar programming language is recommended but not essential

Objectives:

By the end of this course, the student should be able to:

- W** Install and configure an LEI server
- W** Create connection and data transfer documents
- W** Perform basic troubleshooting tasks
- W** Build simple LotusScript to transfer data

W Identify the differences between LEI Real Time Notes and DECS

W Perform pre-processing operations on Connector data prior to data transfer using MetaConnectors.

Topics Covered:

The Maintaining Data Access with LEI course covers the following topics:

- W** Installing an LEI server in a cluster
- W** Creating connection and transfer documents
- W** Scheduling activities
- W** Combining dependent activities
- W** Troubleshooting transfer activities
- W** Comparing LEI Real Time Notes to DECS
- W** Basic LEI administration task

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD500 - Using JavaScript in Domino Applications

Course Code AD500

Duration: 2.0 Days

Overview:

Through lecture/demonstration and hands-on exercises, this course provides students with the skills to use JavaScript in the Domino R5 environment, to extend their applications by:

- W** Directly manipulating the integrated Document Object Model
- W** Taking advantage of JavaScript Events in the IDE
- W** Reducing server load by performing client-side processing
- W** Enhancing data gathering with new techniques
- W** Working with frames

Audience:

The target audience is:
Application developers who develop Notes/Domino applications and want to learn how to use the Document Object Model to develop more dynamic Domino applications for browser clients.

Prerequisites:

The prerequisites for this course include:
Experience with the Domino R5 Designer client including:

- W** Creating forms and pages
 - W** Writing code in the Programmers pane
 - W** Using the design preview options
 - W** Building a frame set and adding frames
- W** Participants should also have programming experience with an object-oriented language. They do not need experience with JavaScript before attending the course.

These skills and others can be gained by attending:

- W** Lotus authorised courses Application Development 1 and Developing Interactive Web Applications 1
- or
- W** Domino Web Development
- W** Domino Application Development Update

Objectives:

- By the end of this course, the student should be able to:
- W** Manipulate the Document Object Model to extend the capabilities of their Web browser applications
 - W** Perform client-side processing, such as field
 - W** Use the new event structure in R5 to trigger JavaScript code
 - W** Manipulate, and update frame content
 - W** Gather input by launching independent browser windows
 - W** Make the user interface more interactive with mouse control

Education/Certification Quick Reference Course Descriptions

- W Create and update keyword lists in a browser

Topics Covered:

The course covers the following topics:

- W Defining JavaScript
- W Changing a document's properties
- W Coding a link hotspot with JavaScript
- W Creating a submit button
- W Writing and retrieving input values
- W Validating fields in browser
- W Formatting user inputs
- W Building a list of choices
- W Retrieving and adding single values in a select object
- W Retrieving multiple values in a select object
- W Building dialog boxes
- W Opening pages in frames using JavaScript
- W Creating rollover buttons

Course Delivery:

This course is structured in a lecture/lab format. The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD580 - Creating Domino Agents Using Java

Course Code: AD580

Duration: 2.0 Days

Overview:

This course is a concentrated lecture/lab workshop on programming in Domino with Java. Emphasis is on creating agents that manipulate Domino applications and/or data elements.

Audience:

The target audience is Application developers experienced in both Domino and Java who wish to learn how to use Java in Domino applications.

Prerequisites:

The prerequisites for this course include:

- W Attendance in the Domino Application Architecture course or equivalent knowledge and experience.
- W General knowledge and experience of the Java programming language.

Objectives:

By the end of this course, the student should be able to:

- W Apply the new and enhanced application development features in the Domino Designer 5.0 to the development of multi-client applications.
- W Apply and define some of the new @Functions and @Commands

Topics Covered:

The course covers the following topics:

- W New Domino Designer Integrated Development Environment (IDE)
- W New design elements for browsers and Notes clients:
 - X Outlines
 - X Pages
 - X Framesets
 - X Resources
 - X Applets
- W Enhanced form and page components:
 - X Tables
 - X Non-scrolling editor regions
 - X Graphics
 - X Static/computed text
 - X Image maps
- W New and enhanced formula language options
- W Field enhancements and controls

- W New UI applets

- W Domino Enterprise Connection Services (DECS): a non-programming method for including live, external data in R5 applications

Course Delivery:

This course is structured in a lecture/lab format. The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA210 - Implementing a Domino Infrastructure

Course Code: SA210

Duration: 3.0 Days

Overview:

Following a prescribed roll-out plan, students will install and set up one or more Domino servers in a scaleable fashion, including necessary topologies, Notes client set up, and browser client configuration.

Audience:

The target audience is: Administrators new to Domino responsible for initial install and set up of Domino R5 servers.

Prerequisites:

The prerequisites for this course include:

- W A basic understanding of network technologies, industry standard protocols (e.g., TCP/IP), and concepts.
- W Database and messaging administration experience is recommended (e.g., SMTP). For students with prior e-mail experience, perform the following tasks:
 - W Review Notes Client Guided Tour (provided with R5 Notes Client)
 - W Attend the Moving to Notes Mail end-user course
- W Attend the Moving to Notes Mail end-user course For students with no prior e-mail experience, attend the following courses, in addition to the above prerequisites:

Education/Certification Quick Reference Course Descriptions

W Introducing the Notes Client

W Extending the Notes Client

Objectives:

By the end of this course, the student should be able to:

W Install, set up and configure one or more Domino servers.

W Create users and set up associated clients.

W Troubleshoot common install and set-up problems.

W Compile an action item list for use back at the job, specifically for installing and setting up the student's environment.

Topics Covered:

The course covers the following topics:

W Install, setup and configure one or more Domino servers

W Create users and setup associated clients

W Troubleshoot common install and setup problems

W Compile an action item list for use back at the job, specific for installing and setting up the student's environment

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA260 - Deploying Domino Applications

Course Code: SA260

Duration: 2.0 Days

Summary Description:

Students will deploy Domino applications in an existing infrastructure according to user needs and server resources described in the scenario company (Worldwide corporation) infrastructure plan and implemented as a result of the Implementing a Domino Server Infrastructure course.

Audience:

The target audience is Administrators new to Domino who will be responsible for deployment of Domino 5.0 applications.

Prerequisites:

The prerequisites for this course include:
Attendance in the Implementing a Domino Server Infrastructure course

Objectives:

By the end of this course, the student should be able to:

W Determine a deployment strategy

W Set database access

W Roll out applications to servers and users

W Manage databases

W Monitor databases

W Troubleshoot deployment problems

Topics Covered:

The course covers the following topics:

W Identifying user and application requirements

W Setting up database access

W Organising databases

W Determining database backup strategy

W Rolling out databases to servers

W Rolling out databases to users

W Identifying deployment problems

W Solving deployment problems

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA310 - Maintaining a Domino Server Infrastructure

Course Code: SA310

Duration: 4.0 Days

Overview:

In a preconfigured R5 server environment, students will perform basic server maintenance and troubleshooting tasks, and discover basic concepts about Domino administration.

Audience:

The target audience is:
New Domino administrators responsible for maintaining existing Domino R5 servers.

Prerequisites:

The prerequisites for this course include:

W A basic understanding of network technologies, industry standard protocols (e.g., TCP/IP), and concepts.

W Database and messaging administration experience is recommended (e.g., SMTP).

For students with prior e-mail experience, perform the following tasks:

W Review Notes Client Guided Tour (provided with R5 Notes Client)

W Attend the Moving to Notes Mail course

For students with no prior e-mail experience, attend the following courses, in addition to the above prerequisites:

W Introducing the Notes Client

W Extending the Notes Client

Objectives:

By the end of this course, the student should be able to:

W Maintain existing Domino servers, databases, and networks, using available administration tools.

W Monitor existing Domino servers

W Perform common server maintenance troubleshooting tasks.

Education/Certification Quick Reference Course Descriptions

W Evaluate current Domino infrastructure for changes to facilitate maintenance.

Topics Covered:

The course covers the following topics:

W Monitoring and Maintaining Servers

W Monitoring and Maintaining Databases

W Monitoring and Maintaining Mail Routing

W Monitoring and Maintaining Calendaring and Scheduling

W Monitoring and Maintaining Web Servers

W Monitoring and Maintaining Clustering

W Monitoring and Maintaining Partitioning

W Updating Servers, Databases, and Web Servers

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA330 - Maintaining Domino Users

Course Code: SA330

Duration: 1.0 Day

Overview:

Using a preinstalled Domino R5 infrastructure, students will create and modify user settings and connections for both Notes clients and browser clients. As part of this process, students will create and distribute Notes IDs and recertify, rename, and terminate users.

Audience:

The target audience is New R5 Administrators responsible for maintaining users of Domino R5.

Prerequisites:

The prerequisites for this course include:

W A basic understanding of network technologies, industry standard protocols (e.g., TCP/IP), and concepts.

For students with prior e-mail experience, perform the following tasks:

W Review Notes Client Guided Tour (provided with R5 Notes Client)

W Attend the Moving to Notes Mail course.

For students with no prior e-mail experience, attend the following courses, in addition to the above prerequisites:

W Introducing the Notes Client

W Extending the Notes Client

Objectives:

By the end of this course, the student should be able to:

W Create new Domino users

W Modify Domino user characteristics

Topics Covered:

The course covers the following topics:

W Registering users

W Creating certificates

W Distributing and storing certificates and IDs

W Updating user workspace and servers

W Terminating Domino users

W Re-evaluating user naming conventions

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA410 - Performance Tuning a Domino Infrastructure

Course Code: SA410

Duration: 2.0 Days

Overview:

Students use tools and develop skills to address resource utilisation, load balancing, and issues that affect infrastructure performance.

Audience:

The target audience is Advanced system administrators who want to optimise the performance of their Domino infrastructure.

Prerequisites:

The prerequisites for this course include:

Attendance in the Maintaining a Domino Server Infrastructure course or equivalent knowledge and experience.

Objectives:

By the end of this course, using the appropriate tools, the student should be able to:

W address resource utilisation situations

W perform load balancing that affect infrastructure performance

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

SA470 - Transitioning a Domino Infrastructure to R5

Course Code: SA470

Duration: 2.0 Days

Overview:

This intensive course will provide students with the skills necessary to plan, test and implement a transition from Domino 4.5 to R5, including coexistence issues and strategies.

Education/Certification Quick Reference Course Descriptions

Audience:

The target audience is Experienced Domino 4.5/4.6 System Administrators, Network Support Personnel, Consultants, and IT Managers responsible for migrating a Domino 4.5/4.6 deployment to R5.

Prerequisites:

The prerequisites for this course include:

W Experience in administering a Domino R4.5/4.6 network

W Attendance at the Domino System Administration

W Update workshop, or equivalent knowledge

Objectives:

By the end of this course, the student should be able to:

W Establish an appropriate environment to test the coexistence and migration process

W Upgrade 4.5 users and networks to release 5.0.

W Describe coexistence issues in a mixed Notes/Domino release environment, including 4.5 clients accessing 5.0 servers.

W Solve common upgrade problems

Topics Covered:

The course covers the following topics:

W Planning the transition through the test, pilot, and production rollout phases

W Performing the recommended upgrade sequence for servers in multi-server environments

W Describing and performing an upgrade of Notes mail files and clients

W Managing coexistence in different areas, including mail routing and database access.

W Upgrading messaging to include SMTP routing and MIME storage.

W Describing and performing R5 infrastructure enhancements such as Transaction Logging and Directory Catalogs

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

ST720 - Administering a Sametime Infrastructure

Course Code: ST720

Duration: 2.0 Days

Overview:

Through discussion, demonstration, activities, and exercises, administrators will learn how to install and administer single and multiple Sametime servers in Domino environments. The Sametime server's Web-based Administration Tool and Notes/Domino workspace will be covered for administering the Sametime server. The course will also provide an abbreviated introduction to Sametime end-user basics.

Audience:

Administrators with previous Domino administration experience whose organizations have recently purchased and/or installed Domino environment integrated Sametime servers on their network. Students from non-Domino environments whose organizations have purchased Sametime Web-only servers will have no experience with Domino terminology and structure, and will need to have Domino experience before attending this course.

Prerequisites:

The prerequisites for this course include:

- An operational knowledge of PCs and Windows basic functions
- Knowledge of Web browsers and their basic functions
- Previous administration experience
- Lotus Notes administration experience

Objectives:

By the end of this course, the student should be able to:

- Install single and multiple Sametime servers in a Domino environment or know how to get installation information
- Access and use the Sametime Administration Tool and Notes/Domino interface
- Establish and maintain user and administrator access to Sametime
- Get more help
- Be able to apply Sametime end-user basics

Topics Covered:

The course covers the following topics:

- Installing Sametime servers in a Domino environment
- Configuring, Monitoring, and Administering the Sametime server
- Levels of Sametime Access and Security
- Using Sametime

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

ST500 - Sametime 2.0 Integration for Domino Web Applications

Course Code: ST500

Duration: 2.0 Days

Overview:

This course teaches Web application developers how to customize and develop real-time collaborative applications with Lotus Sametime. By the end of this course developers will be able to customize a Web application using Lotus Sametime Java 2 toolkit, including adding awareness, conversation and shared objects to an existing Web application

Audience:

Developers attending this course should have experience developing Web applications and writing Java code

Prerequisites:

The prerequisites for this course include:

Education/Certification Quick Reference Course Descriptions

- Experience developing Web applications
- Experience writing Java code and/or JavaScript
- Experience developing with HTML

Objectives:

By the end of this course, the student should be able to:

- Use the Sametime Java integration tools to develop applications
- Add on-line awareness to Web applications
- Add who-is-here to Web applications
- Enable web applications for on-line meetings
- Preparing to use the Sametime integration tools
- Adding on-line awareness
- Adding who-is-here
- Enable applications for on-line meetings

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

LW400 - Developing Applications Using Lotus Workflow 3

Course Code: LW400

Duration: 2.0 Days

Overview:

This course provides ideas and hands-on activities that will enable both Domino Application Developers and Process Analysts/Designers to design and create workflow applications using the out-of-the-box functionality of Lotus Workflow 3.0. This course does address the Lotus Workflow LotusScript API and events, but only at a very basic level; there are no programming exercises.

Audience:

This course is appropriate for individuals evaluating how Lotus Workflow could be used in their organization as well as new Lotus Workflow customers.

Prerequisites:

The prerequisites for this course include:

- Knowledge of the business processes used in companies. This course will give ideas for determining how to implement those business processes in Lotus Workflow.
- Experience using the UI of the Domino R5 client.

Objectives:

By the end of this course, the student should be able to:

- Design and create workflow applications using the out-of-the-box functionality of Lotus Workflow 3.0.
- Understand the Lotus Workflow LotusScript API and events at a very basic level

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

DD710 - Domino.Doc System Administration 3.0

Course Code: DD710

Duration: 2.0 Days

Overview:

An essential course for Domino.Doc administrators who are responsible for planning, installing, and maintaining Domino.Doc.

Audience:

Administrators with previous Domino administration experience whose organizations have recently purchased and/or installed Domino.Doc

Prerequisites:

The prerequisites for this course include:

- Completion of Notes 4.6 System Administration 1 or
- Implementing a Domino R5 Infrastructure and Maintaining Domino R5 Servers and Users courses or have the equivalent knowledge, skills and experience

- Working knowledge of at least one network operating system

Objectives:

By the end of this course, the student should be able to:

- Describe the Domino.Doc 3.0 features and architecture
- Plan for installation of a Domino.Doc 3.0 environment
- Install Domino.Doc server software
- Perform post-installation and post-library creation tasks
- Build a storage hierarchy
- Configure Domino.Doc using binder types and document types
- Create, manage, and troubleshoot Domino.Doc replicas
- Modify and Move a file cabinet
- Implement and customize a document lifecycle
- Add an ODMA application to Domino.Doc
- Install the Domino.Doc Desktop Enabler and Desktop Enabler Plus clients
- Explore a Domino.Doc library using the Windows Explorer Interface
- Define macro-enabled and support applications
- Maintain and Performance tune a Domino.Doc environment
- Integrate form action for capturing Notes documents into Domino.Doc

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

KS300 - Implementing a Lotus Discovery Server 1.0

Course Code: KS300

Duration: 2.0 Days

Overview:

This course covers installation, configuration and maintenance of Lotus Discovery Servers.

Education/Certification Quick Reference Course Descriptions

Audience:

Administrators with previous Domino administration experience whose organizations have recently purchased and/or installed Lotus Discovery Server

Prerequisites:

The prerequisites for this course include:

- Basic knowledge of HTTP and TCP/IP protocols
- Familiarity with Microsoft IE 5.01 (or higher)
- Working knowledge of Windows NT operating system
- Domino 5.x Administration experience (installing, configuring and maintaining an R5 server)
- (Optional) Sametime administration experience.

Objectives:

By the end of this course, the student should be able to:

- Describe the Lotus Knowledge Discovery System (KDS)
- Describe the Lotus Knowledge Discovery Server (LDS)
- Perform the steps to install and configure LDS
- Perform basic services monitoring and maintenance tasks
- Assign sources for user and data information
- Create and configure the KMap (taxonomy)
- Create and modify user profiles and affinities
- Perform Metrics maintenance tasks
- Perform basic services monitoring and maintenance tasks
- List KDS planning issues

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

DD420 - Domino.Doc Customization and the API

Course Code: DD420

Duration: 3.0 Days

Overview:

This course will teach experienced Notes developers, customization options, methods and strategies for Domino.Doc 3.0, encompassing simple, extended and advanced techniques using the API.

The program will consist of lecture, demonstration, and presentation sessions, as well as extensive hands-on sessions dealing with customization techniques and methodologies applicable to the UI, document lifecycle, document interchange, integration of third-party applications and ODMA compliant applications.

Audience:

Experienced Notes developers

Prerequisites:

The prerequisites for this course include:

- Notes System Administration 1 (R4.6) or Implementing a Domino Infrastructure (R5)
- Notes Application Development 1 (R4.6) or Domino Designer Fundamentals (R5)
- Minimum 6 months LotusScript experience, and LotusScript (R4.6) or
- Creating Agents using LotusScript (R5)
- Domino.Doc End-User 3.0 or equivalent.
- Additional beneficial skills: Visual Basic / Visual Basic for Applications C++

Objectives:

By the end of this course, the student should be able to:

- Explain the Domino.Doc application architecture
- Define simple, extended and advanced customization
- Create and use Document Types, Binder Types, and Custom Views to customize a Domino.Doc Library structure
- Define and use the DocDocument object class to customize document lifecycle events
- Use the DocDocument object class in scheduled agents

- Understand the principles and methods of the Domino.Doc viewfile facility
- Understand the principles of Library Administration events
- Be able to create robust, customized event handlers which are compliant with the Domino.Doc application architecture Define and use the Domino.Doc API object model as a reference tool
- Use the API to connect to a Domino.Doc Library and explore the Library,
- File Cabinets and Binders structure, including Categorized Binders
- Understand the usage of the connection protocols (Notes and Http)
- Use the API to create new documents, set the document content, profile and security data
- Use the API to find, retrieve and update documents Manipulate the security objects provided by the API

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD62 - IBM WebSphere Application Server Development and Studio

Course Code: AD62

Duration: 5.0 Days

Purpose:

This course combines, in an accelerated manner, AD60Y IBM WebSphere Studio - Mentored Workshop, and AD61Y, IBM WebSphere Application Server Development Workshop. You will use the functions and tools of WebSphere Studio V3.0, VisualAge for Java V3.0, and WebSphere Application Server to design and assemble websites. The interaction of WebSphere Studio tools and the appropriate use of each tool are addressed. You will also learn to write and deploy Java applications using WebSphere Application Server V3.0.

Education/Certification Quick Reference Course Descriptions

Topics unique to IBM WebSphere Application Server such as security, control, personalisation, servlet deployment, and JavaServer Pages (JSP) are covered. Extensive lab exercises reinforce course topics as you build and publish to a web server, portions of an e-business website.ge

Audience:

This workshop is designed for application developers. It addresses the design and assembling of web sites but concentrates on writing/deploying web applications that generate dynamic content. The workshop will also prepare individuals to take the IBM WebSphere Studio Proficiency test and the IBM WebSphere Application Server Proficiency test. Information on these tests is posted on the following web site:

www.software.ibm.com/ad/certify

Prerequisites:

Java programming skills are needed for this workshop. Students should be familiar with JDK (1.1+) and be able to write Java applets/applications without assistance. Students should also have:

W a basic understanding of VisualAge for Java

W the ability to read and understand an HTML document

W an understanding of how the World Wide Web works

See recommended readings described at the following

URL <http://www.software.ibm.com/ad/certify/edu280.htm> Students should also have:

W a working knowledge of the World Wide Web and the Internet

W some experience creating Web sties, writing HTML, and deploying applets

Students will also find it beneficial to have some experience with a Web server and a relational database.

Note: VisualAge for Java, Professional Edition V3.0 will be used throughout the workshop.

Objectives:

After completing this course, you should be able to:

W Design, build, and assemble dynamic websites using WebSphere Studio.

W Use WebSphere Studio Workbench and other components of WebSphere Studio such as WebSphere Page Designer.

W Create and deploy JavaServer Pages using the WebSphere Studio Wizards.

W Develop Java applications using VisualAge for Java.

W Deploy Java applications using WebSphere Application Server.

W Understand and apply the Java Servlet API (2.1) and JavaServer Pages (JSP) 1.0.

W Use relational databases with Java servlets.

W Deploy JavaServer Pages, JavaBeans, servlets, and applets into web pages.

W Configure the IBM HTTP Server for the e-business environment.

W Learn about XML and how it relates to WebSphere.

Course Content:

W WebSphere Studio Workbench and Wizards

W IBM WebSphere Application Server Architecture

W Robust Web Application design concepts

W Development, design, deployment, and debugging of JavaBeans and Java Servlets used in construction of an e-business website

W Implications of HTTP Session implementations and multithreaded coding

W Coordination with Web Designers to create and edit JSPs used in an e-business website

W Securing Web applications

W IBM WebSphere specific APIs

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD65 - IBM WebSphere Application Server Advanced Edition and EJB Workshop

Course Code: AD65

Duration: 5.0 Days

Overview:

This combined lecture and hands-on workshop enables you to gain the basic skills necessary to write Enterprise applications in Java using IBM WebSphere Application Server Advanced Edition Version 3.0. The workshop focuses on the IBM WebSphere Application Server and the VisualAge for Java developer tool.

Note: VisualAge for Java, Enterprise Edition Version 3.0 is used throughout the workshop.

This workshop covers a compressed version of [OB61](#) in the first 2 days, application server architecture, servlet programming concepts and techniques (basic through advanced), JavaServer Pages (JSP) development, and security configuration. (This includes understanding and applying the Java Servlet API Version 2.1 and JSP Version 1.0.)

This workshop presents the Enterprise JavaBean (EJB) technology. EJB technology provides a programming model for building robust and scalable enterprise applications. Students will use the VisualAge for Java EJB development environment to build session and entity EJBs and deploy them in an existing e-business Web site. Students will use VisualAge for Java EJB development environment to build session and entity EJBs and deploy them in an existing e-business web site.

Hands-on exercises give students the opportunity to utilise the Java server-side programming model to build part of a sample web site for a company with a requirement for e-business.

Education/Certification Quick Reference Course Descriptions

Audience:

Application developers planning to develop applications using the VisualAge for Java EJB development environment.

Prerequisites:

Before attending this course, students should have:

- W** Java programming skills
- W** Understanding of basic object-oriented analysis and design concepts
- W** Familiarity with JDK Version 1.1 or later
- W** The ability to write Java applets and applications (without assistance)
- W** A basic understanding of VisualAge for Java
- W** The ability to read and understand an HTML document
- W** An understanding of how the World Wide Web works

Objectives:

After completing this course, the student should:

- W** Understand the features and functions of IBM WebSphere Application Server Advanced Edition
- W** Write Java applications for IBM WebSphere Application Server using VisualAge for Java
- W** Understand and apply the Enterprise JavaBean API Version 1.0; Java Servlet API Version 2.1; JavaServer Pages (JSP) programming model Version 1.0
- W** Deploy, configure, monitor, and manage an enterprise application in IBM WebSphere Application Server Advanced Edition Version 2.0

Course Contents:

- W** The IBM WebSphere Application Server Advanced Edition architecture
- W** Concepts and terminology of Servlet, JSP, and EJB technologies

W Development, design, and deployment of:

- X** Java Servlets
- X** JavaServer Pages
- X** Enterprise JavaBeans (session and entity EJBs)
- X** JavaBeans

used in construction of an e-business web site.

- W** Testing and debugging of Servlets, JSPs and EJBs in VisualAge for Java
- W** Server-side Java programming model to effectively provide robust and scalable web access to enterprise data and applications
- W** Introduction to Object-Relational mapping
- W** Using VisualAge for Java EJB development tools to map container managed fields to legacy database Tables (simple and intermediate mappings)
- W** Using VisualAge for Java to create container managed associations between EJBs
- W** Basics of distributed objects
- W** Fundamentals of transaction services and the EJB transaction model
- W** Accessing EJBs from Java clients
- W** Usage of JavaServer Pages to deliver dynamic content to a sample web site
- W** Connecting to databases using data sources and connection pooling
- W** Utilising IBM WebSphere Application Server security features to apply security policy to an enterprise application
- W** Configuration and use of the IBM HTTP Server
- W** Tracing and monitoring for WebSphere Application Server
- W** The workshop also provides a set of resources (URLs, books, and so on) that can be used for further exploration of the concepts and skills presented

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

OB15 - Practicing Object-Oriented Analysis and Design

Course Code: OB15

Duration: 5.0 Days

Overview:

The "Practicing Object-Oriented Analysis and Design" course is designed to teach students how to apply, in practice, proven object-oriented analysis and design techniques. Using techniques taken from OMT (Rumbaugh), OOSE (Jacobson) and RDD (Wirfs-Brock), the student will learn how to model the user requirements of a given problem domain and capture the analysis results in terms of static and dynamic models. An important aspect of the analysis chapter of this course, is that the various techniques are learned in a consistent way, as elements of a complementary approach to object-oriented development. In the design chapter, the students will learn how to transform the analysis results in implementable form, using object-oriented design techniques.

During the course, students apply the techniques they learn in several classroom exercises, using a simple case study throughout. In addition, students will also be set at work, practicing their acquired knowledge on another, non-trivial case study, under the guidance of the instructor.

The course consists of the following modules:

1. Introduction
 - Application development life-cycle strategies and the major schools of application development methodologies
2. Object-Oriented Analysis and Design, Part 1: Analysis
 - A complementary approach to software

Education/Certification Quick Reference Course Descriptions

development, making use of the following major techniques:

- X Use case requirements analysis
- X Finding candidate objects
- X Preparing a data dictionary
- X Object modeling & CRC analysis
- X Dynamic modeling (interaction diagrams and state transition diagrams)

3. Object-Oriented Analysis and Design, Part 2: Design

- X System design
 - { Technical architecture
 - { Application architecture, covering basic design principles, metrics and design patterns and frameworks
- X Object design
 - { Representation, covering implementing associations, constraints and inheritance
 - { Optimization, covering derived data policies, adding/eliminating redundant associations
 - { Persistence design: mapping the object model onto relational databases
- X Detailed CRC cards

4. Object-Oriented Method Evaluation

OMT (Rumbaugh), RDD (Wirfs-Brock), OOSE (Jacobson), OOD (Booch), OOA/OOD (Coad/Yourdon), FUSION (Coleman) and VMT+ (IBM)

Audience:

This course is designed primarily for students wishing to learn how to perform object-oriented application development and how to apply the object-oriented analysis and design techniques in practice:

- W analysts
- W designers
- W application system architects

W class or subsystem developers

W application programmers

W other technical professionals with an interest in applying object-oriented analysis and design.

Notice that, for those students who wish to understand object-oriented development methods and techniques rather than being able to perform them in practice, the course "Basic principles of Object-oriented Analysis and Design" may be more suitable.

Prerequisites:

Students should have a good understanding of object-orientation in general (at least the concepts should be known) and preferably have some experience doing application development activities.

Objectives:

Upon successful completion of this course, the student will be able to:

- W Apply Use Cases techniques to model the problem domain requirements
- W Use the techniques of OMT, OOSE and RDD to construct static and dynamic object models
- W Understand the design techniques required to produce a system and application architecture
- W Apply the design techniques to map and link the object models with relational databases
- W Produce detailed CRC-cards as the outcome of the design process.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

EB15 - Customising an e-Commerce Site using IBM WebSphere Commerce Suite V4.1

Course Code: EB15

Duration: 3.0 Days

Overview:

This workshop provides the student with the necessary programming skills to customise the business logic and shopping flow of a stores created using IBM WebSphere Commerce Suite (WCS) V4.1 to implement the business rules of a merchant. It includes understanding store features, the WebSphere Commerce Suite database and server architecture, Net.Data macro programming, creating C++ overridable functions and using WebSphere Commerce Studio V4.1 to create stores and customise store macros to support advanced shopping functionality.

Audience:

System integrators and programmers who need to customise the database, macros and overridable functions of a working WebSphere Commerce Suite system.

Prerequisites:

Before attending this class, the student must have the following:

- W Customising an e-Commerce Site with IBM WebSphere Commerce Suite Version 4.1 Web-book.
- W Understanding of the components, features and functions of IBM WebSphere Commerce Suite Version 4.1.
- W Understanding of the features of and services provided by online malls and stores.
- W Familiarity with using the operating system platform for implementation and its programming tools.
- W Experience using the Windows NT user interface and the Netscape Navigator V4 Web browser.
- W Understanding of creating content and programming for the Internet and the World Wide Web environment.
- W Understanding of HTML 3.2 syntax, including tables and forms.

Education/Certification Quick Reference Course Descriptions

- W Experience in database programming using SQL.
- W Experience in C++ programming.

Objectives:

At the conclusion of this course, you should be able to:

- W Describe the WCS architecture and how WCS commands, macros, overridable functions and the WCS database are used to implement the business rules of the shopping process.
- W Describe the structure of and important fields within the tables of the WCS database that implement the shopping process.
- W Write Net.Data macros that use ODBC to access the WCS database.
- W Use special variables and built-in functions in Net.Data macros.
- W Write overridable functions that use the WCS database to implement the business rules of the merchant.
- W Create stores and publish them to a Commerce Suite instance.
- W Create custom macros and overridable functions to implement specific features of an on-line store

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

EB01 Starting an e-commerce Site using IBM WCS Version 4.1 for Windows NT

Course Code: EB01Y

Duration: 2.0 Days

Overview:

This workshop provides practical experience of installing and configuring IBM WebSphere Commerce Suite V4.1. It includes creating stores using WebSphere Commerce Studio V4.1, creating and importing catalogs,

and performing site and store setup and administration tasks.

Audience:

Administrators and developers of e-commerce sites who have a conceptual understanding of WebSphere Commerce Suite and need practical skills.

Prerequisites:

- W "Starting an e-Commerce Site with IBM WebSphere Commerce Suite Version 4.1" Web-based self-study course - EB00Y
- W An understanding of the World Wide Web and use of a Web browser
- W Basic administration skills for a Web server (for example, Apache or IBM HTTP Server)
- W Basic operational skills for the Windows NT operating system
- W Basic operational skills for the AIX operating system (course EB02Y only)

Objectives:

At the end of this course, you should be able to:

- W Install and configure WebSphere Commerce Suite V4.1, WebSphere Commerce Studio V4.1 and their prerequisite software.
- W Configure a Commerce Suite instance
- W Create stores and publish them to a Commerce Suite instance
- W Create a product catalog
- W Create category and product templates using JSP technology
- W Use WebSphere Commerce Suite Administrator
- W Perform site and store setup and administration tasks

Course Contents:

- W WebSphere Commerce Suite Installation
- W WebSphere Commerce Suite Configuration

- W WebSphere Application Server Administration
- W Configuring the Sample Mall
- W Store Creation
- W Creating Categories and Products
- W Creating Category and Product Templates
- W Site Administration, Store Administration as well as Utilities

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

EB000/EB040 - Starting an e-commerce Site using IBM WebSphere Commerce Suite

Course Code: EB000/EB040

Duration: 20 Hours

Purpose:

This Web book/CBT provides the fundamental concepts necessary to understand and implement an e-commerce site.

Audience:

Developers, administrators, Information Technology (IT) architects, technical sales representatives, and technical support staff.

Prerequisites:

Knowledge of basic systems, network administration skills, experience in administering a World Wide Web server, and a basic understanding of relational database concepts.

Objectives:

At the end of this course, you should be able to:

- List the features, functions, components, and available resources for WebSphere Commerce Suite
- Describe the individual architectural components and their interrelationships, including various configurations for implementing WebSphere Commerce Suite

Education/Certification Quick Reference Course Descriptions

- Delineate the features, function, and interface for WebSphere Commerce Studio
- Describe the major tasks involved in planning to implement IBM WebSphere Commerce Suite
- State the major steps for installing WebSphere Commerce Suite
- Describe the major configuration tasks, including the use of the Configuration Manager tool
- Give a conceptual overview of the process of creating, publishing, and testing a store, including the use of the Store Creation Wizard and the Store Profile Editor
- Identify fundamental catalog concepts, such as the differences and relationships between categories, category lists, products, SKUs, items, item attributes, packages, bundles, and associations
- Describe how to create a catalog using Catalog Architect
- Compare the different ways products can be displayed in a store and describe how to create category and product templates using JSP and Net.Data macro technologies
- Describe the WebSphere Commerce Suite Administrator tool
- Define and describe the tools that facilitate personalization, intelligent shopping metaphors of auctions
- Describe how to set up, configure, and administer the various payment methods and options that are supported by WebSphere Commerce Suite Version 4.1

Course Contents:

- Overview of WebSphere Commerce Suite Version 4.1
- Overview of WebSphere Commerce Suite architecture
- Overview of WebSphere Commerce Suite tools
- Planning for WebSphere Commerce Suite
- Installing WebSphere Commerce Suite concepts
- Configuring WebSphere Commerce Suite concepts
- Creating and publishing a store concepts
- Creating and structuring your product catalog concepts

- Displaying products in your store concepts
- Performing site administration tasks concepts
- Performing store administration tasks concepts
- Establishing and managing electronic payment service

Course Delivery:

This course is structured as a CBT/WBT Self Study format. [Return to Map](#)

EB12/EB14 - Customizing an e-commerce Site with WebSphere Commerce Suite

Course Code: EB12/EB14

Duration: 20 Hours

Purpose:

This Web book/CBT provides the fundamental concepts necessary to customize an e-commerce site using IBM WebSphere Commerce Suite.

Audience:

System integrators and programmers who need to customize the database, macros, overridable functions, and Java Server Pages (JSP) of a working WebSphere Commerce Suite V4.1 system

Prerequisites:

You must have:

- Familiarity with IBM WebSphere Commerce Suite Version 4.1 and services provided by online malls and stores
- Familiarity with using the operating system platform for implementation and its programming tools
- An understanding of Hypertext Markup Language (HTML) 3.2 syntax, including tables and forms
- Experience in database programming using Structured Query Language (SQL), C++ and Java programming, JSPs, and WebSphere Application Server

You should also have:

- Experience using the Windows NT user interface and the Netscape Navigator V4.6.1 Web browser

- An understanding of creating content and programming for the Internet and World Wide Web environment

Objectives:

At the end of this course, you should be able to:

- Compare WebSphere Servlet Engine and Server Process architectures
- Describe the general techniques, tools, and skills required to accomplish the six ways WebSphere Commerce Suite can be customized, including the use of HTML, JavaScript, Net.Data macros, JSPs, overridable functions, WebSphere Commerce Suite commands, database customization, Application Program Interfaces (API), and middleware
- Determine what factors should be considered when customizing a WebSphere Commerce Suite implementation (shopper, product catalog, and store processes considerations)
- Describe the supported store models available in WebSphere Commerce Suite V4.1 and how they can be adapted to meet specific merchant needs
- Define the WebSphere Commerce Suite V4.1 directory structure
- State how the WebSphere Commerce Suite Store Creator, Catalog Architect, and Mass Import tools can be customized
- Describe WebSphere Commerce Suite V4.1 database communication
- List the main groups of tables in the WebSphere Commerce Suite database and how to add tables to the database
- Show how constraints are used to enforce referential integrity
- Describe how the WebSphere Commerce Suite server process works with pools, commands, tasks, overridable functions and macros
- Relate how WebSphere Commerce Suite API commands are processed and how overridable functions are processed
- Assign new overridable functions and macros to tasks

Education/Certification Quick Reference Course Descriptions

-
- Recount how the WebSphere Commerce Suite servlet engine works with servlets, Java Beans, and JSP
 - Describe how WebSphere Commerce Suite servlet commands are processed
 - Describe the supported WebSphere Commerce Suite Java Beans and how to use the supported Java Beans in JSP
 - Create custom JSP for product displays, category displays, and product advisor
 - Describe the implementation of Net.Data 6.1 within WebSphere Commerce Suite, including how Net.Data macros are executed
 - Describe the structure and syntax of a WebSphere Commerce Suite macro
 - Understand the WebSphere Commerce Suite special variables
 - Use the different variable types in WebSphere Commerce Suite macros
 - List the language environments supported by WebSphere Commerce Suite
 - Create the Open Database Connectivity (ODBC) functions for WebSphere Commerce Suite macros
 - Use Net.Data built-in functions
 - Describe the programming model of WebSphere Commerce Suite overridable functions
 - Describe WebSphere Commerce Suite classes
 - Understand coding rules for overridable functions
 - Use values passed from commands and pass values back
 - Understand how to compile overridable functions
 - Register overridable functions in the database
 - Create Net.Data macros to handle error conditions returned by overridable functions
 - Describe the basic layout and navigation elements of a site
 - Describe the WebSphere Commerce Suite commands that are used to support dynamic pages
 - Ensure data is accessed securely from site pages (for both Net.Data and JSP)
 - Choose file locations and naming conventions
 - Describe the various ways to display a catalog
 - Describe how to customize catalog navigation
 - Describe how to customize the catalog database
 - Describe how to display different catalogs for different shopper groups
 - Describe the database tables that contain registration and address book information and understand the commands for registration, logon and addresses
 - Customize the Net.Data macros used for the registration and address book processes
 - Create overridable functions and error macros to validate registration and address book data
 - Understand the data that must be captured during the shopping process
 - Describe the functions of the WebSphere Commerce Suite commands used for the shopping process and customize the tasks and Net.Data macros used for these processes
 - Describe which overridable functions to change to customize WebSphere Commerce Suite order processing and understand order status
 - Create macros to display completed orders
 - Describe the dual currency support in WebSphere Commerce Suite V4.1
 - Enable selection of a shopper preferred currency
 - Create macros which display the shopping currency and counter values
 - Perform currency conversions in overridable functions
 - Describe when it might be necessary to write a WebSphere Commerce Suite command
 - Compare the WebSphere Commerce Suite background server and scheduler daemons
 - Describe how a merchant can integrate WebSphere Commerce Suite with another system
 - Describe the legacy integration samples in WebSphere Commerce Suite Pro
 - Describe how to implement the IBM Message Queuing Series (MQSeries) bridge
- Course Contents:**
- Overview of WebSphere Commerce Suite Customization
 - WebSphere Commerce Suite Database
 - WebSphere Commerce Suite Server Architecture
 - WebSphere Commerce Suite Servlet Engine Architecture
 - Net.Data Programming
 - Net.Data Overview
 - Net.Data Variables
 - Net.Data Functions
 - Custom Functions and Data Processing
 - Creating Overridable Functions
 - Considerations for Implementing Dynamic Pages
 - Custom Shopping Models
 - Customizing Catalog Database, Navigation, and Display
 - Registration and Address Book
 - Shopping Flow
 - Payment Processing and System Integrations
 - Order Processing
 - Dual Currency Support
 - Server and System Integration
- Course Delivery:**
This course is structured as a CBT/WBT Self Study format. [Return to Map](#)
- WA00/WA01 - WebSphere Commerce Suite V5.1 Overview**

Education/Certification Quick Reference Course Descriptions

Course Code: WA00/WA01

Duration: 8 Hours

Overview:

Learn about IBM WCS, Version 5.1. Gain conceptual knowledge of features and functions of the product and be introduced to basic e-commerce terminology.

Audience:

Administrators, developers, architects, or individuals who need an understanding of the components and features of WebSphere Commerce.

Prerequisites:

You are expected to have a basic understanding of Internet and e-business technologies and terminology.

Objectives:

After completing this course, you will be able to:

- Describe WCS product offerings
- Describe components and features of product offerings
- Describe the architecture of WCS
- Describe tools available for developing stores
- Describe tools available for administering WCS sites and stores

Course Delivery:

This course is structured as a CBT/WBT Self Study format. [Return to Map](#)

WA210/WA220 - WebSphere Commerce Suite V5.1 System Administration

Course Code: WA210/WA220

Duration: 10 Hours

Overview:

Learn the fundamental concepts required to install, configure, and manage an IBM WebSphere Commerce Suite (WCS) Version 5.1 system. Perform simulated configuration and management tasks. Become familiar with the product and build confidence in maintaining a WCS V5.1 site.

Learn how to install and configure WCS V5.1 and how to use logging for problem solving. Learn how to configure a store and load catalog data from a database. Use the administrator's console and WCSV5.1 utilities. Learn how to configure payment manager, set up security options, configure for a high traffic environment, and fine tune WCS V5.1 operation.

Audience:

Individuals who install, configure, and maintain the operating system, Web server, security services and WCS V5.1 software. System administrators and webmasters of e-commerce Web sites.

Prerequisites:

You should have:

- Basic operating system and network administration skills for Windows 95 or Windows NT and the Internet Explorer V5.0 Web browser
- Experience in administering a World Wide Web (WWW) server
- Basic understanding of relational database concepts
- Experience administering WebSphere Application Server, Advanced Edition

Objectives:

After completing this course, you will be able to:

- Describe system administration tasks and tools
- Describe requirements for installation
- Install WCS V5.1 and its related software
- Configure WCS V5.1 instances in 2-tier, 3-tier, or 4-tier configurations
- Load a store from a store archive and load its catalog from supplied Extensible Markup Language (XML) load files
- Configure logging and resolve problems
- Implement caching and clean up the database
- Use the administrator console to configure access, monitor performance, and configure messaging and the rule server

- Configure security options for Lightweight Directory Access Protocol (LDAP) integration and X.509 authentication
- Configure payment manager for use with a WCS V5.1 store

Course Contents:

- WCS V5.1 system administration overview
- Installation planning for WCS V5.1
- Installing WCS V5.1
- Configuring WCS V5.1
- Using logging for problem solving in WCS V5.1
- Configuring store in WCS V5.1
- Loading catalog data in WCS V5.1
- Using the administrator's console in WCS V5.1
- Using WCS V5.1 utilities
- Configuring payment manager for WCS V5.1
- Site analysis and tuning in WCS V5.1
- Configuring security options for WCS V5.1
- Configuring high traffic environments for WCS V5.1

Course Delivery:

This course is structured as a CBT/WBT Self Study format. [Return to Map](#)

WA20 - WebSphere Commerce Suite V5.1 System Administration

Course Code: WA20

Duration: 3 Days

Overview:

Learn the fundamental concepts required to install, configure, and manage an IBM WebSphere Commerce Suite (WCS), Version 5.1 system. Perform real configuration and management tasks on the actual product in the hands-on lab. Become familiar with the product and build your confidence in maintaining a WCS V5.1 site.

Education/Certification Quick Reference Course Descriptions

Audience:

Implementors, administrators, technical support staff members, and other individuals, who are setting up or administering a basic e-commerce site using IBM WCS

Prerequisites:

You should complete:

- WebSphere Commerce Suite (WCS) V5.1 Overview Webbook
 - (WA00A) CD-ROM or
 - (WA01A) download and play

and have knowledge of basic computing systems, network administration skills, experience in administering a World Wide Web server, and a basic understanding of relational database concepts. WebSphere administration skills are required. If you do not have hands-on experience, you may attend:

- WebSphere Application Server V3.5 Administration (AD69A).

Objectives:

After completing this course, you will be able to:

- Describe system administration tasks and tools
- Describe requirements for installation
- Install WCS and its related software
- Configure WCS instances in multiple tier configurations
- Load a store from a store archive and load its catalog from supplied Extensible Markup Language (XML) load files
- Configure logging and resolve problems
- Implement caching and clean up the database
- Use the administration console to configure access, monitor performance, and configure messaging and the rule server
- Configure security options for Lightweight Directory Access Protocol (LDAP) integration and X.509 authentication
- Configure payment manager for use with a WCS store

Course Contents:

- WCS V5.1 system administration overview
- Installation planning for WCS V5.1
- Installing WCS V5.1
- Configuring WCS V5.1
- Using logging for problem solving in WCS V5.1
- Configuring stores in WCS V5.1
- Loading catalog data in WCS V5.1
- Using the administrator's console in WCS V5.1
- Using WCS V5.1 utilities
- Configuring payment manager for WCS V5.1
- Site analysis and tuning in WCS V5.1
- Configuring security options for WCS V5.1
- Configuring high traffic environment for WCS V5.1

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

OB75 - Visual Programming with VisualAge for Java

Course Code: OB75

Duration: 4.5 Days

Overview:

After completing this course, experienced Java developers will be able to develop GUI programs visually using the visual composition facility of VisualAge for Java. This course focuses on using the Integrated Development Environment (IDE), the Visual Composition Editor to develop Java Foundation Classes (JFC), and Abstract Window Toolkit (AWT) applications and applets. The course also covers the basics of the JavaBeans component model and the use of the Select Bean as a way to prototype applications that access data from a relational database. Hands-on labs are used throughout the course.

Audience:

This course is a lab intensive offering for experienced Java developers that want to use the visual composition facilities of the IBM VisualAge for Java product to develop GUI applications and applets.

Prerequisites:

Before attending this course, students should have:

W A strong working knowledge of the Java language and the basic packages of JDK 1.1.

W A working knowledge of the Internet and web technologies.

W Previous experience with Object Oriented Analysis and Design.

The Java and library skills can be developed by taking "Object Oriented Programming with Java" (OB72Y or OB79Y), followed by several months of experience with Java, or "Java Programming" (OB73Y or OB77Y), followed by programming experience with Java.

The Object Oriented analysis and design skills can be developed by taking "Practicing Object-Oriented Analysis and Design" (OB15Y), followed by several months of experience.

Objectives:

After completing this course, experienced Java developers will be able to:

W Develop Java Foundation Classes (JFC) applications visually using the visual composition facility of VisualAge for Java.

W Use the Integrated Development Environment (IDE) to build Java classes.

W Learn the basics of the JavaBeans component model.

W Use the BeanInfo editor to develop JavaBeans.

W Use the Select Bean as a way to prototype applications that access data from a relational database.

Education/Certification Quick Reference Course Descriptions

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

EBSE- e-business Sales Essentials

Course Code: EBSE

Duration: 8 Hours

Overview:

PartnerWorld and IBM e-business Sales Enablement are pleased to announce the availability of e-business Sales Essentials for Business Partners! This modular offering is now available online from IBM Web Lecture Services and has been designed exclusively for IBM Business Partners. This powerful new offering features presentation slides, scripts and delivery by subject matter experts in e-business sales.

e-business Sales Essentials (eBSE) for Business Partners is the first of several new offerings being delivered to Business Partners to address your requirements for New Skills in New Markets for New Business! e-business Sales Essentials is recommended as the first step for building e-business solution skills, and is recommended in the introductory education in preparation for the IBM Certified for e-business - Solution Advisor exam.

Course Contents:

e-business Sales Essentials contains nine (9) modules addressing:

- e-business market overview and the e-business cycle
- IBM's e-business transformation
- Selling with the application framework for e-business
- Selling e-business server offerings
- Selling e-commerce, Customer Relationship Management (CRM), Supply Chain Management (SCM) and Business Intelligence (BI) solutions
- IBM Global Finance support for e-business solutions

Course Delivery:

This course is structured as a Web Based Self Study format. [Return to Map](#)

SSM4S - Signature Selling Methodology Workshop

Course Code: SSM4S

Duration: 2.0 Days

Audience:

Business partners

Prerequisites:

Prior sales experience

Objectives:

Upon satisfactorily completing this course, you should be able to:

- W** Align your selling activities with customer's buying process
- W** Identify the most powerful people in the customer organisation who can help you win
- W** Identify opportunities and link IBM solutions to customer business initiatives
- W** Qualify opportunities quickly and effectively
- W** Fill the pipeline with opportunities that are verified at each step in the sell cycle
- W** Influence your customer's buying vision to focus on the unique strengths of IBM
- W** Develop a winning competitive strategy for your opportunities
- W** Create value for your customer through your interactions

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

B3005 - e-business: Selling Workshop

Course Code: B3005

Duration: 2.0 Days

Overview:

This workshop course builds on the consultative selling techniques learned in the Solution Selling Methodology Workshop, and focuses on applying these techniques in an e-business scenario. This workshop class uses a case study approach with extensive student participation, interaction, exercises, and role playing. Participants learn powerful techniques to identify opportunities, stimulate interest, qualify and create buying visions around e-business solutions, and to effectively manage the sales process.

Audience:

- W** AIM Sales Specialists
- W** SDM Sales
- W** Software Account Managers
- W** e-business Sales Specialists
- W** Other software sales specialists

Prerequisites:

- W** Completed the e-business: Sales Essentials Course
- W** Completed Signature Selling Methodology Workshop

Objectives:

After attending the course, the student will be able to:

- W** Identify Application Framework for e-business opportunities for a specific account or in an assigned territory
- W** Create Application Framework for e-business reference stories that could be used for value propositions, stimulating interest and identifying opportunities
- W** Create and deliver value propositions that support the use of IBM's Application Framework for e-business and associated offerings

Education/Certification Quick Reference Course Descriptions

W Identify customer-critical business issues that could be addressed by IBM's Application Framework for e-business and the associated offerings

W Stimulate and generate interest for IBM's Application Framework for e-business and the associated offerings

W Create a desire for a solution that would address the customer's critical business issues based on the strengths of IBM's Application Framework for e-business and associated offerings

W Negotiate access to power

W Assess Application Framework for e-business competitive opportunities and select the appropriate sales strategy

W Change a customer's biased view of a competitive solution (for example, Microsoft DNA) to that of IBM's Application Framework for e-business using visioning techniques and differentiator lists

W Diagnose a customer's business problem that would lead to the acceptance of IBM's Application Framework for e-business and associated offerings

W Achieve qualification at every step of an Application Framework for e-business sales cycle

W Create and deliver value justifications that support the use of IBM's Application Framework for e-business and associated offerings

W Resolve concerns in order to secure customer commitment to IBM's Application Framework for e-business and associated offerings.

Course Delivery:

This course is structured in an Instructor-led, Classroom format. [Return to Map](#)

EB90 - e-business Fundamentals

Course Code: EB90

Duration: 12 Hours

Overview:

This self-study Web book is designed to give professionals in the Information Technology marketplace the foundation to understand the underlying technologies, building blocks, and products that are needed to build e-business solutions including customer relationship management, e-commerce, enterprise application integration, supply chain management, and business intelligence.

Audience

This course is appropriate for individuals of any background.

Prerequisites

A general understanding of computers and business.

Objectives

After completing this course, you should be able to do the following:

- List the main e-business solutions and their characteristics
- Enumerate the main technologies underlying e-business solutions
- Identify the main building blocks in designing e-business solutions
- Show the flow of information through the Internet
- Describe the significance of the technology for e-business for TCP/IP technologies
- Describe the significance of the technology for e-business for HTML technologies
- Describe the significance of the technology for e-business for Java technologies
- Describe the significance of the technology for e-business for XML technologies
- Compare options for connecting to the Internet and how they affect business decisions
- List and define major e-business applications

- For major e-business solutions, describe what the problem is trying to address
- For major e-business solutions, identify which technologies and building blocks are key in addressing the solution
- For major e-business solutions, enumerate the components of a sample solution
- Enumerate the topic

Contents

- What is e-business?
- e-business Technologies
- e-business Building Blocks
- Customer Relationship Management (CRM)
- e-commerce solutions
- Enterprise Application Integration
- Supply Chain Management
- Business Intelligence

Course Delivery:

This course is structured as a Web Based Self Study format. [Return to Map](#)

IN74 - e-business Fundamentals

Course Code: IN74

Duration: 2 Days

Overview:

This course covers at an overview level the practical application of Internet technologies to the development of e-business applications.

Audience

This course is appropriate for individuals of any background.

Prerequisites

A general understanding of computers and business.

Education/Certification Quick Reference Course Descriptions

Objectives

After completing this course, you should be able to do the following:

- Identify the components of the Internet
- Differentiate between Internets, intranets, extranets, and the Internet
- Show the flow of information through the Internet
- Analyze a URL and understand Internet addressing and naming schemes
- Compare options for connecting to the Internet and how they affect businesses
- Select an Internet business-interaction model: HTML forms, CGI, or Java
- Transform a physical business into an e-business
- Create, advertise, and promote an e-business
- Evaluate the challenges and benefits of e-businesses
- Identify the key components of a firewall
- Show how encryption is used to secure data on the Internet

Contents

- The three-tier structure of e-business
- The Internet and its components: World Wide Web, e-mail, ftp, usenet, and telnet
- Networks: Internets, intranets, extranets, the Internet
- Internet communications: TCP/IP
- Internet naming and addressing: URLs, IP addresses, domains, DNS
- Internet connectivity: modem, T1, ISDN, cable, ADSL, satellite
- e-business interaction models: HTML forms, CGI, Java
- e-business fundamentals: advertising, promotion, legal concerns
- e-business challenges and benefits
- Design your own e-business
- Security: firewalls and encryption

Course Delivery:

This course is structured in an Instructor-led, Classroom format. [Return to Map](#)

B3106 - Application Framework for e-business: Technology Workshop

Course Code: B3106

Duration: 5.0 Days

Overview:

This five-day workshop develops product and technology skills across the entire range of Framework middleware and tools. The technology workshop covers the technical skills needed to integrate Web technologies and IBM products in the development of Framework based solutions. An e-business scenario is used through out the week to put all information in context. Students will gain hand's on experience with most of the technologies and products that make up the Framework in extensive labs that complement the lectures.

Audience:

This course is open to IBMers, Lotus and Tivoli employees, and IBM Business Partners only. The audience for this workshop is software technical sales and services professionals who have been identified by their management to lead and/or implement end-to-end Application Framework based solutions. The target audience includes:

W Technical Sales

- X A&IM Field Technical Sales Specialist (FTSS)
- X SDM Technical professionals
- X Software I/T Architect
- X Client I/T Architect
- X Proof of Concept Specialist
- X Advanced Technical Support (ATS)
- X Techline

W Services

- X I/T Architect
- X I/T Specialist

Prerequisites:

No prerequisites but recommended preparation consist of the following:

W Application Framework for e-business: An Introduction Self-Study (B3000 available in Global Campus)

W A&IM Education Track at the e-business University
Required Knowledge:

W Skill level 3 on Windows NT, Windows 95, Windows 98

W Ability to use WordPad or Notepad on Windows

W Basic programming skills

Objectives:

By the conclusion of this course you should be able to:

W Describe the Framework, why and how to use it in designing Client Solutions

W Explain how the e-business software portfolio maps to the Framework

W Explain how to integrate technologies to create Framework solutions

W Describe hands-on experience with IBM software products that map into the Framework

W Use WebSphere Development Studio, NetObjects Fusion and VisualAge for Java to create a web site, Applets, JavaBeans and Servlets

W Use WebSphere Application Server to register and protect resources

W Use JDBC and Net.Data to access a DB2 Database

W Configure MQ Series message queues and complete a Java Applet linking MQ to a CICS system

Education/Certification Quick Reference Course Descriptions

- W Use various host access mechanisms such as CICS TerminalServlet, CICS Client, and CICS Transaction Gateway

Course Contents:

- W Introduction to the Framework
- W Introduction to Business Scenario
- W Java Overview (Applications, Applets, Servlets, JavaBeans, Enterprise JavaBeans, Components)
- W Servers (Apache, HTTP Server, WebSphere Application Server(WAS))
- W Application Development Tools (WebSphere Development Studio, VisualAge for Java, NetObjects Fusion)
- W Web Server Interaction
 - X Client Driven User Interface (Applets, Cascading Style Sheets, XML)
 - X Server Driven User Interface and WAS APIs (Servlets, Java Server Pages)
- W Underlying Web Technology
- W Introduction to Connectors
- W RDB Connectivity (Net.Data, JDBC)
- W Message Oriented Middleware (MQ Series)
- W Transaction Monitoring (TXSeries)
- W Distributed Objects (RMI, CORBA)
- W Enterprise Integration for Domino (DECS, LEI, LSX, ...)
- W E-Commerce
- W Web Application Infrastructure
 - X Security
 - X Directory
 - X Performance
- W Designing Integrated Web Applications

Course Delivery:

This course is structured in an Instructor-led, Classroom format. [Return to Map](#)

P3206 - e-business: Designing Integrated Solutions Workshop

Course Code: P3206

Duration: 4.5 Days

Overview:

Develop the architecture and design skills required to apply the IBM Framework for e-business to customer environments, choose the specific products, understand the trade-offs between various solutions and develop a reasonable design for the customer.

IMPORTANT NOTICE:

Prior to enrolling in this course, please review this series of self assessment questions. If you are able to respond appropriately to these questions, then you have the background and experience recommended for participation in this course. If you are unable to respond appropriately, please do not enroll in this course, as it is not designed for you.

Self Assessment:

- Describe the differences between Web Self Service (including Web Marketing, Customer Relationship Management, Online Sales) and Business Integration (including Enterprise
- Application Integration, Supply Chain Management, and Workflow Management) e-business solutions.
- How does the IBM Framework for e-business support building Web self-service and business integration e-business solutions?
- Describe the differences between Java applets, servlets, and Server Pages. How would these be used in developing e-business solutions?
- Describe three key products in the IBM Framework for e-business. How would these be used in developing e-business solutions?

- Describe the differences between JavaBeans and Enterprise JavaBeans (EJB) in the context of building e-business solutions. How are EJBs supported in the IBM Framework for e-business?
- Describe transactions and the Atomicity, Consistency, Isolation, and Durability (ACID) properties in the context of e-business solutions. How are transactions supported by products in the IBM Framework for e-business?

Who Should Take This Course:

This course is open to e-business application architects, designers, and developers.

Prerequisites:

There are two audiences for this course: one based on understanding the why of technology choices and products placement and one based on understanding the details of how the technologies and products work.

If you have a why requirement, you should have a general understanding of the e-business marketplace, conceptual knowledge of browsers, Hypertext Markup Language (HTML), Hypertext Transfer Protocol (HTTP), and legacy systems.

If you have a how requirement, you should complete: e-business Technology Workshop (B3106) or have equivalent experience and knowledge with the following technologies and products used within the IBM Framework for e-business:

- Web marketing:
 - HTTP, HTML, Java, Web servers
 - WebSphere Studio and IBM HTTP servers
- Customer relationship management with data access:
 - Web application servers, client versus server driven interactions, Extensible Markup Language (XML), performance issues
 - IBM Web application servers (WebSphere Standard, Domino), IBM Performance Pack
- Online sales:

Education/Certification Quick Reference Course Descriptions

- Enable an online shopping process with secure payments, product catalogs, orders and customer management
- IBM WebSphere Commerce Suite and IBM Payment Manager
- Customer relationship management with transactions:
 - EJB / Common Object Request Broker Architecture (CORBA) and transaction processors and monitors
 - WebSphere Advanced Edition, WebSphere Enterprise Edition (TX Series, ComponentBroker)
- Supplier integration:
 - Business Integration technologies (enterprise application integration, Business Integration with XML)
 - IBM Message Queuing Series (MQSeries), MQSeries Integrator (MQSI), Domino (Agents)
- Supplier integration and workflow:
 - Workflow technology
 - MQSeries workflow, Domino (agents and workflow)

You should also have experience in how to architect a solution.

What You Are Taught:

By the end of this course, you will have or be able to:

- Describe the underlying technologies for building e-business solutions
- Describe the products and components in the IBM Framework for e-business and their use in building e-business solutions
- Describe competing products and components
- Use IBM Intellectual Capital in designing e-business solutions:
 - Process for designing solutions
 - Patterns that describe reusable solutions
 - Best practices in designing solutions
- Define e-business requirements by understanding business needs

- Design a solution using IBM Framework for e-business to address e-business requirements:
 - Develop architectural alternatives with selected products/components
 - Choose an alternative based on pros and cons and trade-offs
- Recommend a solution

Topics Include:

- Communicating a design
- Designing e-business solutions overview
- Web Marketing Solution Space
- Security review
- Customer relationship management
- Customer relationship management with transactions support
- Supplier integration
- Enterprise application integration
- Business Intelligence (BI) and Knowledge Management (KM)
- Online sales

Course Delivery:

This course is structured in an Instructor-led, Classroom format. [Return to Map](#)

CF03 - DB2 Family Fundamentals

Course Code: CF03

Duration: 2.0 Days

Overview:

This course provides you with information about the functions of Database 2 (DB2), IBM's relational database which may be installed under a variety of operating systems on many hardware platforms. DB2 runs under the MVS, VM, OS/2 and Windows NT operating systems to name a few.

The course includes discussion of how the DB2 products provide services. The focus is on the services

DB2 provides and how we will work with DB2, not on its internal workings.

Audience:

Anyone who needs introductory knowledge of DB2 and persons preparing for advanced and specialised DB2 education.

Objectives:

After completing this course, you should be able to:

- W** List and describe the major components of IBM's relational databases - most components apply to all DB2s but technical details of this course focus on DB2 UDB for OS/390 and DB2 UDB for UNIX, Windows, OS/2
- W** Explain the characteristics of a DB2 table
- W** Identify the characteristics of various DB2 column data types
- W** Comprehend the processing instructions given to DB2 via simple SQL statements
- W** List and describe several ways to build (write) and execute SQL statements
- W** List and describe steps needed to embed SQL statements in an application program
- W** Explain some of the functions performed by, and responsibilities of, Database and System Administrators
- W** Understand the basic concepts of data modelling
- W** Describe the concepts involved with distributed data and some implementation considerations
- W** Describe data warehousing and some of the products involved
- W** Establish a base for more specialised DB2 education

Course Contents:

- W** DB2 Overview
- W** Hats in DB2
- W** DB2 From an End-User's perspective

Education/Certification Quick Reference Course Descriptions

- W DB2 From a Programmer's perspective
- W DB2 From an Administrator's perspective
- W Introduction to Data Modeling
- W Where Do I Go Next?

Course Delivery:

This course is structured in a lecture only format.
[Return to Map](#)

CT03 - DB2 Family Fundamentals - (CD-ROM)

Course Code: CT03

Duration: 8 Hours

Overview:

Your entire Information Technology (IT) organization will benefit from this introduction to DB2. Learn about the functions and services of DB2, IBM's relational database. The focus is DB2 for OS/390, DB2 Universal Database, and DB2 for AS/400. This self-paced, interactive training is a collection of independent modules, which you can select, depending on your job responsibility. Training for DB2 running under the MVS, VM, OS/2, Windows NT, and other operating systems is provided.

Audience:

Anyone who needs introductory knowledge of DB2 and persons preparing for advanced and specialised DB2 education.

Objectives:

After completing this course, you should be able to:

- List and describe the major components of IBM's relational databases
- Explain characteristics of a DB2 table
- Identify characteristics of various DB2 column data types
- Comprehend processing instructions via simple Structured Query Language (SQL) statements
- Describe several ways to build and execute SQL statements

- Detail steps to imbed SQL statements in an application program
- Explain functions performed by and responsibilities of database and system administrators
- Understand the basic concepts of data modeling
- Describe the concepts involved with distributed data and implementation considerations
- Describe warehousing and products involved

Course Contents:

- Overview
 - File systems
 - Database Management System (DBMS) versus Relational Database Management System (RDBMS)
 - SQL
 - IBM platforms
 - Table characteristics
 - Hats
- DB2 for the end user
 - Writing SQL
 - Ways to run SQL
- DB2 for programmers
 - Creating a test environment
 - Traditional programming role
 - Preparing a program for execution
 - Static versus dynamic SQL
 - Application generators
- DB2 for administrators
 - System administrator
 - Database Administrator (DBA)
 - Indexes
 - Views
 - DROP
 - Locking
 - Utilities
 - Other DBA tasks

- Security
- Data modeling and database design
 - Business modeling
 - Data modeling
 - Table and column names
 - Data types
 - NULLs
 - Related data
 - Association table
 - Referential integrity
 - Triggers
 - Normalization
- Distributed data considerations
 - Planning for distributed data
 - Types of distributed scenarios
 - Security considerations
 - Management approach
 - Current technology trends
 - Distributed terminology
 - Data warehouse
 - Data replication
 - Data mining
 - Online Analytical Processing (OLAP)

Course Delivery:

This course is delivered by CD-ROM in a self-study format. [Return to Map](#)

CF10 - DB2 Universal Database Programming Fundamentals

Course Code: CF10

Duration: 2.0 Days

Overview:

This course enables you to acquire the skills necessary to produce application programs that manipulate DB2 databases in a UNIX, Windows NT, Windows 95, or

Education/Certification Quick Reference Course Descriptions

OS/2 environment. Emphasis is on embedding Structured Query Language (SQL) statements and preparing programs for execution.

The products addressed by this course are the DB2 UDB for UNIX, Windows and OS/2 V6.1.

Audience:

Programmers responsible for producing application programs that manipulate DB2 databases and execute in the UNIX, Windows, and/or OS/2 environments.

This course addresses use of static embedded SQL. If your programming needs involve the use of Call Level Interface (CLI), or ODBC, you should attend the DB2 Call Level Interface Programming course. If your programming needs include the use of stored procedures, user defined functions (UDFs), application programming interfaces (APIs), or dynamic SQL, you should attend DB2 UDB Advanced Programming course in addition to this course.

Programmers with static SQL coding experience on another platform, such as DB2 for OS/390, should NOT attend this course, but may be interested in attending DB2 UDB Advanced Programming.

Prerequisites:

Before taking this course, you should be familiar with SQL. You should also be familiar with the C programming language. The lab will provide a C skeleton program that will be completed by the student. These skills can be acquired by attending:

W DB2 Fundamentals

W SQL Workshop

W Introduction to C Programming

Equivalent experience may be substituted for these courses.

Objectives:

After completing this course, you should be able to:

W Connect to local and remote DB2 databases

W Incorporate static SQL statements in an application program

W Prepare programs for execution

W Discuss relational concepts

W Describe database locking from an application programming perspective

W Discuss program and DB2 options relative to performance of static SQL

Course Contents:

W DB2 Workstation Overview for Programmers

W Program Structure, Program Preparation as well as Performance Considerations

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

CF11 - DB2 Universal Database Advanced Programming

Course Code: CF11

Duration: 3.0 Days

Overview:

This course teaches you how to take advantage of advanced programming techniques to access DB2 databases in the workstation environment. These techniques can be utilised in addition to standard embedded SQL calls that are addressed in the prerequisite offering, DB2 UDB Programming Fundamentals.

The products addressed by this course are the DB2 UDB for UNIX, Windows and OS/2 V6.1.

Audience:

Application programmers and other technical personnel who are involved in designing and implementing applications that access DB2 data from a workstation environment.

Prerequisites:

Before taking this course, you should be able to:

W Code embedded, static SQL applications

W Discuss relational database concepts

W Use basic C language syntax components

These skills can be developed by taking

W Introduction to C Programming

W DB2 UDB Programming Fundamentals

Equivalent experience may be substituted for these courses.

Application programming experience with other relational database systems, such as DB2 MVS, DB2/VSE and VM, and DB2/400, would be appropriate for meeting the DB2 prerequisites.

Objectives:

After completing this course, you should be able to:

W Use Object-Relational capabilities of DB2 UDB such as LOB manipulation, User-Defined Functions, and User Defined Distinct Types

W Code dynamic SQL applications

W Code stored procedures and call such procedures

W Use product defined Application Programming Interfaces (APIs)

W Identify factors that influence application performance of alternatives to static SQL

Course Contents:

W Introduction and Static Coding Review

W Dynamic SQL Programming, and Stored Procedures

W Introduction to Call Level Interface, and Object-Relational Capabilities

W Application Programming Interfaces (APIs)

W Performance Considerations for Alternatives to Static SQL

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

Education/Certification Quick Reference Course Descriptions

CT12 - DB2 SQL Workshop - (CDROM)

Course Code: CT12

Duration: 8 Hours

Overview:

Learn to use Structured Query Language (SQL) including Data Manipulation Language (DML), Data Definition Language (DDL), and Data Control Language (DCL). Focus on the flexibility and functionality of the SELECT statement. This course is a collection of interactive and independent modules in order to meet the needs of your entire Information Technology (IT) staff.

Optional lab exercises can be installed on your DB2 system to provide you up to six hours of additional programming practice. Frequently Asked Questions (FAQs) have also been included to provide technical answers to your SQL questions while you perform these exercises.

Audience:

DB2 end users, programmers, operators, database administrators, and system Administrators.

Prerequisites:

W No database skills are required

Objectives:

After completing this course, you should be able to:

- Write basic SQL statements to:
 - Use DML: SELECT, INSERT, UPDATE, and DELETE statements
 - Use DDL: CREATE, ALTER, and DROP statements
 - Use DCL: GRANT and REVOKE

Course Contents:

- Simple SQL queries
- Column functions and grouping
- Scalar functions and CASE expressions
- Retrieving data from multiple tables
- Union

- Using subqueries
- Maintaining data

Course Delivery:

This course is delivered in a Self Study, CBT format.

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CF12 - DB2 SQL Workshop

Course Code: CF12

Duration: 2.0 Days

Overview:

This course provides an introduction to the SQL language and applies to the entire DB2 Family. It is appropriate for customers working in an OS/390, VM/VSE, AIX, Windows, or OS/2 environment.

Audience:

Everyone needing to perform SQL queries in practice, for example, end-users, programmers, application designers, database administrators, and system administrators who do not yet have knowledge of the SQL Data Manipulation Language (DML).

Prerequisites:

- W** Basic computer literacy
- W** Basic editing skills
- W** No database skills are required

Objectives:

After completing this course, you should be able to:
Write basic SQL statements

- W** Use (write) SELECT, INSERT, UPDATE, and DELETE statements
- W** Use simple CREATE TABLE and CREATE VIEW statements

Course Contents:

This course covers the following major topics:

- W** Structure and Elements of SQL
- W** SQL Queries

- W** Retrieving Data from Multiple Tables
- W** Scalar Functions and Arithmetic
- W** Column Functions and Grouping
- W** Combination of Multiple Result Tables
- W** Using Subqueries
- W** Maintaining Data

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

CT13 - DB2 Advanced SQL Workshop - (CDROM)

Course Code: CT13

Duration: 4 Hours

Overview:

Learn how to code simple data definitions and complex SELECT statements, advanced subqueries, and nested table expressions. Optional lab exercises provide an additional four hours of programming practice. Frequently Asked Questions (FAQs) are available in one location for easy reference. This self-paced, interactive training is a collection of independent modules, which you can select, based on your job responsibility.

Audience:

DB2 end users, programmers, operators, database administrators, and system Administrators.

Prerequisites:

- You should complete:
 - DB2 SQL Workshop (CF12) or
 - DB2 SQL Workshop (CD-ROM) (CT12)

Objectives:

After completing this course, you should be able to:

- Write complex Structured Query Language (SQL) statements to implement referential integrity, inner and

Education/Certification Quick Reference Course Descriptions

outer joins, advanced subqueries, and nested table expressions

- Identify index use and performance issues

Course Contents:

- Referential integrity
- Inner and outer joins
- Advanced subquery topics
- Nested table expressions
- Indexes and performance

Course Delivery:

This course is delivered in a Self Study, CBT format.

[Return to Map](#)

CT28 - DB2 UDB for Experienced Relational DBAs (CD-ROM)

Course Code: CT28

Duration: 8 Hours

Overview:

Experienced Database Administrators (DBA) from other relational database backgrounds or other platforms can take this fast path to learn how to administer an IBM DB2 Universal Database (UDB). Learn the skills needed for IBM Certification Test 513 - DB2 UDB V7.1 Database Administration or IBM Certification Test 510 - DB2 UDB V6.1 Database Administration

Audience:

Skilled relational DBAs on other relational databases or platforms who are responsible for implementing and maintaining an IBM DB2 Universal Database.

Prerequisites:

You should be able to:

- Perform basic database administration tasks on a relational database system
- Use basic Operating System (OS) functions, such as:
 - Utilities
 - File permissions

- Hierarchical file system
- Commands
- Editor
- State the functions of the Structured Query Language (SQL) and be able to construct Data Definition Language (DDL), Data Manipulation Language (DML), and authorization statements
- Discuss basic relational database concepts, such as:
 - Locking
 - Recovery and security
 - Objects, such as tables, indexes, view, and joins

Objectives:

After completing this course, you should be able to:

- Describe the components of DB2 UDB
- Implement DB2 UDB security
- Perform basic DB2 UDB administration using commands or the Graphical User Interface (GUI)
- Perform the tasks necessary to support a basic recovery strategy
- Describe the application development process with respect to DB2 considerations

Course Contents:

- Overview of DB2 UDB
- Introduction to DB2 UDB certification
- Getting Started with DB2 UDB GUIs
- Creating databases
- Creating objects
- Moving Data
- Recovery
- Monitoring and problem determination
- Concurrency
- Application alternatives
- Application performance
- Security

Course Delivery:

This course is delivered in a Self Study, CBT format.

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CF20 - DB2 Universal Database Administration Workshop for Linux

Course Code: CF20

Duration: 4.0 Days

Overview:

This course teaches you how to perform basic database administration tasks using IBM DB2 Universal Database (UDB) for Linux. These tasks include creating and populating databases and implementing a logical design to support recovery requirements.

Audience:

Database Administrators and other technical personnel who are involved in planning, implementing, and maintaining DB2 UDB for UNIX databases.

Prerequisites:

Before taking this course you should be able to:

- W** Use basic UNIX functions such as utilities, file permissions hierarchical file system, commands, and the vi editor
- W** State the functions of the Structured Query Language (SQL) and be able to construct DDL, DML, and authorisation statements
- W** Discuss basic relational database concepts and objects such as tables, indexes, views, and joins These skill can be developed by taking
- W** Linux Basics
- W** SQL Workshop
- W** DB2 Family Fundamentals

Objectives:

After completing this course, you should be able to:

Education/Certification Quick Reference Course Descriptions

- W Administer a DB2 UDB database system using commands and GUI tools
- W Implement DB2 security
- W Perform basic administration of a DB2 database system
- W Manage System Managed Storage (SMS) and Database Managed Storage (DMS) databases and apply data placement principles
- W Implement a given logical database design using DB2 UDB to support integrity and concurrency requirements
- W List and describe the components of DB2 Universal Database
- W Define a DB2 UDB recovery strategy and perform the tasks necessary to support the strategy
- W Describe the application development process with respect to DB2 UDB considerations

Course Contents:

- W Overview of DB2 Universal Database
- W Getting Started with DB2 UDB GUIs
- W Creating Databases and Creating Objects
- W Moving Data
- W Recovery as well as Monitoring/Problem Determination
- W Concurrency
- W Application Alternatives and Application Performance
- W Security

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

CF21 - DB2 Universal Database Administration Workshop for UNIX

Course Code: CF21

Duration: 4.0 Days

Overview:

This course teaches you how to perform basic database administration tasks using IBM DB2 Universal Database. These tasks include creating and populating databases and implementing a logical design to support recovery requirements.

Audience:

Database Administrators and other technical personnel who are involved in planning, implementing, and maintaining DB2 databases.

Prerequisites:

Before taking this course you should be able to:

- W Use basic operating system functions such as utilities, file permissions, hierarchical file system, commands, and editor
- W State the functions of the Structured Query Language (SQL) and be able to construct DDL, DML, and authorisation statements
- W Discuss basic relational database concepts and objects such as tables, indexes, views, and joins
These skill can be developed by taking
- W OS Training
 - X AIX/6000 for Users or AIX Version 4 Basics
 - X OS/2 for Users
 - X Administering Microsoft Windows NT 4.0
- W SQL Workshop
- W DB2 Universal Database Fundamentals

Objectives:

After completing this course, you should be able to:

- W List and describe the components of DB2 Universal Database
- W Implement DB2 security

- W Perform basic administration of a DB2 database system
- W Define a basic DB2 recovery strategy and perform the tasks necessary to support the strategy

Course Contents:

- W Overview of DB2 Universal Database
- W Getting Started with DB2 UDB GUIs
- W Creating Databases
- W Creating Objects
- W Moving Data
- W Recovery
- W Monitoring/Problem Determination
- W Concurrency
- W Application Alternatives
- W Application Performance

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

CF23 - DB2 Universal Database Administration Workshop for NT

Course Code: CF23

Duration: 4.0 Days

Overview:

This course teaches you how to perform basic database administration tasks using IBM DB2 Universal Database. These tasks include creating and populating databases and implementing a logical design to support recovery requirements.

Audience:

Database Administrators and other technical personnel who are involved in planning, implementing, and maintaining DB2 databases.

Education/Certification Quick Reference Course Descriptions

Prerequisites:

Before taking this course you should be able to:

W Use basic operating system functions such as utilities, file permissions, hierarchical file system, commands, and editor

W State the functions of the Structured Query Language (SQL) and be able to construct DDL, DML, and authorisation statements

W Discuss basic relational database concepts and objects such as tables, indexes, views, and joins
These skill can be developed by taking

W OS Training

X AIX/6000 for Users or AIX Version 4 Basics

X OS/2 for Users

X Administering Microsoft Windows NT 4.0

W SQL Workshop

W DB2 Universal Database Fundamentals

Objectives:

After completing this course, you should be able to:

W List and describe the components of DB2 Universal Database

W Implement DB2 security

W Perform basic administration of a DB2 database system

W Define a basic DB2 recovery strategy and perform the tasks necessary to support the strategy

Course Contents:

W Overview of DB2 Universal Database

W Getting Started with DB2 UDB GUIs

W Creating Databases

W Creating Objects

W Moving Data

W Recovery

W Monitoring/Problem Determination

W Concurrency

W Application Alternatives

W Application Performance

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

DW11 - Building the Data Warehouse

Course Code: DW11

Duration: 4.5 Days

Overview:

This course teaches students practical methods and techniques for designing and constructing a data warehouse. Students will learn how to apply the techniques in the context of an incremental data warehouse development process which is suitable for constructing a data warehouse from a departmental perspective. In addition, students will also learn how this process can further be extended for the construction of consistent, corporate-wide data warehouses. As such, the course is suitable for students who wish to learn how to construct a data mart as well as a corporate-wide, integrated data warehouse.

During the course, students will apply the techniques they learn doing several exercises which are part of a case study which is consistently developed throughout the course. This approach greatly enhances the practical value of the course, by allowing students to apply the acquired knowledge in practice, under the guidance of the instructor.

Audience:

This course is designed for students who have a reasonable knowledge of and some experience with data modeling and with database design and construction techniques in general:

W data modelers and database designers

W database administrators and data architects

W data warehouse project leaders with a technical interest in the matter

W all other technical professionals with an interest in designing and constructing a data warehouse environment

Prerequisites:

The students should be familiar with relational database design and with relational database management systems in general. Being familiar with entity-relationship modeling as well as with DB2 on any platform will be helpful, but both are not required.

Objectives:

Upon successful completion of this course, the students will:

W have a thorough understanding of what a data warehouse is and how it can be enabled,

W be able to apply data warehouse enablement techniques in practice, in projects of non-trivial scope.

Course Contents:

W An Introduction to Data Warehousing and Data Warehouse Environment Architecture

W Basic principles of OLAP and Multi-Dimensional Data Modeling

W Data Warehouse Modeling and Design

W Using the Data Warehouse - A Perspective on Decision Support as well as Applications

W Design and Construction of the Data Warehouse Populating as well as Subsystem

Course Delivery:

This course is structured in a lecture/lab format.

The hands-on sessions form a vital, integral part of the course. [Return to Map](#)

FN-611 -Relational Database Design

Course Code: FN-611

Duration: 2 Days

Overview:

This course is an ideal introduction to relational database concepts and terminology. Through a variety of exercises, learn how to model a business enterprise using the entity-relationship approach to relational database design. Learn data normalization techniques. Gain hands-on experience creating a database and tables using the Data Definition Language portion of Structured Query Language.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

W No database skills are required

Objectives:

After completing this course, you should be able to:

- Describe relational technology and its advantages
- Discuss relational database design concepts and terminology
- Construct entity-relationship diagrams to model a business enterprise
- Apply the rules of normalization to a database or database model
- Use SQL to create simple databases, tables, and data integrity constraints
- Use SQL to perform basic INSERT and SELECT operations

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

FN-613 - Structured Query Language

Course Code: FN-613

Duration: 3 Days

Overview:

This course covers the Data Manipulation Language (DML) portion of Structured Query Language. Learn to create SELECT, INSERT, UPDATE, DELETE, LOAD, and UNLOAD statements, simple and complex joins, and subqueries.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

FN-611 Relational Database Design or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Use SQL Data Manipulation Statements (DML) to query and modify data in an Informix database
- Write simple SELECT statements including joins, subqueries, temporary tables, and unions
- Write complex SELECT statements including outer joins, self-joins, and correlated subqueries
- Add and modify data using the INSERT, UPDATE and DELETE statements
- Use LOAD and UNLOAD for bulk data operations

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

L1-786 - Informix Red Brick Decision Server Business Queries

Course Code: L1-786

Duration: 2 Days

Overview:

This course shows how to write typical business queries by using both standard SQL-92 syntax and RSQL extensions to

SQL. Students learn how to write inner and outer joins, including joins expressed in the FROM clause, and how to create and call macros within queries. RSQL display functions, CASE expressions, UNION queries, and subqueries are all covered in detail, demonstrating different ways to express questions that involve calculations and comparisons. Students complete extensive hands-on exercises throughout the course, using raw SQL to compose queries.

Audience:

End-users, analysts

Prerequisites:

FN-613 Structured Query Language
L1-855 Data Warehouse Design or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Express business questions as SQL queries
- Write efficient inner and outer join queries
- Use RSQL display functions to express questions that require sequential calculations
- Express questions that ask for comparisons by using subqueries, CASE expressions, and query expressions in the FROM clause
- Generalize queries by using RSQL macros
- Use SQL-92 syntax to write complex queries

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

FN-757 - Advanced Structured Query Language

Course Code: FN-757

Duration: 2 Days

Overview:

This course focuses on advanced SQL querying using complex outer joins, correlated subqueries, and other advanced SQL concepts. Learn how to use optimizer directives available in Informix Dynamic Server. Learn the

Education/Certification Quick Reference Course Descriptions

effects of transaction logging and SQL transactions. Develop an SQL code review checklist.

Audience:

Application developers, database and systems administrators system analysts, project leaders, technical support personnel

Prerequisites:

- FN-611 Relational Database Design or equivalent knowledge
- FN-613 IBM Informix Structured Query Language or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Interpret the query plan selected by the optimizer for a specified query
- Use optimizer directives to influence the optimizer query plan
- Force an index scan or sequential scan of table
- Specify join methods and join order for tables in a query
- Use explicit SQL transaction statements
- Lock various database objects
- Handle locked database objects
- Understand cursors and prepared statements

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

FN-848 -Managing and Optimizing Informix Dynamic Server Databases

Course Code: FN-848

Duration: 4 Days

Overview:

For Informix Dynamic Server and Informix Dynamic Server.2000 database administrators and application developers. Gain experience creating, modifying, and removing databases, tables, and indexes. Learn how to control security, maintain data integrity, maintain concurrency

control, and improve performance in the Informix Dynamic Server.2000 environment.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- FN-611 Relational Database Design or equivalent knowledge
- FN-613 IBM Informix Structured Query Language or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Select the Informix Dynamic Server.2000 data types appropriate for storing your data
- Create and maintain databases, tables, and indexes
- Implement referential and entity integrity
- Estimate the size and extent requirements for tables and indexes
- Create and maintain fragmented tables and fragmented indexes
- Improve decision support query performance through the use of PDQ (parallel database query)
- Improve query performance through the use of SET EXPLAIN
- Describe concurrency control
- Create an indexing strategy to improve performance
- Plan for and configure triggers
- Create and use views
- Control data security
- Use Informix database management utilities

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

FN-910 - Data Migration and Reorganization

Course Code: FN-910

Duration: 2 Days

Overview:

For Informix Dynamic Server and Informix Dynamic Server.2000 database administrators and application developers. Gain experience using Informix data movement utilities, including SQL LOAD and UNLOAD, dbload, dbexport, dbimport, onload, onunload, and the High Performance Loader. Learn how to select the appropriate tool to move data in and out of tables and databases. Special emphasis is placed on using and tuning the High Performance Loader.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- FN-611 Relational Database Design or equivalent knowledge
- FN-613 IBM Informix Structured Query Language or equivalent knowledge
- FN-848 Managing and Optimizing Informix Dynamic Server Databases
- L2-849 Implementing an Object-Relational Database using Informix Dynamic Server is recommended

Objectives:

After completing this course, you should be able to:

- Identify the Informix tools available for data migration and reorganization
- Select the best tool for various data migration tasks
- Create High Performance Loader objects: devices, formats, maps, filters, and queries
- Define High Performance Loader objects to provide maximum reusability
- Assemble High Performance Loader objects to create load and unload jobs
- Use the iupload GUI interface to create objects and jobs

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- Use the autogenerate features of the High Performance Loader to generate maps, formats, load jobs and unload jobs
- Monitor and tune onload for optimal performance
- Use Deluxe and Express mode loads
- Troubleshoot common problems with the High Performance Loader

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

L1-920 - IBM Informix Red Brick Decision Server Administration

Course Code: L1-920

Duration: 4 Days

Overview:

This course provides practical, hands-on experience with building, loading, indexing, administering, and monitoring an Informix Red Brick Decision Server database. Learn how to create, load, and index database tables, how to segment table and index data, and how to define database users and roles. Learn how to use query-priority concurrency to decrease the load window.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- Fundamental knowledge of the UNIX operating system
- FN-613 IBM Informix Structured Query Language or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Describe the differences between OLTP and data warehousing
- Create an Informix Red Brick Decision Server database

- Create database users and assign security levels
- Connect to a database through ODBC
- Create database tables
- Load and unload data with the Table Management Utility (TMU)
- Create various types of indexes and understand their structure and use
- Segment tables and index data
- Use query-priority concurrency to decrease the load window
- View metadata in the database system tables
- Monitor different database activities
- Use both the command line and the Informix Red Brick Decision Server Administrator tool to define and manage the environment

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

L1-846 - IBM Informix Dynamic Server Administration

Course Code: L1-846

Duration: 4 Days

Overview:

This course is intended for Informix Dynamic Server and Informix Dynamic Server system administrators. Learn the skills necessary to successfully administer one or more database servers. Learn how to configure and initialize a database server instance, configure and test client connectivity, configure and manage memory and disk usage, plan and implement system maintenance tasks, and configure the server for optimal OLTP or decision support

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- Fundamental knowledge of the UNIX operating system
- FN-613 IBM Informix Structured Query Language or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Describe the Informix Dynamic Server multi-threaded architecture
- Configure an Informix Dynamic Server database server
- Set up a multiple residency environment
- Plan and configure disk and memory usage
- Enable and configure disk mirroring
- Describe basic Informix Dynamic Server recovery and fault tolerance mechanisms
- Configure and manage logical logs
- Manage and optimize index builds and query sort space
- Manage temporary tables and files
- Monitor Informix Dynamic Server activity
- Manage data access by concurrent users
- Allocate memory for decision support queries
- Use the ontape utility to back up and restore data
- Use Informix Server Administrator to manage database servers

Course Delivery:

This course has Lecture, hands-on and written exercises. [Return to Map](#)

L1-007 - Developing Applications Using Informix 4GL

Course Code: L1-007

Duration: 4 Days

Overview:

This course introduces you to the powerful features of Informix 4GL, a complete fourth-generation application development language. Using Informix 4GL, build an integrated application that features easy-to-use menus, data entry

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screens, reports, and on-line help, all with significantly less code than conventional programming languages require.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- Programming experience
- Knowledge of the vi text editor
- Fundamental knowledge of the UNIX operating system
- FN-611 Relational Database Design or equivalent knowledge
- FN-613 IBM Informix Structured Query Language or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Develop custom applications using Informix 4GL
- Create custom menus
- Create custom data entry forms
- Use the Y2K CENTURY attribute
- Effectively use SQL statements in your application
- Integrate on-line help facilities into your application
- Incorporate error-handling routines into your application
- Use transactions in your application
- Produce custom reports
- Use screen arrays
- Insert multiple rows using arrays
- Execute dynamic SQL statements
- Lock database rows during updates

Course Delivery:

This course has Lecture, hands-on and written exercises [Return to Map](#)

L2-791 - Informix Red Brick Decision Server Performance and Tuning

Course Code: L2-791

Duration: 3 Days

Overview:

Learn how to improve the query and load performance of an Informix Red Brick Decision Server database. Beginning with discussions of methodology and the criteria for good data warehouse design, the central units of the class cover different ways to tune queries: rewriting the SQL, adding indexes, allocating more memory, and so on. The course ends with a discussion of load performance with the Table Management Utility (TMU).

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

- L1-920 Informix Red Brick Decision Server Administration or equivalent knowledge OR six months' experience with Informix Red Brick Decision Server

Objectives:

After completing this course, you should be able to:

- Apply a proven methodology to query tuning
- Tune queries by using SQL more efficiently
- Pinpoint the time-consuming parts of a query
- Read the EXPLAIN output to evaluate query execution plans
- Identify which query plan was chosen for a query and why
- Tune queries by indexing tables efficiently
- Tune queries by allocating memory and parallel processes sensibly
- Optimize table-loading and index-building operations

Course Delivery:

This course has Lecture, hands-on and written exercises [Return to Map](#)

L2-403 - Informix Red Brick Decision Server Performance and Tuning

Course Code: L2-403

Duration: 4 Days

Overview:

For experienced Informix Dynamic Server database and system administrators. Learn practical information on how to improve performance in your Informix Dynamic Server and UNIX environment. Learn how to monitor and analyze system activity. Learn how to create data distributions to provide better statistics to the optimizer. Learn how to optimize fragmentation strategies and apply guidelines. Learn how to optimize and manage resources in the parallel data query (PDQ) environment. Data loading and indexing are also addressed.

Audience:

Application developers, database and systems administrators, system analysts, project leaders, technical support personnel.

Prerequisites:

Experience using Informix Dynamic Server

- FN-848 Managing and Optimizing IBM Informix Dynamic Server Databases
- L1-846 IBM Informix Dynamic Server Administration or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Use Informix Dynamic Server monitoring utilities
- Identify optimal fragmentation strategies
- Identify strategies for improving data loads and indexing
- Manage memory and CPU system resources
- Tune OLTP environment
- Tune checkpoints

Course Delivery:

This course has Lecture, hands-on and written exercises

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L2-748 - Informix Dynamic Server Backup and Restore

Course Code: L2-748

Duration: 4 Days

Overview:

This course focuses on backup and recovery planning. Through a variety of exercises, you will define what recovery means for your business, identify constraints affecting recovery, and begin to develop a strategy for backup and recovery planning. During the course, you will explore alternative methods for backup and recovery and determine when each should be used. ON-Bar is the primary utility used in class and will be covered in detail along with the Informix Storage Manager (ISM). Other topics that will be addressed in this course include backup and restore validation, system monitoring, logical log backup, testing the restore strategy, and tuning restore time.

Audience:

Database and System Administrators.

Prerequisites:

- L1-846 Informix Dynamic Server Administration or equivalent knowledge

Objectives:

After completing this course, you should be able to:

- Plan recovery goals
- Identify and select the proper recovery tools
- Explain the Informix backup and restore strategy
- Perform a system backup using the ON-Bar utility
- Configure ISM for use by ON-Bar
- Explain the importance of logical log backup
- Restore an Informix Dynamic Server database server using the ON-Bar Utility
- Backup additional system files

- Test the restore strategy
- Tune recovery objects to optimize restore time

Course Delivery:

This course has Lecture, hands-on and written exercises

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L2-224 - Advanced Informix 4GL Development

Course Code: L2-224

Duration: 3 Days

Overview:

This course covers advanced Informix 4GL topics for the experienced 4GL programmer in a UNIX environment, including standards and tools that are useful for making your development environment more productive. Learn how to implement source code control using Source Code Control System(SCCS), compile applications using makefiles, and debug applications using the Informix 4GL Interactive Debugger. Create a custom runner and debugger for Informix 4GL RDS. Learn how to create and implement 4GL libraries, generic error handling routines, and advanced screen arrays. Learn how to call a C function from a 4GL program. Learn 4GL code, compile, and design optimization techniques. Also covers performance issues related to transactions and locking.

Audience:

Application developers, project leaders, technical support personnel

Prerequisites

- Experience developing Informix 4GL applications
- L1-007 Developing Applications Using Informix 4GL or equivalent knowledge

Objectives:

After completing this course, you should be able to

- Use SCCS for source code control
- Compile 4GL applications using MAKE
- Use 4GL stub programs to increase productivity

- Create 4GL libraries
- Implement re-usable error handling routines
- Create advanced screen arrays
- Call a C function from a 4GL program
- Debug applications using the Informix 4GL Interactive Debugger
- Create custom runners and debuggers for Informix 4GL RDS
- Implement 4GL code, compile, and design optimization techniques
- Understand transaction and locking issues related to performance

Course Delivery:

This course has Lecture, hands-on and written exercises

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L2-726 - Migrating to Informix Dynamic 4GL

Course Code: L2-726

Duration: 2 Days

Overview:

This hands-on course teaches experienced Informix 4GL programmers how to use Informix Dynamic 4GL to recompile 4GL applications into thin, universal, graphical applications. Informix Dynamic 4GL applications simultaneously support ASCII terminals, the X Window System (X11), and any other Microsoft Windows (3.1q1, 95, or NT) environments. Learn how to rejuvenate existing Informix 4GL applications into modern, thin, client-server systems. Learn how to extend your existing 4GL application with GUI specific controls without losing compatibility with the Informix 4GL compiler.

Audience:

Application developers, project leaders, technical support personnel

Prerequisites

- L1-007 Developing Applications Using Informix 4GL or experience developing Informix 4GL applications

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Objectives:

After completing this course, you should be able to:

- Install and configure Informix Dynamic 4GL
- Establish client-server and database connections
- Summarize the three-tiered architecture of Informix Dynamic 4GL applications
- Recompile an existing Informix 4GL application and run it in a GUI environment, without changing any source code
- Evaluate compiler options
- Choose and implement appropriate graphical elements for forms such as listboxes, radio buttons, check boxes, scrolling fields, and pictures
- Design and implement appropriate dialog boxes to communicate with the user
- Configure user profiles
- Deploy a Informix Dynamic 4GL application

Course Delivery:

This course has Lecture, hands-on and written exercises

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TM150 - Tivoli Management Framework 3.7

Course Code: TM150

Duration: 3 Days

Overview:

Learn the fundamentals of Tivoli Framework, the foundation of most Tivoli Enterprise products. Knowledge of Framework terms, resources, and concepts is an important first step in your preparation for success with Tivoli Enterprise products. Master several key skills needed to perform day-to-day administrative functions. Learn new terminology and concepts associated with administering a Tivoli Framework installation. Practice concepts by performing lab exercises.

This is an introductory course that assumes little or no Framework experience. Learn the Tivoli Framework fundamentals in preparation for Tivoli product courses that

are dependent upon the Framework infrastructure and more advanced Framework courses.

Audience:

System administrators and implementers unfamiliar with Tivoli Framework.

Prerequisites

- Familiarity with network concepts, especially Transmission Control Protocol / Internet Protocol (TCP/IP)
- Working knowledge of systems administration concepts for UNIX (preferably Solaris 2.x, AIX, or HP-UX) and Windows NT
- Working knowledge in windowing software operation on UNIX (Openlook, Motif, and Common Desktop Environment (CDE)) and Microsoft (MS) Windows 95 or NT 3.5 or 4.0
- Knowledge of basic UNIX shell commands is strongly recommended.

Objectives:

After completing this course, you should be able to:

- Describe the Tivoli Enterprise environment and the applications that use the Tivoli architecture
- Operate and navigate within the Tivoli desktop
- Define Tivoli authorization and authentication through Tivoli administrators, roles, and policy regions
- Create and distribute Tivoli profiles and profile managers
- Create and execute Tivoli tasks and jobs, and use the Tivoli scheduler
- Define the different types of Tivoli policies
- Create and configure management gateways and Tivoli Management Agents (TMA)
- Explain the installation process for Tivoli Framework software

Contents

- Introduction to Tivoli
- Framework overview
- Tivoli resources
- Tivoli authorization and authentication

- Tivoli management agents
- Profiles and profile managers
- Policy overview
- Tivoli database and Relational Database Management System (RDBMS) Interface Module (RIM) database
- Interconnecting Tivoli Management Regions (TMR)
- Command line interface for Framework
- Introduction to installation

Course Delivery:

This course has Lecture, hands-on and written exercises

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TM250 - Tivoli Management Framework 3.7 for Senior Administrators

Course Code: TM250

Duration: 4 Days

Overview:

Tivoli Management Framework is the nucleus of the Tivoli Management Environment (TME). Its exceptional architecture provides unequaled systems management control and organization capabilities. Expand your Tivoli Management Framework skills beyond the level covered in the prerequisites. Learn operational factors and considerations that help you make decisions about design and implementation. Also, learn about interconnection between Tivoli Management Regions (TMR), maintaining the Tivoli object database, and troubleshooting techniques. Practice your skills in hands-on labs.

Audience:

Senior system administrators, implementers, Tivoli engineers, and support individuals, who need advanced knowledge and troubleshooting expertise in Tivoli Framework and Tivoli applications.

Prerequisites

You should complete:

- Tivoli Management Framework (TM150) or have equivalent knowledge.

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The following skills and areas of knowledge are also required:

- Senior system administrator knowledge level on UNIX servers and NT Server (3.51 or 4.0 server)
- Knowledge of windowing software operation on UNIX X-windows including:
 - Openlook
 - Motif
 - Common Desktop Environment (CDE)
 - Microsoft (MS) Windows 95, NT 3.5 and 4.0
- Understanding of networking terms and concepts.
- Basic operations and understanding of TME, including the use of:
 - Tivoli security roles
 - Desktop
 - Tasks
 - Jobs and scheduler
 - Policy regions
 - Tivoli profile manager
 - Profile and how it relates to Tivoli applications

Objectives:

After completing this course, you should be able to:

- Design an efficient TME
- Describe the internal workings, deployment considerations, configuration and troubleshooting techniques of a Tivoli Management Agent (TMA)
- Configure an interconnection between TMRs to allow them to exchange resources
- Design and deploy Tivoli with Multiplexed Distribution (Mdist)
- Identify techniques for troubleshooting MDist problems
- Describe the Tivoli Relational Database Management System Interface Module (RIM) object, its configuration, and internal operations
- Identify the tasks needed to maintain a Tivoli object database, including its maintenance, scheduling, and backup and restore procedures

- Explain the internal design of Tivoli as an object system, including the background of the Tivoli Framework as a Common Object Request Broker Architecture (CORBA) compliant client/server architecture
- Use techniques for troubleshooting problems between the Tivoli Management Framework and other Tivoli applications

Contents

- Planning and design of the TME
- Installation and removal of Tivoli enterprise server software
- Installation of Tivoli applications using Software Installation Service (SIS)
- Tivoli framework policy
- Tivoli management agent: architecture and deployment issues
- TMR interconnections
- MDist issues and troubleshooting
- RIM issues and troubleshooting
- Maintaining the object database
- Troubleshooting the Tivoli object repository

Course Delivery:

This course has Lecture, hands-on and written exercises

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TR170 - Tivoli SecureWay User Administration 3.7

Course Code: TR170

Duration: 2 Days

Overview:

Tivoli SecureWay User Administration (TSUA) is a powerful tool to manage user accounts and account attributes across heterogeneous distributed systems. Develop skills to perform comprehensive user administration functions across a Tivoli Management Environment (TME).

Audience:

System administrators managing large numbers of users and group records.

Prerequisites:

You should complete:

- Tivoli Management Framework 3.7 (TM150) or have equivalent experience with TME and the installation and upgrading of Tivoli products. You should also have working knowledge of shell scripting.

Objectives:

After completing this course, you should be able to:

- Identify TSUA features
- Install and configure TSUA
- Identify TSUA considerations for Lightweight Directory Access Protocol (LDAP)
- Identify TSUA considerations for Network Information Service (NIS)
- Customize TSUA
- Maintain a TSUA installation

Contents

- Identifying TSUA features
- Installing and configuring TSUA
- Identifying TSUA considerations for LDAP
- Identifying TSUA considerations for NIS
- Customizing TSUA
- Maintaining a TSUA installation

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TR120 - Tivoli SecureWay Security Management 3.7.1 Implementation

Course Code: TR120

Duration: 4 Days

Overview:

Tivoli SecureWay Security Manager product is a powerful role-based application that greatly facilitates managing

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access to enterprise resources. Learn to translate the security policies established by the client into automated processes supported by Tivoli SecureWay Security Manager. Through hands-on exercises, you install, configure, and integrate Tivoli SecureWay Security Manager into an existing Tivoli Management Region (TMR) policy region. Also, practice interpreting and implementing security policies.

Audience:

Tivoli Services consultants, post-sales engineers, deployment engineers, and IBM Business Partner consultants.

Prerequisites:

You should complete:

- Tivoli Management Framework 3.7 (TM150)
- Tivoli SecureWay User Administration 3.7 (TR170)
- Tivoli SecureWay Policy Director 3.7 Fundamentals (TR300)
- or have equivalent experience.

Objectives:

After completing this course, you should be able to:

- Install, setup, configure, and troubleshoot Tivoli SecureWay Security Manager
- Integrate Tivoli SecureWay Security Manager with Tivoli User Administration
- Translate a given security policy into Tivoli SecureWay Security Manager profile configurations
- Describe migration methods from Tivoli Access Control Facility (TACF) to Policy Director for Operating Systems (PDOS)
- Describe differences between TACF and PDOS

Contents

- Tivoli SecureWay Security Manager 3.7.1 Unix Implementation Overview
- Tivoli SecureWay Security Manager 3.7.1 Installation and Integration
- PDOS Implementation
- Tivoli SecureWay Security Manager - NT Security Implementation

- Security System Protection Configuration
- Security Policy Translation
- TACF to PDOS Migration
- PDOS Troubleshooting

Course Delivery:

This course has Lecture, hands-on and written exercises

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TM090 - Tivoli Enterprise Console 3.7

Course Code: TM090

Duration: 3 Days

Overview:

Tivoli Enterprise Console (TEC) is a powerful enterprise-wide event monitoring and event correlation tool. Learn important concepts about the theory of operation of the TEC components, their relationships to one another and their relationship to the TEC 3.7 operating environment. Develop skills used in installing, configuring, programming and operating the TEC product and its numerous components with a series of hands-on labs.

Audience:

Tivoli administrators responsible for creating, configuring, and using the event console, and those individuals responsible for programming the Rules engine.

Prerequisites:

You should complete:

- Tivoli Management Framework 3.7 (TM150) or have equivalent experience. Experience with text editors is also required.

Objectives:

After completing this course, you should be able to:

- Identify the components of TEC 3.7 and describe their functional operation
- Authorize administrators to view and modify events
- Install, customize, and use the event console display
- Identify and configure event adapters

- Define new event classes using Basic Recorder of Objects in C (BAROC)
- Create and maintain rule bases
- Create simple and compound rules
- Modify the logfile adapter to process customer defined events Identify typical processes used to troubleshoot problems within the TEC 3.7 environment

Contents

- Tivoli Enterprise Console concepts
- Tivoli Enterprise Console foundations
- Event adapters
- Event management
- Using and customizing the event console
- Event definition
- Rules
- Rule builder examples
- Design considerations
- Logfile adapter

Course Delivery:

This course has Lecture, hands-on and written exercises

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TM180 - Tivoli Distributed Monitoring 3.6

Course Code: TM180

Duration: 2 Days

Overview:

Tivoli Distributed Monitoring is an efficient, reliable, automated tool that provides Information Technology (IT) administrators the capabilities to closely monitor the status and performance of mission-critical distributed applications and computing resources. Learn to configure, operate, customize, and troubleshoot Tivoli Distributed Monitoring. Practice your skills in a complex lab environment.

Audience:

System administrators who set up, configure, or use Tivoli Distributed Monitoring.

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Prerequisites:

You should complete:

- Tivoli Management Framework 3.7 (TM150) or have equivalent experience.

Objectives:

After completing this course, you should be able to:

- Describe the components of Tivoli Distributed Monitoring
- Distribute monitor profiles
- Configure, display, and interpret Tivoli monitors and Tivoli indicator collections
- Configure monitors to initiate Tivoli Enterprise Console (TEC) events
- Create and distribute, standard, custom and asynchronous monitoring profiles
- Use Tivoli manager for Windows NT to monitor NT systems
- Define and use proxy endpoints
- Use default source profiles
- Troubleshoot Tivoli Distributed Monitoring

Contents

- Tivoli Distributed Monitoring overview
- Tivoli Distributed Monitoring profiles
- Tivoli Distributed Monitoring functions
- Custom monitors
- Tivoli Manager for Windows NT
- Data collection and reporting
- Proxy objects
- Troubleshooting Tivoli Distributed Monitoring
- Additional resources

Course Delivery:

This course has Lecture, hands-on and written exercises

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TM190 - Tivoli Inventory 3.6

Course Code: TM190

Duration: 2 Days

Overview:

Tivoli Inventory offers enterprise-class inventory management. Because it automatically scans for, and collects, hardware and software configuration information from computer systems in your enterprise, Tivoli Inventory can dramatically reduce the costs of asset management efforts. Learn how to administer and implement Tivoli Inventory and Scalable Collection Service. Collect inventory data on the hardware and software present in your enterprise environment and use queries to display inventory information. Learn to collect custom information, such as user-supplied, Desktop Management Interface (DMI) and Basic Input/Output System (BIOS) information. Practice concepts by performing student lab exercises.

Audience:

Tivoli administrators and operators responsible for configuring and using the Tivoli Inventory application and individuals responsible for using the results of the inventory data for monitoring physical inventory and software license accounting.

Prerequisites:

You should complete:

- Tivoli Management Framework (TM150)
- or have working knowledge of Tivoli Framework, specifically; the use of the Tivoli desktop, populating the administrators desktop, profile creation and management, and an understanding of authorization roles within Tivoli Framework. You should also have working knowledge of hardware and software concepts for NT, UNIX, and Windows 95 operating systems, and basic knowledge of inventory control, system configuration management, database, and Structured Query Language (SQL) concepts.

Objectives:

After completing this course, you should be able to:

- Describe the basics of a Tivoli Inventory environment

- Gather hardware and software information using Tivoli provided Inventory scanners
- Use Tivoli Inventory scanners to create configuration files
- View Inventory data from the configuration repository
- Manage Inventory distributions and collections
- Gather custom network information
- Install and configure Tivoli Inventory
- Implement Scalable Collection Service

Contents

- Introduction to Tivoli Inventory 3.6
- Gathering hardware and software information
- Gathering configuration file information
- Viewing Tivoli Inventory data
- Managing distributions and collections
- Gathering custom information
- Planning and installing Tivoli Inventory and Scalable Collection Service

Course Delivery:

This course has Lecture, hands-on and written exercises

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TR300 - Tivoli SecureWay Policy Director 3.7 Fundamentals

Course Code: TR300

Duration: 1 Day

Overview:

Tivoli SecureWay Policy Director is a robust and secure policy management tool for e-business and distributed applications. It uniquely addresses the challenges of e-business security: escalating costs, growing complexity, and the inability to implement security policies across platforms. Learn about the Tivoli SecureWay Policy Director architecture, components, and functions. Reinforce classroom discussions with interactive quizzes and hands-on labs that demonstrate basic Policy Director features and functions.

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Audience:

System administrators and security specialists who need to understand the concepts and functions of Tivoli SecureWay Policy Director.

Prerequisites:

You should have the following knowledge and skills:

- Networking terms and definitions
- Object-oriented design terms and definitions
- Client/server terms and definition
- Working knowledge of a browser (Internet Explorer or Netscape)

Objectives:

After completing this course, you should be able to:

- Determine the components, architecture, and functionality of Tivoli SecureWay Policy Director
- Determine authentication and authorization mechanisms
- Administer users and groups
- Secure access to the resources of an organization

Contents

- Introduction to Tivoli SecureWay Policy Director
- Administering users and groups using the management console
- Using Policy Director Security Services
- Authentication support
- Access control using Tivoli SecureWay Policy Director
- Introducing junctions
- Uninstalling Tivoli SecureWay Policy Director

Course Delivery:

This course has Lecture, hands-on and written exercises

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TR330 - Tivoli SecureWay Policy Director 3.7 System Administration

Course Code: TR330

Duration: 4 Days

Overview

Tivoli SecureWay Policy Director (PD) is a robust and secure policy management tool for e-business and distributed applications. Learn about the capabilities and advanced configuration techniques of PD. Develop the knowledge and skills you need to set up PD in a multiplatform, multisystem environment by completing building block exercises.

Audience:

System administrators responsible for the administration and configuration of PD components.

Prerequisites:

You should complete:

- Tivoli SecureWay Policy Director 3.7 Fundamentals (TR300) and be familiar with PD concepts and features.
- You should also have basic system administrative skills for UNIX and Windows NT and know:
 - Distributed Computing Environment (DCE) installation and administration
 - Lightweight Directory Access Protocol (LDAP) installation
 - Transmission Control Protocol / Internet Protocol (TCP/IP) fundamentals
 - Networking concepts
 - Firewall concepts

Objectives:

After completing this course, you should be able to:

- Install and configure DCE, DB2, LDAP, IBM Hypertext Transfer Protocol (HTTP) Server, and PD components (ivmgr, ivbase, ivweb, ivnet, and ivtrap) in a realistic scenario involving multiple machines
- Install and configure an LDAP replica server and cover load balancing and fail-over scenarios
- Install and configure a DCE replica server and test failover scenarios
- Configure DCE for TCP-only communication

- Create PD users and groups
- Configure WebSEAL for forms-based authentication
- Customization of login forms for WebSEAL.
- Examine PD log files
- Create and install a Common Gateway Interface (CGI) program to dump PD headers on junctioned Web servers
- Create and modify Access Control Lists (ACL)
- Install and configure query_contents on third-party Web servers
- Create WebSEAL junctions to third-party Web servers
- Install and configure NetSEAL client and test fail-over scenarios
- Configure NetSEAL to protect Telnet ports
- Create Global Sign-On (GSO) targets

Contents

- PD concepts and components
- Installing PD components
- LDAP as a user registry
- Introduction to DCE
- WebSEAL and NetSEAL
- GSO
- Accountability and auditing

Course Delivery:

This course has Lecture, hands-on and written exercises

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TR320 - Tivoli SecureWay Policy Director Architecture and Solution Design

Course Code: TR320

Duration: 4 Days

Overview:

Tivoli SecureWay Policy Director is designed to unite core security technologies around common security policies. This helps reduce implementation time and management complexity, thereby lowering the total cost of secure computing. Learn about Policy Director solution design based

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on an existing infrastructure and client expectations. Discuss how Policy Director integrates into an environment with existing authentication methods and existing Web servers and load balancing products. Learn the Distributed Computing Environment (DCE) cell design principles. Evaluate the pros and cons of DCE versus Lightweight Directory Access Protocol (LDAP) registries. Use the IBM LDAP Directory, learning concepts, capabilities, and tips on LDAP population, termination, and usage. Also, learn about integrating applications with Policy Director and SecureWay Public Key Infrastructure (PKI) integration. Apply the techniques presented in class to a detailed case study.

Audience:

Senior network security consultants using Policy Director to implement enterprise security policy.

Prerequisites:

You should be familiar with:

- Policy Director concepts and features
- Third-party web server fundamentals
- LDAP fundamentals
- PKI fundamentals
- Security policy management concepts
- Security communication protocols
- Firewall concepts
- Directory services fundamentals
- Basic Web page development fundamentals (including security issues)

Objectives:

After completing this course, you should be able to:

- Specify the security policy of an organization
- Design DCE for Policy Director
- Design directory servers for Policy Director
- Integrate Policy Director with the firewall architecture
- Perform capacity planning
- Integrate applications with Policy Director
- Design SecureWay PKI for Policy Director

Contents

- Policy Director concepts and overview
- Defining security policy
- DCE cell design
- LDAP design
- Network topology design
- Capacity planning
- Application integration
- SecureWay PKI integration
- Solution Architect Frequently Asked Questions (FAQ)
- Workshop

Course Delivery:

This course has Lecture, hands-on and written exercises

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TS51 - Tivoli Storage Manager 4.1 Implementation

Course Code: TS51

Duration: 5 Days

Overview:

Are you concerned about your most valuable corporate asset -- information? Tivoli Storage Manager utilizes high performance patented technologies to protect and manage your mission-critical business information. Tivoli Storage Manager is the product of choice in more than one million systems worldwide, including more than 80 of the Fortune 100 companies. Learn how to implement Tivoli Storage Manager version 4.1, across the enterprise, in a standard installation environment and in a customized environment. Learn how to implement automatic policy-driven backup, restore, archive, and retrieval functions at both the Tivoli Storage Manager server and client workstations.

Develop the Tivoli Storage Manager administrative interface skills that allow you to manage the Tivoli Storage Manager server, database, recovery log, storage pools, and client policies.

The skills learned in this course apply to all Tivoli Storage Manager 4.1 client and server platforms.

Audience:

Individuals and IBM Business Partners (consultants, architects, project managers, and implementers) who perform hands-on implementation or administration of the Tivoli Storage Manager product.

Prerequisites:

None.

Objectives:

After completing this course, you should be able to

- Define the Tivoli Storage Manager components and related products
- Install, customize, and implement Tivoli Storage Manager
- Perform administrator functions, such as managing the Tivoli Storage Manager server, database, recovery log, storage pools, policies, and schedules
- Perform backup-archive client functions, such as backup, restore, archive, and retrieve

Contents:

- Tivoli Storage Manager overview
- Installation, packaging, and licensing
- Tivoli Storage Manager server administration
- Implementing client functions
- Policy management
- Central scheduler
- Centralized event logging and Tivoli Storage Manager database reporting
- Database and storage pool backup and recovery

Course Delivery:

This course has Lecture, hands-on and written exercises

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TS52- Tivoli Storage Manager 4.1 Advanced Administration

Course Code: TS52

Duration: 4 Days

Overview:

Learn to configure the Tivoli Storage Manager database and recovery log for optimum performance and availability. Develop the skills to run client and server trace functions, write and execute server scripts, and recover corrupted storage pool volumes. Learn to recover a destroyed Tivoli Storage Manager database and a database volume. Run the Tivoli Storage Manager audit volume command against primary storage pool volumes to determine if any of the volumes are corrupted, then recover both a corrupted storage pool volume, as well as an entire primary storage pool.

Get in-depth administration training for Tivoli Storage Manager 4.1. This course is the follow-on to:

- Tivoli Storage Manager 4.1 Administration (TS51)
- Learn about key product enhancements for Tivoli Storage Manager 4.1, such as integration with:
- Tivoli Data Protection Agents
 - Tivoli Disaster Recovery Manager
 - Tivoli Space Manager
 - Tivoli SANergy File Sharing
 - Tivoli Removable Media Manager
 - Tivoli Decision Support

Audience:

System administrators, technical consultants, and implementers who require in-depth knowledge of Tivoli Storage Manager administration.

Prerequisites:

You should complete:

- Tivoli Storage Manager 4.1 Administration (TS51) or have completed its previous versions:
- ADSM Version 3 Implementation (SS50A) or
- Tivoli Storage Manager 3.7 Implementation (SS50B) or have equivalent Tivoli Storage Manager implementation knowledge and skills.

Objectives:

After completing this course, you should be able to:

- Configure and administer Tivoli Storage Manager's enterprise administration environment
- Configure and administer Tivoli Storage Manager's server-to-server virtual volumes environment
- Perform both client and server trace functions
- Recover the Tivoli Storage Manager database, or a single Tivoli Storage Manager database volume
- Recover a Tivoli Storage Manager primary storage pool, or a single Tivoli Storage Manager primary storage pool volume
- Write and execute server scripts
- Change key Tivoli Storage Manager performance parameters to their recommended values
- Evaluate the need for products that integrate with Tivoli Storage Manager, Tivoli Disaster Recovery Manager, Tivoli Space Manager, Tivoli SANergy File Sharing, Tivoli Data Protection agents, Tivoli Decision Support, Tivoli Removable Media Manager, and EMC Symetrics Timefinder

Contents:

- Basics of Tivoli Storage Manager 4.1
- High-level operational management
- Mirror and storage pool volume determination
- Working with tape libraries
- Network capacity planning
- Performance tuning
- Problem determination and trace function
- Tivoli Storage Manager reporting
- Server-to-server virtual volumes
- Day-to-day operations
- Enterprise administration
- Integration with Tivoli Storage Manager

Course Delivery:

This course has Lecture, hands-on and written exercises

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TW01 - Tivoli Workload Scheduler 7.0 Scheduling and Operations

Course Code: TW01

Duration: 2 Days

Overview:

Learn how the Tivoli Workload Scheduler (TWS) can schedule, coordinate and automate mission-critical application execution across the enterprise. Gain an understanding of the TWS features, environment, and new terminology. Learn to plan, implement, monitor, and efficiently manage a TWS Production Day Plan. Learn about the new Job Scheduling Console and time zone feature. Build a plan by defining and documenting the plan objects and their properties and use recovery options, external dependencies, prompts and other plan objects to design job and job stream instances. Develop valuable skills for optimizing and troubleshooting plans. This training is in a classroom environment with hands-on laboratory exercises.

Audience:

New Tivoli Workload Scheduler users seeking proficiency in the TWS 7.0 environment on UNIX and Windows NT platforms. Existing schedulers, operators and their supervisors and /managers at sites converting from previous versions of Tivoli Workload Scheduler (Maestro) to Tivoli Workload Scheduler 7.0.

Prerequisites:

You should have:

- General computer literacy in a Graphical User Interface (GUI) environment
- An understanding of production management and batch processing scheduling
- Knowledge of current production job processing flow in the local environment
- Knowledge of file navigation, file editing, and command prompt actions for the UNIX, or NT operating systems

Objectives:

After completing this course, you should be able to:

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- Describe how TWS launches and monitors Jobs from Job Stream instances
- Filter displayed database and plan information using list groups and list properties
- Specify properties and external dependencies for Jobs and Job Streams
- Submit job instances and job stream instances into an existing plan
- Use the Job Scheduling Console (JSC) to monitor job stream instances, job instances and objects on the current plan list
- Troubleshoot job stream execution, TWS plans and network problems
- View and print Job Stream documentation, Job instance output and standard reports
- Stop and start TWS processes, link and unlink workstations and switch workstation domain managers
- Configure TWS Job automated recovery options
- Integrate Parameters and environment variables into local configuration scripts
- Construct a Processing Flow Diagram and general Job Stream processing Plan
- Compose a Job Stream from Job Stream objects, including Job definitions
- Identify problems using basic Audit and Trace utility techniques
- Use the command line interface to perform Database object ASCII backups and mass updates

Contents:

- TWS Scheduling and Objects Overview
- Plan Monitoring and Management
- Plan Problem-Solving Approaches
- Submitting Additional Work
- Job Stream Objects & Planning
- Creating and Optimizing Job Streams
- Job Stream Problem Solving Approaches

Course Delivery:

This course has Lecture, hands-on and written exercises

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TW02 - Tivoli Workload Scheduler 7.0 Administration

Course Code: TW02

Duration: 2 Days

Overview:

Tivoli Workload Scheduler (TWS) manages workloads in today's distributed computing environments. TWS' underlying architecture ensures that business and mission-critical applications run within an infrastructure that is secure, fault tolerant, and scalable. Study network planning, installation, maintenance, configuration and problem solving. Gain an in-depth look at the TWS background processes, production cycle and production processing. The network planning discussion will include information on the types of TWS workstations, advantages of domains and of designing a network to meet the needs of your environment. Training is delivered in a classroom environment with multiple opportunities to practice concepts by performing lab exercises.

Audience:

TWS system and network administrators who are responsible for TWS 7.0 network planning, installation, maintenance, configuration and problem solving, or who are converting to 7.0 from earlier versions.

Prerequisites:

You should complete:

- Tivoli Workload Scheduler Scheduling and Operations (TW01)
- Tivoli Management Framework (TM150) or possess equivalent experience in editing using vi and knowledge of the current job management methodology in your local environment.

Objectives:

After completing this course, you should be able to:

- Describe the TWS processes, their functions and interaction
- Customize job execution
- Plan, install and configure a TWS network and individual workstations
- Manage TWS security
- Configure the auditing feature
- Create a Symphony file
- Generate reports
- Create workstation and domain definitions in the TWS database
- Plan TWS and Framework workstation installation
- Update an installation of TWS
- Configure Framework for TWS
- Perform maintenance functions
- Backup the master domain manager
- Troubleshoot problems in the TWS network

Contents:

- Scheduling
- Network Planning
- Domain and Workstation Definitions
- Tivoli Workload Scheduler Processes
- TWS Engine Installation
- Other Installations
- Security
- Configuration

Course Delivery:

This course has Lecture, hands-on and written exercises

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TV050 - Tivoli NetView 6.0 for UNIX for Administrators

Education/Certification Quick Reference Course Descriptions

Course Code: TV050

Duration: 5 Days

Overview:

Tivoli NetView enables users to discover Transmission Control Protocol/Internet Protocol (TCP/IP) networks, display network topologies, correlate and manage events and Simple Network Management Protocol (SNMP) traps, monitor network health, and gather performance data. Tivoli NetView meets the needs of managers of large networks by providing the scalability and flexibility to manage mission-critical environments. Develop the skills needed to install and configure Tivoli NetView 6.0 for UNIX. Gain skills needed to model your enterprise network, configure polling for critical network resources, filter and forward events as needed, and export collected data for analysis. Practice the skills presented in this instructor-led course during hands-on lab exercises.

Audience:

Network administrators responsible for the installation, configuration, and management of NetView servers, clients, and Mid-Level Managers (MLM).

Prerequisites:

- Operator-level NetView skills: ability to navigate NetView windows, monitor a network, locate objects, display object information, use a filter to view events, and use MIB tools to monitor system and network performance
- UNIX administration skills
- TCP/IP network management experience, including familiarity with router and SNMP configuration
- Shell script writing
- Experience configuring a Web server
- Network File System (NFS) implementation and administration

Objectives:

After completing this course, you should be able to:

- Perform basic installation and configuration of the NetView server, traditional client, Web client, and MLMs
- Migrate from a previous version of NetView

- Change Internet Protocol (IP) address and host name of NetView server
- Manage the size, location, and aging of network logs
- Manage NetView daemons and databases
- Define custom event filters, configure traps, and customize event applications
- Customize discovery of the network and status polling of devices on the network
- Customize the NetView interface, including X-windows display, symbol properties, submap layout, menu bar options, and custom objects
- Load new Management Information Bases (MIB) and use the MIB browser to configure SNMP on devices
- Create new SmartSets for objects providing a certain service or meeting specified criteria
- Use data collections and identify threshold routines for collection of SNMP data
- Build MIB applications to monitor system and network activity

Contents:

- Tivoli NetView for UNIX overview
- Installing and configuring NetView server and client
- Working with NetView databases
- Discovering the network
- Using SmartSets
- Customizing the map
- Using NetView MIB tools
- Managing events
- Installing and configuring MLMs

Course Delivery:

This course has Lecture, hands-on and written exercises

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TV060 - Tivoli NetView 6.0 for NT for Administrators

Course Code: TV060

Duration: 5 Days

Overview:

Develop the skills you need to install and configure Tivoli NetView 6.0 for NT. Learn how to model your enterprise network, configure polling for critical network resources, filter and forward events as needed, and export collected data for analysis. Practice the skills you learn in hands-on lab exercises.

Audience:

Individuals who plan, install, implement, or support Tivoli NetView for Windows NT. Individuals responsible for providing network management services within an enterprise.

Prerequisites:

You should have intermediate NT server administration skills, Transmission Control Protocol / Internet Protocol (TCP/IP) and Simple Network Management Protocol (SNMP) advanced experience and debugging skills, and understand general networking concepts, including routing, bridging, switching, and address resolution.

Objectives:

After completing this course, you should be able to:

- Install and configure NetView server, traditional client, Web client, and Mid-Level Managers (MLM)
- Migrate from a previous version of NetView
- Change the Internet Protocol (IP) address and hostname of a NetView server
- Manage the size, location, and aging of network logs
- Manage NetView daemons and databases
- Define custom event filters, configure traps, and customize event applications
- Customize discovery of the network and status polling of devices on the network
- Customize the NetView interface, including symbol properties, submap layout, menu bar options, and custom objects

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- Load new Management Information Bases (MIB) and use the MIB browser to configure SNMP on devices
- Create new SmartSets for objects providing a certain service or meeting specified criteria
- Use data collections and identify threshold routines for collection of SNMP data
- Build MIB applications to monitor system and network activity
- Configure Web Based Enterprise Management (WBEM) and use Wake-on-LAN features
- Describe the differences between NetView for NT and NetView IT Director Edition

Contents:

- Tivoli NetView for NT overview
- Installing and configuring NetView server
- Installing and configuring NetView client
- Working with NetView databases
- Discovering the network
- Using SmartSets
- Customizing the map
- Using NetView MIB tools
- Managing events
- Installing and configuring MLMs
- WBEM and Wake-on-LAN support

Course Delivery:

This course has Lecture, hands-on and written exercises
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NW48 - TCP/IP Architecture

Course Code: NW48

Duration: 3.0 Days

Overview:

This course teaches the TCP/IP architecture and is designed for a variety of audiences. The course is roughly partitioned into five parts:

- TCP/IP introduction and concepts

- Routing, addressing and naming
- UDP and TCP protocols
- IP, ICMP and Network Access Applications.
- BOOTP and DHCP
- Electronic mail
- File transfer
- Internet related applications
- Network File System

Audience:

The audience for this course can be selected to fit the needs of the education center. The intended audience is:

- Technical personnel that need background knowledge of TCP/IP
- Networking specialists who need indepth TCP/IP architecture knowledge

Prerequisites:

None.

Objectives:

By the successful conclusion of this course, you should be able to:

- TCP/IP introduction and concepts
- Define the need for TCP/IP
- Review the organisation and history of the Internet
- Describe the concept of an Internet
- Identify the members of the TCP/IP protocol suite
- Explain the concept of protocol layering
- Addressing, Routing and Naming
- Explain the structure of the Internet address
- Explain the concept of subnets and subnet masks
- Describe the need for routing within the Internet
- Describe how routing tables are created and used
- Explain how CIDR is used to reduce IP address usage and routing table size
- Explain the use of Internet names
- UDP and TCP Protocols

- Explain the concept of ports and sockets
- Describe the functions of UDP
- Explain window and flow control function of TCP
- Describe the 3-way handshake connection setup in TCP IP, ICMP and Network Access
- Describe the function of IP and its header
- Explain ICMP and some of its message types
- Explain the use of ARP and RARP
- Describe some of the transports supported by IP TCP/IP Applications
- Describe BOOTP and DHCP and how they work
- Describe the purpose of the SMTP protocol
- Explain the additional functions of POP and MIME
- Describe the Telnet application and the concept of a network virtual terminal
- Explain the function of FTP and give an example of command flow
- Describe TFTP and SFTP and explain the differences between them and FTP
- Summarise some of the applications used to surf the Internet.
- Describe the SUN NFS protocol and the associated RPC and XDF.

Course Delivery:

This course is structured in an Instructor-led, Lecture Only, Classroom format. [Return to Map](#)

IN29 - Internet Security and Firewalls Concepts

Course Code: IN29

Duration: 2.0 Days

Overview:

This course explains what the Internet is and the many risks involved in connecting to the Internet. The course explains how to use so-called "firewalls" to safely connect to the Internet. Cryptography is considered vital to support electronic commerce on the Internet. An overview of basic

cryptographic concepts is given.

Audience

Systems engineers and systems managers who will be responsible for their company's secure connection to the Internet

Prerequisites

A basic knowledge of computer networks and TCP/IP is assumed. Suitable introductory courses are

- TCP/IP Architecture (NW48) or
- Introduction to TCP/IP (NW14U)

Objectives

On completion you will know how:

- What the Internet is, and how it works
- The risks involved in connecting to the Internet
- The basic firewall components
- The typical firewall configurations
- The planning considerations in regard to DNS and Sendmail.

Attendees will also have a basic understanding of the cryptographic techniques being used on the Internet.

Contents

- Internet overview and network security
- TCP/IP protocols and security considerations
- TCP/IP applications and security considerations
- Network security building blocks
- DNS and planning considerations
- e-mail and planning considerations
- Cryptography Overview.

Course Delivery:

This course is structured in an Instructor-led, Lecture Only, Classroom format. [Return to Map](#)

IN33 - IBM Firewall for AIX Implementation

Course Code: IN33

Duration: 3.0 Days

Overview:

Students on this course will learn how to install and configure IBM Firewall for AIX.

Audience

Systems and networking personnel who are responsible for planning, installing and/or implementing Firewall products on AIX.

Prerequisites

Familiarity with:

- Basic security concepts
- TCP/IP operation
- AIX commands This course should only be taken by delegates who have attended the course AU07 or have equivalent experience and education.

Objectives

On completion you will be able to:

- List the steps required to install the Firewall for AIX product
- Define the Domain Name Server and Mail Server support included with Firewall for AIX
- Utilise the Java GUI interface
- Execute the customisation steps for the various firewall options supported by Firewall for AIX
- Utilise the Network Security Auditor
- Discuss the various logging options available with the Firewall product.

Contents

- Installation hardening
- JAVA-based GUI
- DNS, SafeMail
- Support for Network Address Translation (NAT)
- RealAudio support
- Socks

- Proxy
- Predefined filter rules
- Filtering enhancements
- New IP Tunnelling support
- Client tunnel
- Additional language support
- Monitoring and reporting
- Pager support
- Network Security Auditor
- SNMP interface.

Course Delivery:

This course has Lecture, hands-on and written exercises

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IN34 - IBM Firewall for NT Implementation

Course Code: IN34

Duration: 3.0 Days

Overview:

This course will teach the student how to install and configure the IBM eNetwork Firewall Version 3.2 for Windows NT. Hands-on labs are included as part of the learning process.

Audience

This course is intended for systems and networking personnel who are responsible for planning, installing and/or implementing the IBM eNetwork Firewall for Windows NT product.

Prerequisites

Before taking this course, you should be familiar with:

- Basic security concepts
- Working knowledge of TCP/IP, including DNS and Sendmail
- Working knowledge of Windows NT

The companion prerequisite course Internet Security and Firewall concepts (IN32/N3202) must be taken before attending the Firewall implementation course. Detailed

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knowledge of security issues, including the configuration of DNS, etc., are covered in the prerequisite course and will NOT be revisited in the implementation course. For your convenience, the two courses are typically offered back-to-back in the same week.

Objectives

On completion you will be able to:

- List the installation steps required to install the Firewall for Windows NT product
- Define the Domain Name Server and Mail Server support included with Firewall for AIX
- Exercise the Java GUI interface
- Exercise the customization steps for the various firewall options supported by the Firewall for Windows NT
- Discuss the various logging options available with the Firewall product

Contents

- Windows NT TCP/IP customization
- Firewall installation
- JAVA-based GUI
- Domain Name Services (DNS)
- Mail and SafeMail
- Filter rules
- Monitoring and reporting (logs)
- Firewall user administration
- Proxy services (FTP, Telnet, HTTP)
- Transparent proxies (FTP, Telnet, HTTP)
- Socks V5
- Network Address Translation (NAT)
- Virtual Private Networks

Course Delivery:

This course has Lecture, hands-on and written exercises

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IN36 - PKI Secureway Trust Authority Fundamentals

Course Code: IN36

Duration: 1.0 Day

Overview:

The purpose of this training is to provide an understanding of PKI and Trust Authority to those who work with PKI and Trust Authority.

Audience

This course is intended for students who wish to improve their understanding of the Public-Key Infrastructure (PKI) and Trust Authority technologies at a fundamental level.

Prerequisites

There are no prerequisites for this course.

Objectives

On completion you will be able to:

- Discuss the importance of e-business in Trust
- Explain Public-Key Infrastructure (PKI).
- Describe Trust Authority components, processes, and resources.

Course Delivery:

This course has Lecture, hands-on and written exercises

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IN37 - PKI Secureway Trust Authority Planning and Implementation

Course Code: IN37

Duration: 4.0 Days

Overview:

This course prepares those who install, use, and maintain IBM SecureWay Trust Authority to effectively implement Trust Authority solutions. Through lecture, discussions, demonstrations, and hands-on labs, students see what is needed in order to provide effective Trust Authority solutions.

Audience

The primary audience for this training consists of system integrators, product specialists, system engineers, solution

architects, customers, and IBM Business Partners. This course is not intended for marketing or sales personnel.

Prerequisites

The prerequisite knowledge and skills for this course are:

- Windows/NT (Level 4) or AIX (Level 4)
- Domain Name Server (DNS) (Level 3)
- Simple Mail Transfer Protocol (SMTP) (Level 3)
- Networking: TCP/IP, routing packet filtering, DNS and networking hardware (Level 3+)
- Basic Crypto (Level 2)
- PKI knowledge (Level 2+)
- Basic X.500/LDAP Directory skills (Level 3 if creating new database, Level 4 if using existing database)
- PKIX infrastructure and standards (Level 2)
- Project Planning (Level 3)
- DB2 (Level 3)
- HTML, JAVA script, C++ (Level 2+)
- Web server (Level 2)
- Trust Authority (Level 2)

Objectives

On completion you will be able to:

- Articulate the capabilities of Trust Authority
- Identify the main components of a Trust Authority system
- Describe Trust Authority architecture
- Plan and implement Trust Authority
- Install and configure Trust Authority
- Use and maintain Trust Authority
- Customize Trust Authority
- Test and Troubleshoot Trust Authority

Course Delivery:

This course has Lecture, hands-on and written exercises

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AD60 - IBM WebSphere Studio Workshop

Course Code: AD60

Duration: 3 Days

Overview:

Learn to design and assemble Web sites. Learn how to build a sample Web site for the fictitious JKToys Toy Company and publish the Web site to a Web server for users to view.

Focus on IBM WebSphere Studio Version 4.0 and related products and topics, including WebSphere Page Designer, Applet Designer, and Web server concepts. Learn how the WebSphere Studio tools interact, when to use each tool, and the key considerations in user friendly Web site design. Advanced topics include how to generate dynamic Web site content and how to utilize the WebSphere Studio wizards. Also, learn how to deploy JavaServer Pages (JSPs), JavaBeans, servlets, and applets from Studio.

Audience:

Individuals who design and assemble Web sites and generate dynamic content.

Prerequisites:

You should have:

- Knowledge of the World Wide Web and the Internet
- Experience creating Web sites, writing Hypertext Transfer Protocol (HTTP), and deploying applets
- Experience with a Web server and a relational database

Objectives:

At the end of this course, users should be able to:

- Design, build, and assemble medium complexity Web sites and e-business applications using the IBM WebSphere Application Server, WebSphere Studio, and related products
- Generate dynamic Web site content
- Deploy JSPs, JavaBeans, servlets, and applets into Web pages

Contents:

- Using the Studio Workbench to manage assets and import Web sites
- Using WebSphere Page Designer (tables and frames, Stylesheet Manager, and Web Art Designer)
- Using Applet Designer
- Launching and using other tools from WebSphere Studio
- WebSphere application model
- The IBM HTTP Server
- Using the Studio wizards to create dynamic content (servlets and JSPs)
- Adding dynamic content through use of JavaBeans
- Deploying the JKToys Web site for the e-business environment
- Introduction to IBM WebSphere Studio

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

AD69 - IBM WebSphere Application Server V3 Advanced Edition Administration Workshop

Course Code: AD69

Duration: 3 Days

Overview:

This course teaches how to install, configure and maintain IBM WebSphere Application Server V3.5 Advanced Edition and how to deploy enterprise Java applications in single machine or clustered configurations. It also covers using WebSphere Site Analyser for content and usage analysis. There are hands-on labs throughout the course.

Audience:

Webmasters and System Administrators who need to install, configure and maintain systems using WebSphere Application Server V3.5 Advanced Edition.

Prerequisites:

Before attending this course, you should have:

- An understanding of the World Wide Web and use of a Web browser
- Basic administration skills for a Web server (for example, Apache or IBM HTTP Server)
- Basic operational skills for the Windows NT operating system

Objectives

At the end of this course, you should be able to:

- Describe the features of WebSphere Application Server
- Install and configure WebSphere Application Server V3.5 Advanced Edition
- Deploy Enterprise Applications
- Configure clustering and security
- Monitor server availability and performance
- Use WebSphere Site Analyser

Contents

WebSphere Introduction
WebSphere Installation
WebSphere Administration
Deploying Applications
Security
Scalable Configurations
Problem Determination
Site Analysis

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

WF30 - Developing ServerSide Applications with IBM WebSphere

Education/Certification Quick Reference Course Descriptions

Course Code: WF30

Duration: 4.5 Days

Overview:

Learn to develop and test server-side applications based on the Java 2 Platform, Enterprise Edition (J2EE) component model, using IBM WebSphere software platform products and tools. Develop and test server-side applications that use servlets and JavaServer Pages (JSPs) for the control and flow of e-business applications.

Develop servlets, JSPs and JavaBeans with IBM WebSphere tools: VisualAge for Java and WebSphere Studio for building servlets and JSPs, the WebSphere Test Environment in VisualAge for Java for unit testing, and the WebSphere Application Server Advanced Edition (WAS-AE) Single Server for integration testing.

Learn the best practices for building J2EE e-business applications, including the use of the Model-View-Controller (MVC) framework to separate concerns among the JavaBeans, JSPs, and servlets in the application, and JUnit for testing the components.

Learn about deployment issues pertinent to the developer. Use WebSphere Application Server, Version 4.0 (Single Server), VisualAge for Java, Version 4.0, and WebSphere Studio, Version 4.0 during the course.

Audience:

Java application developers who build Web-based server-side applications.

Prerequisites:

You should complete:

- Object-Oriented Programming Using VisualAge for Java (OB79) or
- Object Oriented Programming with Java (OB72) or
- Java Programming Using VisualAge for Java (OB77) or
- Java - Programming (OB73)
- Introduction to Server-Side Programming (VJ10A) (online) or on CR-ROMSV31-6774
- Ultimate VisualAge for Java Tutorial CD (SR23-9630)

- or have equivalent skills to develop, test, and deploy Java applications, understand server-side Java applications, and understand the use of the VisualAge for Java Integrated Development Environment (IDE).

Objectives:

After satisfactorily completing this course, you should be able to:

- Describe the J2EE component model and its use in building server-side applications
- Develop, debug, and test server-side applications using IBM WebSphere tools: VisualAge for Java, WebSphere Studio, and WAS-AE Single Server
- Develop and test servlets using IBM WebSphere tools: VisualAge for Java
- Develop and test JSPs using IBM WebSphere tools: WebSphere Studio and VisualAge for Java
- Develop and test JavaBeans using IBM WebSphere tools: VisualAge for Java
- Use JavaBeans, JSPs, and servlets in accordance with the MVC programming model
- Use Java Database Connectivity (JDBC) to access databases in the model application layer
- Use existing Enterprise Java Beans (EJBs) for business logic
- Assemble and perform integration testing of J2EE based applications using the IBM WebSphere tools and WAS-AE Single Server
- Identify the best practices needed to design and build Web applications (application frameworks and design patterns)

Contents:

- Develop and test servlets
- Develop and test JSPs
- Develop and test J2EE based applications using sound application architecture (MVC, JUnit, and scalable architecture)
- Develop and test business logic using JavaBeans and JDBC

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

WF34- Developing EJB's with IBM WebSphere

Course Code: WF34

Duration: 4.5 Days

Overview:

Learn to develop and test Enterprise server-side Java applications. Focus on the business logic of server-side Enterprise applications and in particular the Enterprise JavaBeans (EJB) component of the e-business application. Develop test EJBs with IBM WebSphere software platform tooling (primarily VisualAge for Java). Write EJB clients and invoke EJBs from these clients, both stateless and stateful session EJBs, and both Container Managed Persistence and Bean Managed Persistence entity EJBs. Test EJBs using the WebSphere development platform. Use WebSphere Application Server, Advanced Single Server Edition (Version 4.0) and VisualAge for Java, Enterprise Edition (Version 4.0).

Audience:

Software and application developers with experience in Java and server-side Java (Java 2 Platform, Enterprise Edition (J2EE)) technologies (servlets, JavaServer Pages (JSP), and Java Database Connectivity (JDBC)), who are interested in gaining skills associated with developing EJB-based solutions.

Prerequisites:

You should complete:

- Object Oriented Programming Using VisualAge for Java (OB79) or
- Object Oriented Programming with Java (OB72) or
- Java Programming Using VisualAge for Java (OB77) or
- Java - Programming (OB73)
- Ultimate VisualAge for Java Tutorial CD (SR23-9630) (ISBN: 1931182019)

Education/Certification Quick Reference Course Descriptions

- or have equivalent skills to develop, test, and deploy Java applications using IBM VisualAge for Java and an understanding of server-side Java applications and the use of the VisualAge for Java Integrated Development Environment (IDE).
- You should also have in-depth knowledge of Object-Oriented Programming (OOP).

Objectives:

After satisfactorily completing this course, you should be able to:

- Develop and test session EJBs
- Develop and test entity EJBs
- Develop and test Java-based EJB clients
- Develop and test EJBs to effectively interact and utilise container-provided services
- Assemble J2EE components and applications and perform integration testing
- Develop and test J2EE based applications using sound application architecture:
- Model-View-Controller (MVC), JUnit, and scalable architecture

Contents

Introduction to J2EE server-side component technologies
Introduction to the products and tools used to build and deploy server-side applications: WebSphere software platform, VisualAge for Java WebSphere and EJB tools, and WebSphere Application Server
Introduction to design and best practices, such as the MVC programming model and the command pattern for accessing business logic - EJBs
Building and unit testing the main business logic components using VisualAge for Java
Using EJBs as the business logic
Using EJB clients (servlets, JavaBeans, and other EJBs) to access and interact with the business logic
Using VisualAge for Java to develop EJBs, EJB clients and to unit test the components Persistence, transactions, security considerations, and session management
Mapping from objects to relational domains and JDBC access to databases

Understanding the runtime environment, including WebSphere Application Server EJB facilities
Configuring the runtime environment
Exporting the server-side components
Configuring the server-side components
Using the server-provided support for server-side applications, especially connection pooling

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

WF38 - Administering Enterprise e-Business Applications with WebSphere

Course Code: WF38

Duration: 4.0 Days

Overview:

Learn to install, configure, and maintain IBM WebSphere Application Server Advanced Edition (WAS-AE) and to deploy enterprise Java applications in a single machine or clustered configurations.

Audience:

Administrators who install, configure, and manage Web-based applications on WAS-AE.

Prerequisites

You should be able to use a Web browser, administer a Web (Hypertext Transfer Protocol (HTTP)) server, perform basic administrative tasks on a network operating system (Windows 2000), and describe general WebSphere concepts.

Objectives

After satisfactorily completing this course, you should be able to:

- Describe the Java 2 Platform, Enterprise Edition (J2EE) component model and its use in building server-side applications
- Describe how Web servers and Web application servers work to handle server-side applications

- Install and configure IBM HTTP Server and WAS-AE
- Assemble and deploy server-side Java enterprise application components on WAS-AE: Web resources (such as HTTP pages), JavaServer Pages (JSPs) servlets, JavaBeans, Enterprise JavaBeans (EJB), and connectors
- Use WAS-AE tools (Administrative Console, XMLConfig tool, and WebSphere Control Program) to configure and administer enterprise applications
- Configure security for server-side application resources
- Manage workloads by cloning and distributing applications
- Determine performance problems by monitoring server availability and analysing resources
- Troubleshoot the configuration of an enterprise application
- Understand the products in the WebSphere product family

Contents

WAS-AE architecture
Implementing WAS-AE security
Installing and configuring WAS-AE
Assembling and deploying a Web application
J2EE component model
Managing a WAS-AE environment
WebSphere product family

Course Delivery:

This course is structured in an Instructor-led, Classroom format. Any hands-on sessions form a vital, integral part of the course. [Return to Map](#)

Certification/Education Planner

Candidate Information	Date Plan Initiated:
Name:	Location:
Department:	Manager:

Certification Goals		Target Date: (mm:yy)
1		
2		
3		

Skills Needed	Current Skill Level	Target Skill Level	Target Date:
1			
2			
3			
4			
5			
6			
7			