

IBM Integration Bus

Accessing the Global Cache using a Mapping Node

Featuring:

The REST API tools for IIB Mapping node Cache Transforms

September 2016 Hands-on lab built at product Version 10.0.0.6

1. OBJ	ECTIVES	3
2. PRE	PARE THE IIB NODE	4
2.1 2.2 2.3 2.4	CONFIGURE TESTNODE_IIBUSER FOR REST APPLICATIONS OPEN THE WINDOWS LOG MONITOR FOR IIB CONFIGURE TESTNODE_IIBUSER TO WORK WITH DB2 CONFIGURE TESTNODE_IIBUSER FOR GLOBAL CACHE	4 4 5 6
3. IMP	ORT AND TEST THE PARTIAL SOLUTION	.7
3.1 3.2	IMPORT THE PARTIAL SOLUTION DEPLOY AND TEST THE HR_SERVICE REST API	7 8
4. IMPI	LEMENT THE LOAD CACHE OPERATION1	3
4.1 4.2 4.2.2 4.2.2 4.2.2 4.2.2 4.3	INVESTIGATE THE LOADCACHE SUBFLOW. 1 CONFIGURE THE LOADCACHE MAPPING NODE 1 1 Configure Cache Transforms 1 2 Configure the Cache Put transform. 1 3 Configure the Cache Return transform 1 4 Configure the Cache Failure transform 2 5 Configure the Cache SUBFLOW 2 6 Configure the Cache Failure transform 2 6 Configure the Cache Failure transform 2 7 Configure the Cache Failure transform 2 6 Configure the Cache Failure transform 2 7 Complete THE LOADCACHE SUBFLOW 2	3 6 17 18 20 22 24
5. TES	T THE LOADCACHE OPERATION2	25
6. IMPI	LEMENT THE GET DEPARTMENT CACHE OPERATION2	28
6.1 6.2 6.3 6.3.2 6.3.2 6.3.3	REVIEW THE /DEPARTMENTS/CACHE RESOURCE DEFINITION 2 REVIEW AND COMPLETE THE GETFROMCACHE MAP. 3 CONFIGURE THE CACHE (GET) TRANSFORMS 3 Configure the Cache Get transform 3 Configure the Cache Return transform 3 Configure the Cache Failure transform 3	28 30 32 33 33 40
7. TES	T THE GETFROMCACHE OPERATION4	2
7.1 7.2	TEST THE CACHE GET AND CACHE_RETURN TRANSFORM LOGIC	2 4
END OF	LAB GUIDE4	4

1. Objectives

In this lab, you will implement a REST operation to retrieve data from the Global Cache.

To allow the lab to be completed in the appropriate time, we have provided a REST application that has already implemented the operation to read a database table, and to load the data from the table into the global cache. You will perform the following tasks:

- Import the partially-built REST application
- Investigate the supplied "loadCache" operation
- Configure the IIB node for Global Cache operations
- Deploy and test HR_Service with the supplied "loadCache" operation implemented to obtain data from the DEPARTMENT table in HRDB
- Extend the loadCache operation to add Department Name stored as key/value pairs to the Global Cache using a mapping node.
- Deploy and test HR_Service with the extended loadCache operation so that DEPARTMENT table data is written to the Global Cache
- Create a getFromCache operation to obtain the key/value pair data from the Global Cache.

The following diagram provides a simple outline of the high level components used in this lab guide:



2. Prepare the IIB Node

2.1 Configure TESTNODE_iibuser for REST applications

The IIB support for the REST API requires some special configuration for the IIB node and server. If you have already done the REST API lab in this series of labs, you can proceed straight to the next section.

In Windows, switch user and log in as "iibuser", password = "passw0rd".

Start the IIB Toolkit from the Start menu.

1. Ensure that TESTNODE_iibuser is started.

2. Enable Cross-Origin Resource Scripting for REST. This is required when testing with the SwaggerUI test tool. See <u>http://en.wikipedia.org/wiki/Cross-origin_resource_sharing</u> for further information.

(Helpful hint - the VM keyboard is set to UK English. if you cannot find the "\" with your keyboard, use "cd ..." to move to a higher-level folder in a DOS window).

In an IIB Command Console (shortcut on the Start menu), run the command:

```
mqsichangeproperties TESTNODE_iibuser -e default
    -o HTTPConnector
    -n corsEnabled -v true
```

2.2 Open the Windows Log Monitor for IIB

A useful tool for IIB development on Windows is the IIB Log Viewer. This tool continuously monitors the Windows Event Log, and all messages from the log are displayed immediately.

From the Start menu, click IIB Event Log Monitor. The Monitor will open; it is useful to have this always open in the background.

IIB Event Log Monitor	x
BIP3132I: (IB10NODE.server1) The HTTP Listener has started listening on port '	
RIP21541: (IRIGNONE sequent) Execution group finished with Configuration messa	
re. [10/3/2014 3:17:24 PM]	
BIP21521: (IB10NODE.server1) Configuration message received from broker. [10/3	
/2014 5:07:36 PM]	
BIP2153I: < IB10NODE.server1 > About to ''Change'' an execution group. [10/3/201	
4 5:07:36 PM]	
BIP2155I: < IB10NODE.server1 > About tocreate the deployed resource '`Empl	
oyeeService_JSONClient'' of type ''.APPZIP''. [10/3/2014 5:07:37 PM]	
BIP2155I: (IB10NODE server1) About to ''create '' the deployed resource ''gen.	
getEmployee_EmployeeService_EmpServClient_JSON1'' of type ''.SUBFLOW''. [10/3/20	
14 5:07:37 PMJ	
BIP21551: (IBIØNUDE.server1) Hobut to 'create'' the deployed resource ''EmpS	
eroclient_JSONI of type MSGrLOW [10/3/2014 5:07:37 PM]	
BIP21541: (IBIDNUDE.server1) Execution group finished with Configuration messa	
ge. [10/3/2014 5:07:43 Pm]	
BIP31321: (IBIØNOUE.HIIPListener) The HIIP Listener has started listening on p	
ort (17080) for (thttp://connections. L10/3/2014 5:07:47 PM]	
BIP21521: (IB10NODE.server1) Configuration message received from broker. [10/3	
/2014_5:50:41_PM]	
BIP21531: (IB10NODE.server1) About to ''Change'' an execution group. [10/3/201	
4 5:50:41 PM]	
BIP21551: (IB10NODE.server1) About to ''delete '' the deployed resource ''EmpS	

This tool is not shipped as part of the IIB product; please contact us directly if you would like a copy.

2.3 Configure TESTNODE_iibuser to work with DB2

If you have already done Lab 1 in this series (create a REST API without an Swagger.json file), you can skip to the next page.

To run this lab, the Integration Bus node must be enabled to allow a JDBC connection to the HRDB database.

1.	Open an IIB Command Console (from the Start menu), and navigate to
	c:\student10\Create_HR_database
2.	Run the command:
	3_Create_JDBC_for_HRDB
	Accept the defaults presented in the script. This will create the required JDBC configurable service for the HRDB database.
3.	Run the command:
	4_Create_HRDB_SecurityID
4.	To enable the above definitions to be activated a Stop and restart of the will need to be performed – you will do this in the next section

This will create the necessary security credentials enabling TESTNODE_iibuser to connect to the database.

2.4 Configure TESTNODE_iibuser for Global Cache

1.	In an IIB Command Console, run the commands
	mqsistop TESTNODE_iibuser
	mqsichangebroker TESTNODE_iibuser -b default
	mqsistart TESTNODE iibuser
2.	Check the current state of the global caches maps by running the command
	mqsicacheadmin TESTNODE_iibuser -c showMapSizes
	The output of this command will be similar to below, and will show that the global cache has no user data entries, and just contains the default cache maps.
	IBM Integration Console 10.0.0.6
	BIP7187I: Output from the mqsicacheadmin command. The output from the WebSphere eXtreme Scale xscmd utility is ' Starting at: 2016-09-23 14:11:02.556 CWXSI0068I: Executing command: showMapSizes *** Displaying results for WMB data grid and mapSet map set. *** Listing maps for TESTNODE_iibuser_192.168.52.129_2800 *** Map Name Partition Map Entries Used Bytes Shard Type Container
	SYSTEM.BROKER.CACHE.CLIENTS 41640 BPrimaryTESTNODE_iibuser_192.168.52.129_2800_C-1SYSTEM.BROKER.CACHE.SERVERS 41656 BPrimaryTESTNODE_iibuser_192.168.52.129_2800_C-1Server total: 2 (1 KB)
	Total catalog service domain count: 2 (1 KB) (The used bytes statistics are accurate only when you are using simple objects or the COPY_TO_BYTES copy mode.)
	CWXSI0040I: The showMapSizes command completed successfully.
	Ending at: 2016-09-23 14:11:04.085
	BIP8071I: Successful command completion.
	C:\IBM\IIB\10.0.0.6>
	Leave this console open you will be using it later in the lab guide.
	Note that the only maps available are the system defaults, each of which currently has 1 entry.

3. Import and test the partial solution

3.1 Import the partial solution

1.	To avoid Toolkit workspace conflicts, create a new IIB workspace.
	If you already have a workspace open, click File, Switch Workspace. Give the new workspace the name
	c:\Workspaces\Cache
2.	In the Application Development window, right-click in an open area (on the white background), and select Import.
3.	Select the Project Interchange file
	c:\student10 \ Global_Cache_Mapping \ resources \ HR_Service_Cache_StartingPoint.V10.0.0.6.zip
	This PI file contains three projects. Ensure all projects are selected, and click Finish to import them.
	Import Project Interchange Contents
	Import Projects Import Projects from a zip file.
	From zip file: C:\student10\Global_Cache_Mapping\resources\HR_Service_Cache_StartingPoint.V10.0.0.6.zip Browse
	Project location root: C:\workspaces\Cache Browse
	☑ ☺ HRDB I ☺ HRDB project
	₩ #R_Service
	Select All Deselect All Select Referenced
	Image: Second
	HRDB and HRDB_project contain database definitions for the HRDB database.
	HR_Service is the partially implemented REST API that you will configure to add DEPARTMENT information to the Global Cache.

3.2 Deploy and test the HR_Service REST API

In this section you will deploy and test the HR_Service REST API to ensure it works successfully before you implement adding data from the DEPARTMENT table to the Cache.





						Welcome, default 👻	
	HR_Servic	e - REST API					
	Overview	API 📐 Statistic	s				
						Expand all Colla	pse
RE	ST API Base URI ST API Definition	ttp://betawor	ks-esb10:7800 ks-esb10:7800	D/HRDB_RE	ESTService ESTService Open L Open L Open L	es/resources es/resources/swaaaer Link in New <u>T</u> ab Link in New <u>W</u> indow Link in New <u>P</u> rivate Winc	iso: dow
\ll	► POST	insertDepartment	t Insert a dep	artment	Bookm Save Li	ark This <u>L</u> ink ink As	
	▶ GET	retrieveDepartme	ent Retrieve	departments	Save Li Copy L Search	ink t <u>o</u> Pocket ink Loc <u>a</u> tion	awor
					Inspec	t Element (Q)	
Switch b	swagg	aggerUI tool, paste E r tp://betaworks-e	e the value i	nto the UF	RL field a	and press Enter: ervices/resources	s
Switch t	swagg	aggerUI tool, paste 2 ľ tp://betaworks-e	e the value i esb10:780	nto the UF	RESTSe	and press Enter: ervices/resources	\$
Switch t	oack in the Swa SWagg (ht own to the para	aggerUI tool, paste 2 	e the value i esb10:780	nto the UF	RL field a	and press Enter: ervices/resources	5)
Switch to Switch to Scroll do Click the Of the bo	oack in the Swa SWagg ht own to the para e yellow backg ody parameter e "Try it Out" bu	aggerUI tool, paste	e the value i esb10:780	o copy the	RESTSe	and press Enter: ervices/resources	
Switch to Switch to Scroll do Click the of the bo Click the Parame	oack in the Swa SWagg (ht own to the para e yellow backg ody parameter e "Try it Out" bu	aggerUI tool, paste	e the value i esb10:780	o copy the	RESTSe RESTSe required	and press Enter: ervices/resources	s
Switch to Switch to Generation Scroll do Click the of the bo Click the Parameter body	oack in the Swa SWagg (ht own to the para e yellow backg ody parameter e "Try it Out" bu iters er Value	aggerUI tool, paste	e the value i esb10:780	nto the UF 0/HRDB_ 0 copy the Description	RESTSe RESTSe required	and press Enter: ervices/resources d fields into the valu Data Type	s) ue
Switch to Switch to Group of the boo Click the of the boo Click the Parameter body	oack in the Swa SWagg (ht own to the para e yellow backg ody parameter e "Try it Out" bu tters er Value { "DEPTN "DEPTN "MGRNO "ADMRD "LOCAT: } Parameter of	aggerUI tool, paste	e the value i esb10:780	nto the UF 0/HRDB_ 0 copy the Description The request body for the operation	RESTSe RESTSe required	and press Enter: ervices/resources d fields into the valu Data Type Model Model Schema { DepTNO": "string", "DEPTNO": "string", "ADMRDEPT": "string "LOCATION": "string	sy)

Try it ou	t! <u>Hide Response</u>
Request	URL
http://l	ocalhost:7800/HRDB_RESTServices/resources/departments/cache
Respons	e Body
{	
"DBRe	esp": {
"Ro	wsRetrieved": 16
},	
"Depa	artment": [
{	
	'DEPTNO": "A00",
	DEPTNAME": "SPIFFY COMPUTER SERVICE DIV.",
	'MGRNO": "000010",
	ADMRDEPT": "A00",
	'LOCATION": null
},	

	nsole, issi	ue the comr	mand		
mqsica	acheadm	in TESTNO	DDE_iibu	iser -c s	showMapSizes
The output of this comm no user data entries, an name "SYSTEM.BROK	nand will I d just cor ER.DEFA	be similar to ntains the do NULTMAP".	o below, a efault cac	nd will sho he maps. T	w that the global cache ha There is no map with the
IBM Integration Console 1	0.0.0.6				
C:\IBM\IIB\10.0.0.6>mqsica BIP7187I: Output from the utility is ' Starting at: 2016-09-23 14	cheadmin T mqsicachea :11:02.556	ESTNODE_iibus dmin command.	ser -c show . The outpu	MapSizes t from the W	ebSphere eXtreme Scale xscmd
CWXSI0068I: Executing comm	and: showM	apSizes			
*** Displaying results for	WMB data	grid and maps	Set map set		
*** Listing maps for TESTN Map Name	ODE_iibuse Partitio	r_192.168.52. n Map Entries	.129_2800 × s Used Byte	** s Shard Type	Container
SYSTEM. BROKER. CACHE. CLIENT	s 4	1	640 B	Primary	TESTNODE_iibuser_192.168.52.
SYSTEM.BROKER.CACHE.SERUER 129_2800_C-1 Server total: 2 (1 KB)	S 4	1	656 B	Primary	TESTNODE_iibuser_192.168.52.
Total catalog service doma (The used bytes statistics copy mode.)	in count: are accur	2 (1 KB) ate only wher	n you are u	sing simple	objects or the COPY_TO_BYTES
	es command	completed su	uccessfully		
CWXSI00401: The showMapSiz					
Ending at: 2016-09-23 14:1	1:04.085				
Emaing at: 2016-09-23 14:1 BIP8071I: Successful comma	1:04.085 nd complet	ion.			

4. Implement the Load Cache operation

You will now extend the loadCache operation to add the rows returned from the DEPARTMENT table (by the SmartRetrieve map) into the Global Cache. Earlier, you activated the Global Cache for the TESTNODE_iibuser node; this scenario will use all of the supplied defaults for the global cache, such as cache grid name, map name, and time to live.

4.1 Investigate the loadCache subflow



■ HR	Service 🛛	
-	Resources	
	/departments	
	 /departments/cache 	
	GET getFromCache	
	Name Parameter typ Data type Format Required	Descr
	departmentKey query 🗸 string 🗸	Key to
	Response stat Description	
	200 The operation was successful.	
	POST loadCache	
	Name Parameter typ Data type Format Required	Descr
	departmentKey query 💌 string 💌	
	Request body Schem	a type
	The request body for the operation DEPAR	
have		
In the	padCache operation click the " open the subflow for the operation " butto	n:
<u>~~</u>		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
{		
<u>}</u>	\square	
T tabl		

4.	You will see the f	ollowing subflow:	
	HR_Service	💷 loadCache.sub	flow 🛛
	Flow Exe	rciser: 🖻 🖩 💈	●
	Input		Output
	SmartR	etrieveMan-Reused	loadcache
	Graph User Do	fined Dronerties	
		inied Properties	{
5.	(Single Click) the node (properties	SmartRetrieveMap- tab).	Reused mapping node and view the properties for this
	Note that this not (<i>retrieveDepartr</i> RESP API withou	de has been configiu nent_SmartRetrieve it and existing swagg	red to reuse the mapping node e) that was created in Lab 1 of this series (Creating a ger.json file).
	When the map is DEPARTMENT t the Global Cache section you will c retrieveDepartm	passed a departmer able. This is exactly e. To preserve the ex onfigire a separate m ent_SmartRetrieve	ntKey with no data, it will retrieve all data in the what we want in order to add DEPARTMENT data to isting function instead of modifying this map, in the nap that will process the response data from the map and add it to the global cache.
	■ Properties ¤	🕄 Problems 🗄 Ou	utline 🖉 Tasks 🎟 Deployment Log 喝 Progress
	- Mapping	Node Proper	ties - SmartRetrieveMap-Reused
	Description		
	Basic	Mapping routine*	{default}:retrieveDepartment_SmartRetrieve
	Validation	Transaction*	Automatic
	Monitoring		
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

### 4.2 Configure the loadcache mapping node

Expand [.]				
Елрапа.				
1) the legut	moccoado occombly	until vou coo th	o orrow Itom with	
		unun you see un	e allay itelii with	
(the array	or department data	a obtained from	ine Smarikeireive	map).
2) The Outp	ut Message Assem	bly until you see	the Item array ele	ement with a type of
"Departm	nentCPutLineItem"			
The loadCache	e map will look like	this:		
🖻 loadCache				
•loadCache 🔑 🧶	😵 🌮   😫 🤜 🗶   🔍 🔍 🔍 🚳	10  🖩 🏭 🛱 🐐 🗐 😂		
- 🖆 Message Assembly	JSON		Message Assembly	JSON
Click to filter>			Click to filter>	
🖩 🐙 Properties	[01] PropertiesType	Move -	🗉 🖉 Properties	[01] PropertiesType
🗉 🐙 JSON	[11] JSONMsgType	(	B 🖉 JSON	[11] JSONMsgType
Padding	[01] string		Padding	[01] string
💷 🕼 Data	[11] DepartmentResponse		Consta	[11] DepartmentCachePutResponse
BResp	[01] DBRESP		DBResp      DonartmontCoutLing	[0.1] DBRESP
Department	[01] JSONArray_Department	-		[0 *] Department/PutLineItem
I tem	[0*] DEPARTMENT			[on ] beparamenter adementerin
		$\sim$		
	~~~~~~			
· · · · · · · · · · · · · · · · · · ·				

	- Databasa salla in			-latal-as a status
There will be n	no Database calls ir	n this map so we	want to pass the	database status
There will be n response from	no Database calls ir I the SmartRetrieve	n this map so we map in the resp	want to pass the onse "as is".	database status
There will be n response from	no Database calls ir he SmartRetrieve	n this map so we map in the resp	want to pass the onse "as is".	database status
There will be n response from	the SmartRetrieve	n this map so we map in the resp	want to pass the onse "as is".	database status
There will be n response from Connect DBRE	no Database calls ir the SmartRetrieve ESP on the input M	n this map so we map in the resp essage Assemb	want to pass the onse "as is". ly to DBRESP on	database status the output Message
There will be n response from Connect DBRE Assembly.	no Database calls ir the SmartRetrieve ESP on the input M	n this map so we map in the resp essage Assemb	want to pass the onse "as is". ly to DBRESP on	database status the output Message
There will be n response from Connect DBRE Assembly.	no Database calls ir the SmartRetrieve ESP on the input M	n this map so we map in the resp essage Assemb	want to pass the onse "as is". ly to DBRESP on	database status the output Message
There will be n response from Connect DBRE Assembly.	no Database calls ir the SmartRetrieve ESP on the input M	n this map so we map in the resp essage Assemb	want to pass the onse "as is". ly to DBRESP on	database status the output Message
There will be n response from Connect DBRE Assembly. This will create	no Database calls ir the SmartRetrieve ESP on the input M e a move operation	n this map so we map in the resp essage Assemb between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be n response from Connect DBRE Assembly. This will create	no Database calls ir the SmartRetrieve ESP on the input M e a move operation	n this map so we map in the resp essage Assemb between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be n response from Connect DBRE Assembly. This will create	no Database calls ir the SmartRetrieve ESP on the input M e a move operation	n this map so we map in the resp essage Assemb between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be n response from Connect DBRE Assembly. This will create	The Database calls in the SmartRetrieve	n this map so we map in the resp essage Assemb between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be r response from Connect DBRE Assembly. This will create	The Database calls in the SmartRetrieve ESP on the input M e a move operation	n this map so we map in the resp essage Assemb between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be r response from Connect DBRE Assembly. This will create	The Database calls in the SmartRetrieve ESP on the input M e a move operation	n this map so we map in the resp essage Assemb between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be r response from Connect DBRE Assembly. This will create	The Database calls in the SmartRetrieve ESP on the input M a move operation	this map so we map in the resp essage Assemb between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message
There will be r response from Connect DBRE Assembly. This will create	To Database calls in the SmartRetrieve ESP on the input M a move operation	this map so we map in the resp essage Assemb between the two between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message JSON [0.1] PropertiesType
There will be r response from Connect DBRE Assembly. This will create	To Database calls in the SmartRetrieve ESP on the input M e a move operation a move operation [0.1] PropertiesType [1.1] JSONMsgType	this map so we map in the resp essage Assemb between the two between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message JSON [0.1] PropertiesType [1.1] JSONMsgType [0.1] string
There will be r response from Connect DBRE Assembly. This will create	To Database calls in the SmartRetrieve ESP on the input M e a move operation a move operation JSON [0.1] PropertiesType [1.1] JSONMsgType [0.1] string	this map so we map in the resp essage Assemb between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message JSON [0.1] PropertiesType [1.1] JSONMsgType [0.1] string
There will be r response from Connect DBRE Assembly. This will create loadCache loadCa	To Database calls in the SmartRetrieve ESP on the input M e a move operation a move operation JSON [0.1] PropertiesType [11] JSONMsgType [0.1] string [11] DepartmentResponse [1.1] DepartmentResponse	this map so we map in the resp essage Assemb between the two between the two mage of the two between the two	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message JSON [01] PropertiesType [11] JSONMsgType [01] string [11] DepartmentCachePutResponse
There will be r response from Connect DBRE Assembly. This will create loadCache loadCa	The SmartRetrieve ESP on the input M a move operation a move operation a move operation a move operation a move operation (0.11) PropertiesType [1.11] JSONMsgType [0.1] string [1.11] DepartmentResponse [0.1] DBRESP	this map so we map in the resp essage Assemb between the two between the two mage of two two two mage of two mage of the two mage of two two mage of two mage	want to pass the onse "as is". ly to DBRESP on o elements:	database status the output Message JSON [0.1] PropertiesType [1.1] JSONMsgType [0.1] string [1.1] DepartmentCachePutResponse [0.1] JSONMray DepartmentCPutI ine
There will be r response from Connect DBRE Assembly. This will create loadCache loadCa	The Database calls in the SmartRetrieve ESP on the input M ESP on the input M a move operation Image:	this map so we map in the resp essage Assemb between the two between the two between the two	want to pass the onse "as is". ly to DBRESP on o elements: c is Message Assembly s <click filter="" to=""> e @ Properties e @ JSON @ Padding e @ Data @ @ DBResp e @ DBResp e @ DepartmentCPutLine e @ Item</click>	database status the output Message JSON [0.1] PropertiesType [1.1] JSONMsgType [0.1] string [1.1] DepartmentCachePutResponse [0.1] DBRESP [0.1] JSONArray_DepartmentCPutLineItem

3. The data we need to add to the cache is stored in the input Message Assembly in the Department Array. In the input Message Assembly connect the Item array (of type DEPARTMENT) to the Item array in the output Message Assembly (of type DepartmentCPutLineItem). This will create a "For each" transform: IoadCache -loadCache 🖉 🖉 🗿 🐊 💷 💷 🖉 🗶 🖓 🖏 🖥 📾 📾 💭 🖾 Message Assembly JSON 🗉 🖼 Message Assembly JSON ⇒ <Click to filter...> ⇒ <Click to filter...> 🗎 Move 👻 🗉 🛃 Properties [0..1] PropertiesType 🗉 🖉 Properties [0..1] PropertiesType 🗉 🗬 JSON [1..1] JSONMsgType 🗉 🐙 JSON [1..1] JSONMsgType Padding [0..1] string Padding [0..1] string 🗉 🖲 Data [1..1] DepartmentCachePutResponse 🗉 🕼 Data [1..1] DepartmentResponse 🗎 Move 🔹 [0..1] DBRESP ■
 ■
 DBResp [0..1] DBRESP DepartmentCPutLine
 [0..1] JSONArray_DepartmentCPutLine [0..1] JSONArray_Department Department 🗉 🗉 Item [0..*] DepartmentCPutLineItem 🐚 <u>For each</u> – 🌱 [0..*] DEPARTMENT 🗉 🗈 Item

4.2.1 Configure Cache Transforms

In this section you will configure the Cache transforms that will:

- a) Add the data to the cache using the Cache Put transform.
- b) Process returned data using the Cache Return transform
- c) Process what to do in the event of a failure response from the Cache using the <u>Cache Failure</u> transform.

	~					
-loadCache 👂 🖗	<u> </u> (목 X 예 예 ፎ ፎ) 🐮 🐮 🖩 🔚 🛍 📽				
		ut key-value pair to cac	he	企		
🗆 🔁 Item	DEPARTMENT	at key value pair to cae	B 🖪 Item	D	epartmentCPutL	ineIterr
Section Section Section 2 Sectio			Click to filter>			
C DEPTNO [0)1] <string></string>		🗉 🖻 CacheResp	[01] C/	ACHERESP	
DEPTNAME [0)1] <string></string>		🗉 🖻 Department	[01] D	EPARTMENT	
MGRNO [0).11 <string></string>	man				
This will add a <u>Car</u> Click the blue box Click the "Process	che Put transform to of the Cache Put tra the return from cach	the map. Ansform and ho he operation" ic	ver over the b	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > Iter	che Put transform to of the Cache Put tra the return from cach	the map.	ver over the b	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > R Iter -loadCache	che Put transform to of the Cache Put tra the return from cacl	the map.	ver over the b con:	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > © Iter -loadCache	che Put transform to of the Cache Put tra the return from cacl	the map. Ansform and ho he operation" ic ansignment of the operation of th	ver over the b con: m m m m m i	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > © Iter -loadCache	che Put transform to of the Cache Put tra the return from cacl m P & A A I P P X A	the map. Ansform and ho he operation" ic an and ho he operation ic an an and ho he operation ic an an a	ver over the b con:	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > © Iter -loadCache	che Put transform to of the Cache Put tra the return from cacl m P & M M M X P DEPARTMENT	the map. Ansform and ho he operation" ic S & & & = Cache	ver over the b con: m m m m m m Process the return * <c< td=""><td>ox until</td><td>two icons</td><td>appe</td></c<>	ox until	two icons	appe
This will add a <u>Car</u> Click the blue box Click the "Process loadCache > @ Iten -loadCache	che Put transform to of the Cache Put tra the return from cacl m P 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	the map. Ansform and ho he operation" ic all the the constant all the the the the the the the the the the the the the the the	ver over the b con:	ox until	two icons	
This will add a <u>Car</u> Click the blue box Click the "Process loadCache * & Iten -loadCache * Click to filter> @ DEPTNO @ DEPTNAME	che Put transform to of the Cache Put tra the return from cacl m DEPARTMENT [01] <string> [01] <string></string></string>	the map. Ansform and ho he operation" ic all a a a b a a b a b a b a b a b a b a b a	ver over the b con:	ox until	two icons	
This will add a <u>Car</u> Click the blue box Click the "Process loadCache ^{>} [©] Iten -loadCache ^{>} [©] Iten [*] - Click to filter> [©] DEPTNO [©] DEPTNAME [©] MGRNO	che Put transform to of the Cache Put tra the return from cacl m DEPARTMENT [01] <string> [01] <string> [01] <string></string></string></string>	the map. Ansform and ho he operation" ic all the the constant all the the the the the the constant all the	ver over the b con:	ox until	two icons	appe Depa CACH DEPA



4.2.2 Configure the Cache Put transform

In this next section you configure the Cache Put transform. This is the transform that will add the Department data (retrieved from the HRDB database) to the Cache.

[≧] loadCache 🎽 🖳 Item			
•loadCache 👘 ↓	≩ X 41 (4) (6) 66 (4)	> \$\$ 🕉 🐌 🏷 🎟 🏭 🖼 🏭 🖡	
⊡ 12 Item	DEPARTMENT	Cache Put - * Cache Return - * Cache Failure - *	

Î	Click the Cache Put text to enter the nested ma	hap for the <u>Cache Put</u> transform:	
	Cache Cache	che Put - * e Curn - * e Failure - *	
	In the CachePut element Connect		
	 Item.DEPTNO to CachePut.Key Item.DEPTNAME to CachePut.Value (in the second second	(ignore the Cast Assist prompt)	
	🖻 loadCache 🎽 🖳 Item 🎽 🖳 CachePut		
	-loadCache 刷 刷 刷 刷 刷 用 第 章 章 敬 敬 敬 []	🎟 🐜 🏗 🖓 🛲 📴	
		Ê	
	□ 11 Item DEPARTMENT	CachePut <anonymous></anonymous>	
	Click to filter>	* <click filter="" to=""></click>	
	DEPTNO [0.1] <string> Mov</string>	ve Value [11] anysimpletype	_
	MGRNO [0.1] <string></string>	MapName [01] string	
	ADMRDEPT [01] <string></string>	CacheName [01] string	
		TimeToLive [01] int	
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to " Insert or update and entry in the cache ":	s level.	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache":	s level.	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache":	s level.	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": loadCache > Item	s level. form and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache":	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": loadCache > Item -loadCache > Item DEPARTMENT	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": IcadCache Item IcadCache Item DEPARTMENT IcadCache Item DEPARTMENT	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": I loadCache I lo	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": IoadCache Item IoadCache Item DEPARTMENT Click to filter> DEPTNO [01] <string></string>	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": Image: Item i	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": IoadCache Item IoadCache Item DEPARTMENT Click to filter> DEPTNO [01] <string> Insert or update and entry in the cache are are are are are are are are are ar</string>	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": Image: Item i	s level. The properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": Image: Item	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": I loadCache I ltem I ltem I loadCache I ltem I ltem I loadCache I ltem I	s level. The properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": I loadCache I lem I le	s level. The manual change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache": I loadCache I lem I lem I loadCache I lem I le	s level. orm and change the properties of the trans	sfo
	Click the Yellow arrow to return to the previous Highlight the blue box of the <u>Cache Put</u> transfo to "Insert or update and entry in the cache":	s level. orm and change the properties of the trans	sfo

4.2.3 Configure the Cache Return transform

In this next section you configure the Cache Return transform. When used in conjunction with a Cache Put transform the Cache Return transform provides the number of entries added to the cache.

,		
🖻 loadCache 🎽 🖳 Ite	m	
✓loadCache	X 4 4 € € 4	
Itom	DEDADTMENT	Cache Put - Cache Cache Ca
⊑ @ Item	DEPARTMENT	Cache Eailure *
		Bepartment [01] DEPARTMENT
Click to filter>		
DEPTNO	[01] <string></string>	
	[0.1] <string></string>	
	[0.1] <string></string>	
	[0.1] <string></string>	
LOCATION	[01] Souring>	
Connect the fo 1) Cach 2) Item.I 3) Item.I	ollowing: ePutReturn. Cou DEPTNO to Dep DEPTNAME to I	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME
Connect the fo 1) Cach 2) Item.[3) Item.[ePutReturn.Con EPTNO to Dep DEPTNAME to I	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME
Connect the fo 1) Cach 2) Item.E 3) Item.E ioadCache ^{>} ℝ Ite	ePutReturn. Com EPTNO to Dep DEPTNAME to I	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.E 3) Item.E loadCache > © Itte Ited ItedCache	ePutReturn.Cou DEPTNO to Dep DEPTNAME to I m > @	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.[3) Item.[loadCache > ® Ite -loadCache > ® Ite	ePutReturn.Cou DEPTNO to Dep DEPTNAME to Dep DEPTNAME to D	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.[3) Item.[loadCache > © Ite -loadCache	ePutReturn.Con DEPTNO to Dep DEPTNAME to D m > = m > = M > = M = M = M = M = M = M = M = M = M	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME P 응 ③ ⑤ ⑤ 圖 圖 圖 圖 圖 圖 Image: Second Resp CachERESP
Connect the for 1) Cach 2) Item.E 3) Item.E ioadCache ^{>} Ite IoadCache ^{>} CachePutReturn CachePutReturn CachePutReturn CachePutReturn	ePutReturn.Con DEPTNO to Dep DEPTNAME to D m > = 	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.[3) Item.[3) Item.[IoadCache > Ite IoadCache > Ite CachePutReturn Click to filter> Count	ePutReturn.Com ePutReturn.Com DEPTNO to Dep DEPTNAME to I m > @ (Anonymous) (11) int	unt to CacheResp.EntriesAdded partment.DEPTNO Department.DEPTNAME Image:
Connect the for 1) Cach 2) Item.E 3) Item.E ioadCache is Ite -loadCache is CachePutReturn	ePutReturn.Com ePutReturn.Com DEPTNO to Dep DEPTNAME to I m > @ Anonymous> [11] int DEPAPTMENT	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: I
Connect the for 1) Cach 2) Item.E 3) Item.E ioadCache > @ Ite -loadCache > CachePutReturn CachePutRetur	ePutReturn. Cou DEPTNO to Dep DEPTNAME to D m > @ 	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: I
Connect the for 1) Cach 2) Item.E 3) Item.E ioadCache > 3 Ite IoadCache > 3 Ite CachePutReturn Click to filter> Count 10 CachePutReturn Count 10 CachePutReturn 10 CacheP	ePutReturn. Con DEPTNO to Dep DEPTNAME to I m > = (11] int (11] int (11] int (11] int	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: I
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E IoadCache > © Ite IoadCache > CachePutReturn Count	ePutReturn.Com DEPTNO to Dep DEPTNAME to I m > @ (Anonymous) [11] int DEPARTMENT [01] <string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: I
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E loadCache > @ Ite -loadCache > CachePutReturn Click to filter> © Count © Click to filter> © DEPTNO © DEPTNAME	ePutReturn. Cou DEPTNO to Dep DEPTNAME to I m > @ (Anonymous) [11] int [01] <string> [01] <string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: I
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E loadCache > @ Ite loadCache > @ Ite click to filter> @ Count > Click to filter> @ DEPTNO @ DEPTNAME @ MGRNO	ePutReturn. Con DEPTNO to Dep DEPTNAME to I m > = (11] int [01] <string> [01] <string> [01] <string> [01] <string></string></string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image:
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E loadCache > @ Ite loadCache > @ Ite click to filter> @ Count > Click to filter> @ DEPTNO @ DEPTNAME @ MGRNO @ ADMRDEPT	ePutReturn. Con DEPTNO to Dep DEPTNAME to I m Contemporation of the second m Contemporation o	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image:
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E IoadCache > @ Ite IoadCache > CachePutReturn Count	ePutReturn. Cor DEPTNO to Dep DEPTNAME to I (11] int (01] <string> (01] <string) (01] <string)< td=""><td>unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: Image:</td></string)<></string) </string) </string) </string) </string) </string) </string) </string) </string) </string) </string) </string) </string) </string) </string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image:
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E ioadCache > @ Ite IoadCache > @ Ite Count Cou	ePutReturn. Cor DEPTNO to Dep DEPTNAME to I (11] int (01] <string> (01] <string) (01] <string) (01] <string) (01] <string) (01] <string) (01] <string)< td=""><td>unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: Image:</td></string)<></string) </string) </string) </string) </string) </string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image:
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E ioadCache > © Ite IoadCache > © Ite Count Cou	ePutReturn. Cor DEPTNO to Dep DEPTNAME to I (0.11 string> (0.11 string) (0.11 string) (0.1	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E ioadCache > © Ite IoadCache > © Ite Count Cou	ePutReturn. Cor DEPTNO to Dep DEPTNAME to I (1.1] int (0.1] <string> (0.1] <string) (0.1] <string) (0.1] <string) (0.1] <string) (0.1] <string) (0.1</string) </string) </string) </string) </string) </string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME
Connect the for 1) Cach 2) Item.E 3) Item.E 3) Item.E ioadCache > © Ite -loadCache > © Ite -loadCache / / Count	ePutReturn. Cor DEPTNO to Dep DEPTNAME to I Construction (11] int (01] <string> (01] <string> (01] <string> (01] <string> (01] <string> (01] <string></string></string></string></string></string></string>	unt to CacheResp.EntriesAdded bartment.DEPTNO Department.DEPTNAME Image: Strate

斉 🍄 🐌 🐌 🎟 🌆 🖼 🏭				
4		\Leftrightarrow	Undo Delete transform	
}			Redo	
{	🗉 🖳 CacheResp		Revert	
}	Section 4 States and a section of the section o	-	Cut	ChrLLV
Move -	e ReturnCode		Conv	Ctrl+C
	EntriesAdded	45	Paste	Ctrl+V
	EntriesRemove	e —	1 4000	541.7
	EntriesRetriev	e	Delete	
} ■ Move ▼	ERROR_ID	ī	Open Information Popup	Ctrl+Shift+I
Move -	ERROR_Messa	aç 🗌	Open Declaration	F3
4		s		
}		8	Cast	
}	Department	- -	Add Connection	
}		- 📮	Auto Map	
{		_	Quick Link from Input	Ctrl+L
{	DEPINAME	æ	Add Assign	
{	■ MGRNO	-	Database	
\$	ADMRDEPT	_	Cache	
hannan	<u>e LOCATION</u>	, -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
This will add an Assign tr	ansform to the Cache	Re	sp.ReturnCode element:	
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge	eRe ene	sp.ReturnCode element: ral tab in Properties):	
This will add an Assign tr Check that the Value is s	ansform to the Cache	Re	sp.ReturnCode element: ral tab in Properties):	
This will add an Assign tr Check that the Value is s loadCache > Item > = -loadCache > Item > =	ansform to the Cache et to 0 (zero in the Ge 	eRe ene	sp.ReturnCode element: ral tab in Properties):	
This will add an Assign tr Check that the Value is s loadCache > Item > = loadCache > Item > =	ansform to the Cache et to 0 (zero in the Ge 	enei	sp.ReturnCode element: ral tab in Properties):	£
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge 	ener	sp.ReturnCode element: ral tab in Properties):	ि CACHER
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge		sp.ReturnCode element: ral tab in Properties):	CACHER
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge	eRes enel 10ve v	sp.ReturnCode element: ral tab in Properties):	CACHEF [01] <intege [01] <intege< td=""></intege<></intege
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge	ener ener I I I I I I I I I I I I I I I I I I I	sp.ReturnCode element: ral tab in Properties):	CACHEF [0.1] <intege [0.1] <intege [0.1] <intege [0.1] <intege< td=""></intege<></intege </intege </intege
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge	PRe: enel 10ve ×	sp.ReturnCode element: ral tab in Properties):	CACHEF [01] <intege [01] <intege i [01] <intege d [01] <intege< td=""></intege<></intege </intege </intege
This will add an Assign tr Check that the Value is s	ansform to the Cache et to 0 (zero in the Ge w w x 2 2 3 3 5 5 Anonymous>	eResearch	sp.ReturnCode element: ral tab in Properties):	CACHEF [01] <intege [01] <intege [01] <intege [01] <intege [01] <intege< td=""></intege<></intege </intege </intege </intege
This will add an Assign tr Check that the Value is s Check that the Value is s loadCache Item Item CachePutRetum CachePut	ansform to the Cache et to 0 (zero in the Ge	PRe enel	sp.ReturnCode element: ral tab in Properties):	CACHEF [0.1] <intege [0.1] <intege [0.1] <intege [0.1] <intege [0.1] <intege< td=""></intege<></intege </intege </intege </intege
This will add an Assign tr Check that the Value is s Check that the Value is s loadCache Item Check CachePutReturn Check Cache CachePutReturn Check	ansform to the Cache et to 0 (zero in the Ge	PReserved and the second secon	sp.ReturnCode element: ral tab in Properties):	CACHEF [01] <intege [01] <intege [01] <intege [01] <intege< td=""></intege<></intege </intege </intege

🖻 loadCache 🎽 🗳 Item					
-loadCache ↓ ↓	목 목 X 예 예 좋 좋 <	i 🔞 🕲 🐌 🖩 🖮 🛅 i	3		
				Ŷ	
🗉 🔁 CachePutReturn	<anonymous></anonymous>		🗉 🖳 CacheResp		CACHERESP
⇒ <click filter="" to=""></click>			⇒ <click filter="" to=""></click>		
Count	[11] int	🏜 📲 Move 🗸	ReturnCode	[01]	<integer></integer>
		🖿 Assign 🗸	EntriesAdded	[01]	<integer></integer>
□™ Item	DEPARTMENT		EntriesRemoved	[01]	<integer></integer>
Click to filter>			EntriesRetrieved	[01]	<integer></integer>
C DEPTNO	[01] <string></string>	∎ Move ▼	ERROR_ID	[01]	<string></string>
DEPTNAME	[01] <string></string>	Move -	ERROR_Message	[01]	<string></string>
MGRNO	[01] <string></string>		ERROR_Inserts	[01]	JSONArray_ERROR_Inser
ADMRDEPT	[01] <string></string>		P Dopartmont		DEDADTMENT
LOCATION	[01] <string></string>		Click to filtor		DEPARTMENT
				[0 1]	<string></string>
				[0.1]	<string></string>
				[0.1]	<string></string>
				[0.1]	<string></string>
				[0.1]	<string></string>
			ELOCATION	[01]	<sump></sump>
t					

4.2.4 Configure the Cache Failure transform

In this next section you configure the Cache Failure transform. The logic in this transform will be executed when there is a problem accessing the Cache.

🖆 loadCache 🎽 🗳 Iter	n			
•loadCache		= 🚑 🏷 🐌 🐌 🎟 🍰 🖼 🍪 🚚 🖾		
			<u> </u>	È
∍ 1⁄8 Item	DEPARTMENT	□ Cache Put - ³ □ Cache Return - ³	em lick to filter>	DepartmentCPutLineIt
券 <click filter="" to=""></click>		Cache Failure - 4	CacheResp [01 Department [01	CACHERESP DEPARTMENT
DEPTNO	[01] <string></string>			
DEPTNAME	[01] <string></string>			
MGRNO	[01] <string></string>			
ADMRDEPT	[01] <string></string>			
LOCATION	[01] <string></string>			

Cor	nnect: 1) Cache 2) Cache 3) Cache	Failure. ID to Ca Failure. Messa Failure. Inserts	acheResp. ERROR_ ge to CacheResp. E to CacheResp.ERI	_ID RROR_Message ROR_Inserts.Item	1	
🖻 lo	oadCache 🎽 🖳 Iter	m 🎽 🖳 CacheResp				
≁loa	adCache 🦯 🚑	X 40 14 € € 4		F		
					4	
- 2	CacheFailure	<anonymous></anonymous>	\frown	🗉 🗟 CacheResp		CACHERESP
*	<click filter="" to=""></click>			Click to filter>		
	e ID	[11] string	Move -	ReturnCode	[01]	<integer></integer>
	Message	[01] string	Move -	EntriesAdded	[01]	<integer></integer>
	Inserts	[0*] anySimpleType	Move •	EntriesRemoved	[01]	<integer></integer>
					[0.1]	<integer></integer>
				ERROR Message	[0.1]	<string></string>
: .					[01]	sounige
				ERROR Inserts	[0.,1]	ISONArray FRROR Inserts
Clic	ck the Yello	w Up arrow to r	return to the previou	■ ERROR_Inserts ■ E ERROR_Inserts ■ Item	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
Clic	ck the Yello e <u>For each</u> l	w Up arrow to r level of the loac	return to the previou ICache map will nov	IS level.	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
Clic	ck the Yello e <u>For each</u> I _{padCache} > ^e Iter	w Up arrow to r level of the load	return to the previou	■ ERROR_Inserts ■ Item Is level. w look like this:	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I ^{badCache > ®} Iter adCache <i>></i>	w Up arrow to r level of the load	return to the previou Cache map will nov	■ ERROR_Inserts ■ Item Is level. w look like this: ■	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I padCache ^{>} ® Iter adCache	w Up arrow to r level of the load	return to the previou dCache map will nov	■ ERROR_Inserts ■ Item Is level. w look like this: #	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I padCache ^{>}	w Up arrow to r level of the loac	return to the previou Cache map will nov	■ ERROR_Inserts ■ Item Is level. w look like this: ■ E ERROR_Inserts ■ Item	[01]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I padCache ^{>}	w Up arrow to r level of the load	eturn to the previou	■ ERROR_Inserts ■ Item IS level. w look like this: ■ E ERROR_Inserts ■ Item	[01] [0*]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I badCache ^{>} © Iter adCache	w Up arrow to r level of the load	eturn to the previou	■ ERROR_Inserts ■ Item IS level. w look like this: ■ © Click to filter ■ © CacheResp	[01] [0*]	JSONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I vadCache ^{>} R Iter adCache [®] Item	w Up arrow to r level of the load	return to the previou Cache map will nov	■ ERROR_Inserts ■ Item IS level. W look like this: ■ © Click to filter ■ © CacheResp ■ © Departmen	[01] [0*]	ISONArray_ERROR_Inserts ERROR_Inserts_Item
	ck the Yello e <u>For each</u> I vadCache > @ Iter adCache	w Up arrow to r level of the load	return to the previou Cache map will nov	■ ERROR_Inserts ■ Item IS level. W look like this: ■ © Item ■ © Item ■ © Item ■ © Click to filter ■ © CacheResp ■ © Departmen	[01] [0*]	DepartmentCPutLineIte
	ck the Yello e <u>For each</u> I adCache > @ Iter adCache @ Item % Item <click filter="" to=""> @ DEPTNO @ DEPTNO</click>	w Up arrow to r level of the load m DEPARTMENT [0.1] <string></string>	return to the previou dCache map will nov	■ ERROR_Inserts ■ Item Is level. W look like this: ■ © Item ■ © Click to filter ■ © CacheResp ■ © Departmen	[0.1] [0.*]	DepartmentCPutLineIte
	ck the Yello e <u>For each</u> I adCache > & Iter adCache a	w Up arrow to r level of the loac m DEPARTMENT [01] <string> [01] <string> [01] <string></string></string></string>	return to the previou dCache map will nov	■ ERROR_Inserts ■ Item Is level. W look like this:	[0.1] [0.*]	DepartmentCPutLineIte
	ck the Yello e <u>For each</u> I adCache > @ Iter adCache > Item Item Click to filter> Iterno DEPTNO DEPTNAME MGRNO ADMRDEPT	w Up arrow to r level of the loac m DEPARTMENT [01] <string> [01] <string> [01] <string> [01] <string></string></string></string></string>	return to the previou dCache map will nov	■ ERROR_Inserts ■ Item Is level. W look like this:	[0.1] [0.*]	DepartmentCPutLineIte
	ck the Yello e <u>For each</u> I padCache > g Iter adCache P Iterm Click to filter> DEPTNO DEPTNO DEPTNAME MGRNO ADMRDEPT E LOCATION	w Up arrow to r level of the load m P 2 2 2 P P P X DEPARTMENT [0.1] <string> [0.1] <string> [0.1] <string> [0.1] <string> [0.1] <string> [0.1] <string> [0.1] <string> [0.1] <string></string></string></string></string></string></string></string></string>	eturn to the previou Cache map will nov	IS level. W look like this:	[0.1] [0.*]	JSONArray_ERROR_Inserts ERROR_Inserts_Item DepartmentCPutLineIte 1] CACHERESP 1] DEPARTMENT

4.3 Complete the loadcache subflow



5. Test the loadCache operation

In this section you will test the Cache Load operation that you configured in the previous section.

1.	Deploy the HR_Service to the default Integration Server on TESTNODE_iibuser
	Generation Development ☎
	Application Development <u>New</u>
	 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
	🖧 Integration Nodes 🖾 🛛 🚔 🔲 🗖
	🗉 🎝 Integration Nodes
	ia default
	□ · · · · · · · · · · · · · · · · · · ·
	■ HRDB
2.	In SwaggerUI, rerun the REST API by clicking the "Try it out" button on the loadCache (POST) operation on Resource /department/Cache (you should already have this open from earlier in the lab guide):
	departmentKey
	Try it out!
	Request URL
	http://localhost:7800/HRDB_RESTServices/resources/departments/cache
	Response Body
	{ DBResp": _{



ŀ.	Switch to the IIB Cons	ole th	at you left	open with	the cache	eadmin command in it and rerun
	the command:					
	mqsi	cach	eadmin 1	ESTNODE	iibuse	r -c showMapSizes
	The output of this com SYSTEM.BROKER.D	imano EFAL	d will be si J LTMAP r	milar to bel low has us	ow, and v er data er	vill show that the global cache htries:
	IBM Integration Console 10	0.0.0.6				
	C:\IBM\IIB\10.0.0.6>mqsica BIP7187I: Output from the Starting at: 2016-09-23 15 CWXSI0068I: Executing comm	cheadmi nqsicac :45:43. and: sh	n TESTNODE_i headmin comm 146 owMapSizes	ibuser -c sho and. The outp	wMapSizes ut from the	WebSphere eXtreme Scale xscmd utility is '
	*** Displaying results for	WMB da	ta grid and	mapSet map se	τ.	
	*** Listing maps for TESTN Map Name 	DDE_iib Parti	user_192.168 tion Map Ent	.52.129_2800 ries Used Byt	*** es Shard Typ	e Container
	SYSTEM. BROKER. CACHE. CLIENT	S 4	1	640 B	Primary	TESTNODE_iibuser_192.168.52.129_2800_C-1
	SYSTEM BROKER CACHE SERVER	5 4	1	656 B	Primary	TESTNODE_11buser_192.168.52.129_2800_C-1
	SYSTEM BROKER DEFAULTMAP	1	1	466 B 422 B	Primary	TESTNODE_11Duser_192.168.52.129_2800_0-1
	SYSTEM BOOKED DEFAULTING	2	2	968 B	Primary	TESTNODE_IIDUSEr_192.168.52.129_2800_C 1
	SYSTEM BROKER DEFAULTMAP	4	2	968 B	Primaru	TESTNODE jibuser 192 168 52 129 2800 C-1
	SYSTEM, BROKER, DEFAULTMAP	5	2	976 B	Primaru	TESTNODE iibuser 192.168.52.129 2800 C-1
	SYSTEM BROKER DEFAULTMAP	ě.	1	480 B	Primaru	TESTNODE ijbuser 192 168 52 129 2800 C-1
	SYSTEM, BROKER, DEFAULTMAP	7	1	480 B	Primaru	TESTNODE iibuser 192,168,52,129 2800 C-1
	SYSTEM. BROKER. DEFAULTMAP	8	1	480 B	Primary	TESTNODE iibuser 192.168.52.129 2800 C-1
	SYSTEM.BROKER.DEFAULTMAP	9	2	960 B	Primary	TESTNODE_iibuser_192.168.52.129_2800_C-1
	SYSTEM. BROKER. DEFAULTMAP	10	1	496 B	Primary	TESTNODE_iibuser_192.168.52.129_2800_C-1
	SYSTEM. BROKER. DEFAULTMAP	12	1	480 B	/ Primary	TESTNODE_iibuser_192.168.52.129_2800_C-1
	Server total: 17 (8 KB)					1
						4
	lotal catalog service doma	in coun	t: 17 (8 KB)			which an the CODU TO DUTED and which a
	(The used bytes statistics	are ac	curate only	wnen you are	using simple	objects of the CUPY_IU_BYIES copy mode.)
	CWXSI0040I: The showMapSiz	es comm	and complete	d successfull	у.	
	Ending at: 2016-09-23 15:4	5:44.61	3			
	BIP8071I: Successful comma	nd comp	letion.		~_~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
	Each container has ei	ther 1	or 2 "Map	Entries", r	epresenti	ng the data from each row in the

6. Implement the Get Department Cache operation

6.1 Review the /departments/cache Resource Definition

4	Open the DEST ADI Description for the UD. Service
1.	Open the REST APT Description for the TIK_Service.
	Expand the Resources section, then expand /departments/cache and scroll to the getFromCache (GET) operation:
2.	Note the (GET) operation has a mandatory ("required") parameter called departmentKey:
	- Resources
	/departments
	✓ /departments/cache
	GET getFromCache Retrieve DEPARTMENT entry from cache
	Name Parameter typ Data type Format Required Description
	a departmentikey query v sunng v key to retrieve nom cache
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse:
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse: GET getFromCache Retrieve DEPARTMENT entry from cache
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse: GET getFromCache Retrieve DEPARTMENT entry from cache Name Parameter typ Data type Format Required Description
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse: GET getFromCache Retrieve DEPARTMENT entry from cache Name Parameter typ Data type Format Required Description departmentKey guery string Key to retrieve from Cache
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse: GET getFromCache Retrieve DEPARTMENT entry from cache Name Parameter typ Data type Format Required Description departmentKey guery string Key to retrieve from Cache Response stat Description Array Schema type
3.	Image: Terminative status Terminative status Terminative status Terminative status Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse: Retrieve DEPARTMENT entry from cache GET getFromCache Retrieve DEPARTMENT entry from cache Name Parameter typ Data type Format Required Description departmentKey guery string Key to retrieve from Cache Array Schema type Allow nul 200 The operation was successful. EgetResponse DepARTMENT DepARTMENT
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse:
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse:
3.	Note the (successful) response status of 200 from the getFromCache operation has been specified with a Schema Type of DepartmentCacheGetResponse:



Accessing Global Cache from a Mapping Node

Version 10.0.0.6

1.

6.2 Review and complete the getFromCache map.

In the getFromCache map, on the output Message Assembly, expand JSON.Data and note that the output matches the DepartmentCacheGetResponse Schema type that was specified in the REST API Description (ie it is made up of two data structures of type CACHERESP and DEPARTMENT): getFromCache 33 🛼 🖻 명 🚮 💕 🌮 음 목 🗶 역 여 🐔 🚭 역 -getFromCache 🗉 🔠 Message Assembly ° <u>₿ Task</u> • 🗉 🖼 Message Assembly BLOB JSON Click to filter...> Click to filter...> Move -🗉 🖉 Properties [0..1] PropertiesType 🗉 🛃 Properties [0..1] PropertiesType 🗉 🐙 JSON [1..1] JSONMsgType E LocalEnvironment [0..1] _LocalEnvironmentType Padding [0..1] string 🗉 🐙 BLOB [1..1] BLOB_Msg_type 🗉 🕼 Data [1..1] DepartmentCacheGetResponse CacheResp [0..1] CACHERESP 🗉 🖻 Department [0..1] DEPARTMENT 2. On the input Message Assembly, expand "LocalEnvironment > REST > Input > Parameters > "choice of cast items" and note that the (string) parameter departmentKey that was specified on the REST API Description is defined in the input. Right click on departmentKey and choose "Quick Link to Output": [0..1] _LocalEnvironmentMQTTTy & Add output Ctrl+Shift+N, O 🗉 🖻 REST [0..1] _LocalEnvironmentRESTTy 🍰 Add environment mapping [0..1] _RESTInputType 🗉 🖻 Input Open Information Popup Ctrl+Shift+I Method [0..1] string **Open Declaration** F3 Operation [0..1] string 🖪 Cast... Path [0..1] string e URI [0..1] string P Add Transform Ctrl+J - Add Connection Parameters [0..1] <Anonymous> 😂 Auto Map 🗉 🖧 choice of cast items [0..*] Ctrl+R Quick Link to Output 🖁 any [1..1] Database **departmentKey** [1..1] string A Cache 3. In the list of Output objectschoose JSON > "Data : DepartmentCacheGetResponse" 🗉 🖻 JMS [0..1] _LocalEnviron [0..1] _LocalEnvironr __ Output Objects ■
 ■ Mapping 🗉 🖻 Database [0..1] _LocalEnvironr 🖻 🖼 Message Assembly : JSON [0..1] _LocalEnvironr B JSON : JSONMsgType [1..1] [0..1] _LocalEnvironr Padding : string [0..1] B CREST [0..1] _LocalEnvironr Data : anvType [1 1] 🗉 🖻 Input [0..1] _RESTInputTy 📴 🚾 Data : DepartmentCacheGetResponse [1..1] Method [0..1] string Operation [0..1] string Path [0..1] string **URI** [0..1] string Parameters [0..1] <Anonymous> choice of cast items [0..*] 🖳 any [1..1] 🗟 departmentKey [1..1] string Select output object to complete transformation



6.3 Configure the Cache (Get) transforms

The ability to obtain information from the Global Cache is done using a Cache Get transform. In this next section you will configure the Cache Get, Cache Return and Cache Failure transforms.

🖻 getFromCache 🎽 🕼 Data				
-getFromCache 🛛 🖓 🖓 🐞 🕸	• × ङ 😫 🗞 🔯	🖩 🚼 🛱 🚝 🛙 🖾		
	Get	a kev-value pair from cao	hel	全
departmentKey string		🗉 🕼 Data		DepartmentCacheGetRespo
		Click to filter>		
		🗉 🖻 CacheResp	[01]	CACHERESP
		🗉 🖻 Department	[01]	DEPARTMENT
	∽ ∁∊⋑⋏⋏ ⋳∊∊⋽⋎⋶⋽⋽⋽⋑⋳⋍⋽⋎			&,,
Click the box currounding bot	a tha Cacha Cat (and Cacho Potu	n tra	neforme hoverover
Check the box surrounding both				
box until the dialog icon to "Ca	atch a failure from	i the cache opera	ation"	' appears, click the i
to add the Cache Failure tran	oform			
to add the Cache Failure trans	sionn.			
🖻 getFromCache 🎽 🔯 Data				
•getFromCache				
				企
ेखें departmentKey string	Cacha Cd Cataba	failure from a cache ene	ration	DepartmentCacheGetRespo
		Section a cache ope	ration	
	<u>Cacne Return</u>	🗉 🖻 CacheResp	[01]	CACHERESP
		🗉 🖻 Department	[01]	DEPARTMENT
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<i>^بر_ر_ر_</i>	
Three Cache transforms will r	low have been cr	eated in the nest	ed m	an.
			.cu m	up.
astFramCasha > 🕼 Data				
getFromCache > 1/8 Data	'  🗶   🕾 🛱   🕼 🕸 🕼	m 👪 🎫 💭 🏣   🖭		
le getFromCache [▶] [™] ® Data <u>•getFromCache</u> <i>№ №</i> [™] [™] [™] [™] [™] [™]				企
getFromCache				DepartmentCacheGetRespo
getFromCache GetF		🗉 🗓 Data		Departmentedencoettespo
<ul> <li></li></ul>	<u>I ache Get</u> → M	□		
getFromCache     We Data     getFromCache     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P     P	[™] <u>Cache Get</u> × [™]	□ [®] Gata [®] <click filter="" to=""></click>	[0 4]	CACHEDECD
getFromCache GetF	Cache Get - * Cache Return - * Cache Failure - *	<ul> <li>■ G Data</li> <li>⇒ <click filter="" to=""></click></li> <li>■ CacheResp</li> </ul>	[01]	CACHERESP
getFromCache GetF	Cache Get - * Cache Return - * Cache Failure - *	<ul> <li>■ [™]is Data</li> <li>[™] <click filter="" to=""></click></li> <li>[™] € CacheResp</li> <li>[™] € Department</li> </ul>	[01] [01]	CACHERESP DEPARTMENT
getFromCache GetF	Cache Get - * Cache Return - * Cache Failure - *	<ul> <li>□ [†]_® Data</li> <li>[‡] <click filter="" to=""></click></li> <li>[®] € CacheResp</li> <li>[®] € Department</li> </ul>	[01] [01]	DEPARTMENT

#### 6.3.1 Configure the <u>Cache Get</u> transform



#### 6.3.2 Configure the Cache Return transform



Accessing Global Cache from a Mapping Node

2.	Connect departmentKey to Cache Return	
	🖻 getFromCache 🎽 🗟 Data	7
	-getFromCache 🖉 🖗 🖗 🖗 🖗 🖗 🖗 🏷	
	Cache Get       Cache Get       Cache Return       Cache Failure	
3.	Click on Cache Return to go to the Cache Return nested map.	
4.	Connect Value to Department. The transform that will be created is a "Local map" this to an IF transform:	, change
	🖻 getFromCache > 🔯 Data > 🕾	
	<u> •getFromCache</u>	4
	□ 管 CacheGetReturn <anonymous>         ⇒ <click filter="" to="">       ⇒ <click filter="" to=""></click></click></anonymous>	PARTMENT
	Value     [0.1] anySimpleType	tring>
	departmentKey string	tring>
	S S S S S S S S S S S S S S S S S S S	tring>
	Custom Transforms S	tring>
		CHERESP
5.	Right click on the blue background of the <b>If</b> transform and select <b>Add Else</b> from the options:	ne list of
	VIndo Delete connection	
	Redo Redo	DEDAR
	CacheGetReturn < Anonymous> Revert	DEPA
	Value     [01] anySimpleType     Cut     Ctrl-	+X <strin< td=""></strin<>
	Copy Ctrl-	+C <strin< td=""></strin<>
	All departmentkey string	<strin< td=""></strin<>
	* Delete	<strin< td=""></strin<>
	- Add Connection	
	Add Else II	CACH
	😫 Auto Map	<inter< td=""></inter<>
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~



-							
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Û		<b>נ</b> 💛 ו	Jndo Delete transform Redo	
- 5		🗉 🖳 CacheResp		CACHERESP	F	Revert	
3		⇒ <click filter="" to=""></click>				?ut:	Chrl+V
Į		ReturnCode	[01]	<integer></integer>		Cody	Ctrl+C
ł		EntriesAdded	[01]	<integer></integer>	F	Paste	Ctrl+V
ł		EntriesRemoved	[01]	<integer></integer>		N-l-t-	
ł		EntriesRetrieved	[01]	<integer></integer>	L	Jelete	
{		ERROR_ID	[01]	<string></string>	i (	Open Information Popup	Ctrl+Shift+I
Į		ERROR_Message	[01]	<string></string>	(	Open Declaration	F3
-		■      ■ ERROR_Inserts	[01]	JSONArray_ERRO	<b>e</b> (	Cast	
Į					- J	Add Connection	
ł	🖽 Deployment Lo	g 🖷 Progress			31	Auto Map	
ł					(	Quick Link from Input	Ctrl+L
1				(	루 /	Add Assign	
ł							
$+ \lambda$					-	Database	
Ir	n the properties	s field for the Assign	n trans	form, set the V	alue	Database Cache e to numeric zero (( Dutline	)):
- Ir	n the properties	s field for the Assign Propertie <b>Transfo</b> <b>General</b> Cardinality ve two steps and ad	es x	form, set the V Problems Assign Value:	íalu íalu ≣≣ () 0	Database Cache	D): esRetrieveo
Ir R	n the properties	s field for the Assign Propertie Transfo General Cardinality ve two steps and ad	a transf es 🛛 a orm -	form, set the V Froblems Assign Value: Assign value of	'alu 'alu 0 1 to	Database Cache e to numeric zero (( Dutline Dutline CacheResp.Entrie	D): esRetrieved [0,1] <integ [0.]] <integ< td=""></integ<></integ 
Ir R	n the properties	s field for the Assign Propertie Transfo General Cardinality ve two steps and ad	a transf es 🛛 a orm -	form, set the V Problems Assign Value: Assign value of Assign	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Database Cache e to numeric zero (( Dutline Dutline CacheResp.Entrie EstriecRemoved EntriesRetrieved EntriesRetrieved	0): esRetrieved [0,1] <integ [0] <integ [0] <string< td=""></string<></integ </integ 
R	n the properties	s field for the Assign Propertie Transfo General Cardinality ve two steps and ad	i transi es x i orm -	form, set the V Problems Assign Value:	2'alua 2'alua 3= 0 0	Database Cache e to numeric zero (( Dutline Dutline CacheResp.Entrie EntriesRetrieved EntriesRetrieved EntriesRetrieved	0): esRetrieved [0,1] <integ [0] <integ [01] <string< td=""></string<></integ </integ 
Ir F	Repeat the abo	s field for the Assign Propertie <b>Transfo</b> <b>General</b> Cardinality ve two steps and ad	i transi es 🛛 ) orm -	form, set the V form, set the	íalu íalu i≣ () 0	Database Cache e to numeric zero (( Dutline Dutline EntriesResp.Entrie EntriesRemoved EntriesRetrieved ERROR_LD SProgress	D): esRetrieved [0_1] <integ [0] <integ [01] <string< td=""></string<></integ </integ 

🤄 getFromCache 🎽 🗟 🛙	Data 🎽 🎽 🖤					
•getFromCache	[X  에데   能 음 역 역	🕾 😫 🔞	🕲 🐌   🖩 🏭 '	🗄 🎲 🚝   📰		
					Ŷ	
🕲 Value	anvSimpleType		Move -	🗉 🖳 CacheResp		CACHERESP
				Section Section Section 2 Sectio		
CartmentKey	string	A	Assign -	ReturnCode	[01]	<integer></integer>
				EntriesAdded	[01]	<integer></integer>
				EntriesRemoved	[01]	<integer></integer>
		♦ ¹ A	Assign -	EntriesRetrieved	[01]	<integer></integer>
				ERROR_ID	[01]	<string></string>
				ERROR_Message	[01]	<string></string>
				ERROR_Inserts	[01]	JSONArray_ERROR_Insert
				🗉 🖳 Department		DEPARTMENT
				⇒ <click filter="" to=""></click>		
				DEPTNO	[01]	<strina></strina>
				S DEPTNAME	[01]	<string></string>
				MGRNO	[01]	<string></string>
				ADMRDEPT	[01]	<string></string>
				LOCATION	[01]	<string></string>
Connect departs	mentKey to DEP	TNO:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	± € <b>#</b>   E		
Connect departi	mentKey to DEP	TNO:	1970) III (1971)	æ <b>6 ₽</b>   E	Ŷ	
© getFromCache > ™ C •getFromCache	mentKey to DEP	TNO:	🐮 🐌   🔳 🏭 1	翻 翻 罪   智	Ŷ	CACHERESP
Connect departs	mentKey to DEP	TNO:	ੴ ℃   Ⅲ ∰ Move ~	ப 异 ■  CacheResp	Ê	CACHERESP
GetFromCache > % C •getFromCache > % C •getFromCache % departmentKey	mentKey to DEP	TNO:	Nove		<u>ن</u> [01]	CACHERESP <integer></integer>
Genter departi getFromCache > % C •getFromCache % Value *@ departmentKey	mentKey to DEP	TNO:	Nove -	■ 畲 ₩   E S CacheResp ⇒ <click filter="" to=""> © ReturnCode © EntriesAdded</click>	(01) [01]	CACHERESP <integer> <integer></integer></integer>
Image: Connect departs         Image: getFromCache         • getFromCache         Image: getFromCache	mentKey to DEP		Move -	<ul> <li>Image: Second se</li></ul>	£	CACHERESP <integer> <integer> <integer></integer></integer></integer>
Image: Connect departs         getFromCache > % D         •getFromCache         * Value         * departmentKey	mentKey to DEP		Move • Move • Assign •	<ul> <li>Image: Second se</li></ul>	(01) (01) (01) (01)	CACHERESP <integer> <integer> <integer> <integer></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -	<ul> <li>Image: Second state of the secon</li></ul>	[01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <integer> <string></string></integer></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -	<ul> <li>■ Image: Second Second</li></ul>	[01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string></string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -	<ul> <li>■ Image: Second Second</li></ul>	[01] [01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert</string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -		(01) [01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT</string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -	<ul> <li>Image: Second se</li></ul>	(01) [01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT</string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign -		(01) (01) (01) (01) (01) (01) (01)	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT <string></string></string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Kssign -		(0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1)	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT <string> <string></string></string></string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Kssign -		(01) (01) (01) (01) (01) (01) (01) (01)	CACHERESP <integer> <integer> <integer> <integer> <string> SSONArray_ERROR_Insert DEPARTMENT <string> <string> <string></string></string></string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Assign - Ssign -	<ul> <li>■ Image: CacheResp</li> <li>⇒ <click filter="" to=""></click></li> <li>Image: ReturnCode</li> <li>Image: EntriesAdded</li> <li>Image: EntriesRemoved</li> <li>Image: EntriesRetrieved</li> <li>Image: EntriesRetriesRetrieved</li> <li>Image: EntriesRetriesRetrieved</li> <li>Image: EntriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetriesRetrisRetriesRetriesRetriesRetriesRetrisRetriesRetriesRetriesRetrit</li></ul>	(01) (01) (01) (01) (01) (01) (01) (01) (01)	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT <string> <string> <string> <string></string></string></string></string></string></string></integer></integer></integer></integer>
Connect depart	mentKey to DEP		Move - Kssign -		(0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1)	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT <string> <string> <string> <string> <string> <string> <string></string></string></string></string></string></string></string></string></string></integer></integer></integer></integer>
Connect departu	mentKey to DEP		Move - Move - Assign - Assign -	<ul> <li>Image: Second state of the secon</li></ul>	(0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1) (0.1)	CACHERESP <integer> <integer> <integer> <integer> <string> JSONArray_ERROR_Insert DEPARTMENT <string> <string> <string> <string> <string> <string> <string></string></string></string></string></string></string></string></string></integer></integer></integer></integer>
Click the vellow	mentKey to DEP		Move • Move • Move • Assign • Assign •	S Level:	(01) (01) (01) (01) (01) (01) (01) (01) (01) (01)	CACHERESP <integer> <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Insert DEPARTMENT <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <string> <str< td=""></str<></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></string></integer></integer></integer></integer></integer>

getFromCa	che 🎽 🖲 Data 🎽 🚍	CacheResp		
•getFromCa	iche 🛛 🔑 🖗	음 (북 (백 년) (학 (학	10 10 10 10 10 10 10 10 10 10 10 10 10 1	
			£	
		🗉 🖳 CacheResp	CACHERES	)
		>		
	Assign	ReturnCode	[01] <integer></integer>	
		🖻 EntriesAdded	[U1] <integer></integer>	
		EntriesRemoved	[01] <integer></integer>	
		EntriesRetrieved	[01] <integer></integer>	
		ERROR_ID	[01] <string></string>	
		ERROR_Message	[01] <string></string>	
		ERROR_Inserts	[01] JSONArray_	ERROR_Inserts
Cardinality				
dd an Assigr	transform to Enti	riesRetrieved and set	he value to nume	eric zero (0):
dd an Assigr	transform to Entr che > ¹ / ₁ ® Data > ^(a) ache	riesRetrieved and set CacheResp	he value to nume	eric zero (0):
dd an Assigr dd an Assigr getFromCa •getFromCa	transform to Entr che > 🕼 Data > 🖷 ache 🖉 🎶 🖓	riesRetrieved and set	he value to nume	eric zero (0):
dd an Assigr dd getFromCa •getFromCa	n transform to Entr che ^{&gt;} ¹ / ₁ ® Data ^{&gt;} ⁽⁼ ache ^{PI} ^{IP} ^(*)	riesRetrieved and set	he value to nume	eric zero (0):
dd an Assigr dd getFromCa •getFromCa	transform to Entr che > 🕼 Data > 🤤 ache	riesRetrieved and set CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp	he value to nume	eric zero (0):
dd an Assigr	n transform to Entr che ^{&gt;} ¹ B Data ^{&gt;} ^(a) ache ^(a) ^(a) ^(b) ^(b)	riesRetrieved and set  CacheResp  CacheResp  CacheResp  CacheResp  CacheResp  CacheResp  ReturnCode	he value to nume	eric zero (0):
dd an Assigr	transform to Entr che > Tes Data > Tes ache > Tes Data > Tes ache > Tes Data > Tes ache > Tes Data	riesRetrieved and set  CacheResp	he value to nume	eric zero (0):
dd an Assigr	transform to Entr che > 🕼 Data > 🖷 ache 🖉 🍋 🌾	riesRetrieved and set  CacheResp  CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheRe	he value to nume	eric zero (0):
dd an Assigr	ache	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache P P P S	riesRetrieved and set	he value to nume the value to nume CACHERES [01] <integer> [01] <integer></integer></integer></integer></integer></integer></integer></integer></integer></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache	riesRetrieved and set CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer></integer></integer></integer></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] <string></string></string></string></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache Assign •	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] JSONArray</string></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache > 🕼 Data > 🦷 ache > 🕼 Data > 🖷	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache Assign -	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr getFromCa •getFromCa () () () () () () () () () ()	Assign - Assign - Assign -	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr	ache  Assign	riesRetrieved and set CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp CacheResp	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr getFromCa •getFromCa •getFromCa	ache Plata > ache Assign - Assign - Assign - Value: 0	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer>	eric zero (0):
dd an Assigr getFromCa •getFromCa •getFromCa •getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa • getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · g · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · getFromCa · g · getFromCa · g · getFromCa · g · g · g · g · g · g · g · g ·	Assign - Assign - Assi Assign - Assign - Assign - Assign - Assign - Assign - Assign	riesRetrieved and set	he value to nume CACHERES [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <integer> [01] <string> [01] <string> [01] JSONArray</string></string></integer></integer></integer></integer></integer>	eric zero (0):

18. Click the yellow up arrow to return to the previous level. The Cache Return transform will look like this when complete:

				£	
🗉 泡 CacheGetReturn	<anonymous></anonymous>		📑 🖻 Department		DEPARTMENT
Click to filter>			⇒ <click filter="" to=""></click>		
		Conditions	DEPTNO	[01]	<string></string>
Value	[01] anySimpleType		DEPTNAME	[01]	<string></string>
			MGRNO	[01]	<string></string>
<b>Re</b> denartmentKey	string		ADMRDEPT	[01]	<string></string>
Bacparanenatey	String		LOCATION	[01]	<string></string>
			🖃 🖳 CacheResp		CACHERESP
			⇒ <click filter="" to=""></click>		
			ReturnCode	[01]	<integer></integer>
			EntriesAdded	[01]	<integer></integer>
			EntriesRemoved	[01]	<integer></integer>
			EntriesRetrieved	[01]	<integer></integer>
			ERROR_ID	[01]	<string></string>
			ERROR_Message	[01]	<string></string>
			■ ERROR_Inserts	[01]	JSONArray_ERROR_Inserts
	mannan				

#### 6.3.3 Configure the Cache Failure transform

In this section you will configure the processing that will happen when the <u>Cache Failure</u> transform is executed.

🖻 getFromCache 🎽 🖪	🖗 Data							
-getFromCache	16644	101 100 X I	🖙 🛱   🔞 🔞	10 🖬 🖬	🗄 🏭 📕 😂			
							Ŷ	
්ෂ් departmentKey	string		Cache Get		<ul> <li>□ ¹/₁© Data</li> <li>³/₂ &lt; Click to fi</li> <li>□ □ CacheR</li> <li>□ □ Departr</li> </ul>	ilter> esp ment	D [01] C [01] D	epartmentCacheGetRespo ACHERESP JEPARTMENT
L	<u></u>			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~~	~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Connect the fo a) Cache b) Cache c) Cache c) Cache	Ilowing: Failure.ID Failure.Me Failure.Ins	to Cach ssage to erts to C	eResp.EF o CacheR CacheRes	RROR_I Resp.ER Sp.ERR(	D ROR_Me: DR_Insert:	ssage s.ltem		
Connect the fo a) Cache b) Cache c) Cache c) Cache	Ilowing: Failure.ID Failure.Me Failure.Ins	to Cach essage to erts to C	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERR(	D ROR_Mes DR_Inserts	ssage s.Item		
Connect the fo a) Cache b) Cache c) Cache c) Cache	Ilowing: Failure.ID Failure.Me Failure.Ins	to Cach essage to erts to C	eResp.EF o CacheR CacheRes ন হা ৫ জ শ	RROR_I Resp.ER Sp.ERRC	D ROR_Mes DR_Inserts	ssage s.Item		
Connect the fo a) Cache b) Cache c) Cache c) Cache getFromCache > [% -getFromCache * CacheFailure * <click filter="" to=""></click>	Ilowing: Failure.ID Failure.Me Failure.Ins	to Cach essage to erts to C	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERR(	D ROR_Mes DR_Inserts	ssage s.Item	Ŷ	CACHERESP
Connect the fo a) Cache b) Cache c) Cache c) Cache <b>getFromCache a</b> <b>getFromCache</b> <b>a</b> <b>getFromCache</b> <b>b</b> <b>b</b> <b>c</b> <b>c</b> <b>c</b> <b>c</b> <b>c</b> <b>c</b> <b>c</b> <b>c</b>	Ilowing: Failure.ID Failure.Me Failure.Ins Data * @ Cache P P & D = 1 <anony [11] string</anony 	to Cach essage to erts to C eResp mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERR(	D ROR_Mes DR_Inserts	ssage s.Item	[01]	CACHERESP <integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache setFromCache > % • getFromCache > % • getFromCache • % • GIL • % Cache • % • % • % • % • % • % • % • %	Ilowing: Failure.ID Failure.Me Failure.Ins Data * @ Cache P P & D   1 <anony [11] string [01] string</anony 	to Cach essage to erts to C	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERR(	D ROR_Mes DR_Inserts	SSAGE S.Item	[01] [01]	CACHERESP <integer> <integer></integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache c) Cache setFromCache > % setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache se	Ilowing: Failure.ID Failure.Me Failure.Ins Data * @ Cach P P & P   1 <anony [11] string [01] string [0.*1] anySim</anony 	to Cach essage to erts to C eResp mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERR(	D ROR_Mes DR_Inserts	SSAGE S.Item	[01] [01] [01]	CACHERESP <integer> <integer> <integer></integer></integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache c) Cache setFromCache > % setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache setFromCache se	Ilowing: Failure.ID Failure.Me Failure.Ins Data > @ Cach P P & P     <anony [11] string [01] string [0*] anySimp</anony 	to Cach essage to erts to C eResp point in a state mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERRC	D ROR_Mes DR_Inserts	SSAGE S.Item	[01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer></integer></integer></integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache setFromCache > % • getFromCache > % • getFromCache • % • GacheFailure * <click filter="" to=""> © ID © Message © Inserts</click>	Ilowing: Failure.ID Failure.Me Failure.Ins Data * @ Cach P P & P 1 <anony [11] string [01] string [0*] anySimp</anony 	to Cach essage to erts to C eResp mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERRC	D ROR_Mes DR_Inserts	SSAGE S.Item S.Item Sp litter> Code Added Removed Retrieved LID	[01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string></string></integer></integer></integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache setFromCache > 16 setFromCache >	Ilowing: Failure.ID Failure.Me Failure.Ins Data Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache Cache	to Cach essage to erts to C eResp mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER sp.ERRC	D ROR_Mes DR_Inserts	SSAGE S.Item s.Item sp liter> Code Added Removed Retrieved LD (Message	[01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string></string></string></integer></integer></integer></integer>
Connect the fo a) Cache b) Cache c) Cache c) Cache <b>getFromCache a</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>getFromCache</b> <b>g</b>	Ilowing: Failure.ID Failure.Me Failure.Ins Data Cache P P Cache (0.1) string [01] string [04] anySimp	to Cach essage to erts to C eResp mous>	eResp.EF o CacheR CacheRes	RROR_I Resp.ER p.ERRC	D ROR_Mes DR_Inserts	ssage s.ltem	[01] [01] [01] [01] [01] [01] [01]	CACHERESP <integer> <integer> <integer> <integer> <string> <string> JSONArray_ERROR_Inser</string></string></integer></integer></integer></integer>

•getFromCache	<b>X   41</b> 44   <b>66</b> 66 44 44	P #   🗘 🕏 🏷   🖩 🖢 🖬 f	1 📰   🛛 🕄		
				Û	
🗆 🛍 CacheFailure	<anonymous></anonymous>		🗉 🖪 CacheResp		CACHERESP
⇒ <click filter="" to=""></click>	,				
e ID	[11] string	Move -	ReturnCode	[01]	<integer></integer>
Message	[0.,1] string	Move -	EntriesAdded	[01]	<integer></integer>
Incorts	[0 *] anySimpleType	Move -	EntriesRemoved	[01]	<integer></integer>
L'Inserts		Assian	🛛 🕒 EntriesRetrieved	[01]	<integer></integer>
			ERROR_ID	[01]	<string></string>
			ERROR_Message	[01]	<string></string>
			ERROR_Inserts	[01]	JSONArray_El
			ltem	[0*]	ERROR_Inser
•					
Properties  Properties  Pro Fransform - Ass General	oblems & Outline Tracks &	🖩 Deployment Log 🖷 Progr	ess		
Properties 23 Pro Transform - Ass General Cardinality	oblems & Outline Tracks &	■ Deployment Log =5 Progr	ess		

# 7. Test the getFromCache operation

### 7.1 Test the Cache Get and Cache Return transform logic

	meters		
Para	neter Value	Description	Parameter Type
depa Try	it out!	Key to retrieve from Cache	query
After a	a few seconds the Response Body sec	urces/departments/cache?departmentKey=AG	30
	Response Body {     CacheResp": {         "BetunnCode": 0		

Parameter Value	Description	Para
	Description	Туре
departmentKey ABC	Key to retrieve from	que
	Cache	
Try it out! Hide Response		
Request URL		
http://localhost.7000/HRDB_RESTSonvices/reso	uncas/departments/cache2departmentKov-/	BC
Response Body		
Response Body		
Response Body		
Response Body {     "CacheResp": {		
<pre>Response Body {</pre>		
<pre>Response Body {</pre>		
<pre>Response Body {     "CacheResp": {         "ReturnCode": 0,         "EntriesRetrieved": 0     } </pre>		
<pre>Response Body {     "CacheResp": {         "ReturnCode": 0,         "EntriesRetrieved": 0      } }</pre>		
<pre>Response Body {     "CacheResp": {         "ReturnCode": 0,         "EntriesRetrieved": 0     } }</pre>		
<pre>Response Body  {     "CacheResp": {         "ReturnCode": 0,         "EntriesRetrieved": 0      } } Response Code</pre>		

### 7.2 Test the Cache Failure transform logic

In this section you will test the processing logic when the Cache Failure transform is called.

1	Open the getEromCache man
1.	Navigate to the nested map where the Cache Get transform is configured (in the For each
	transform > <u>Cache Get</u> ).
2.	Add an Assign transform to CacheGet.CacheName. Assign a value of "Penguin" ( <i>or a cache name that does not exist in your environment</i> ).
	getFromCache > [™] Data > ■ CacheGet
	-getFromCache 🖉 № № №   №   ≫   ≈ 🛱 🖗 🕲 🕲 🕲 🕲 📾 📾 📾 💭 🔯
	<u>ک</u>
	*@ departmentKey     string       ■ By CacheGet <anonymous>       ⇒ <click filter="" to=""></click></anonymous>
	Key     [11] string
	CacheName [01] string
	Properties 🛛 🔝 Problems 🗄 Outline 🖉 asks 🕮 Deployment Log 🤜 Progress
	Transform - Assign
	General Value: Penguin
3.	Repeat the above process to add an Assign value of "Bear" to the CacheGet.MapName
4.	Save the Map and redeploy the HR_Service
5.	In Swagger UI click the Try it out button again to attempt to obtain the details for a key (any key will do)
6.	In the response Body you will see the following (this is returned via the <u>Cache Failure</u> transform):
	Response Body
	<pre>{     "CacheResp": {         "CacheResp": {             "ReturnCode": -1,             "EntriesRetrieved": 0,             "ERROR_ID": "7182",             "ERROR_Message": "[BIPmsgs:7182]BIP7182E: The WebSphere eXtreme Scale configurable service 'Penguin' cannot be found,             "ERROR_Inserts": [             "Penguin"         ]      } }</pre>

# END OF LAB GUIDE