Developing in the Cloud, for the Cloud

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The new development reality:

Consumerization of technology

Developers making more decisions

Cloud & Mobile Revolution

Changing the types of software that gets built

Systems of engagement

Line of Business and marketing driving

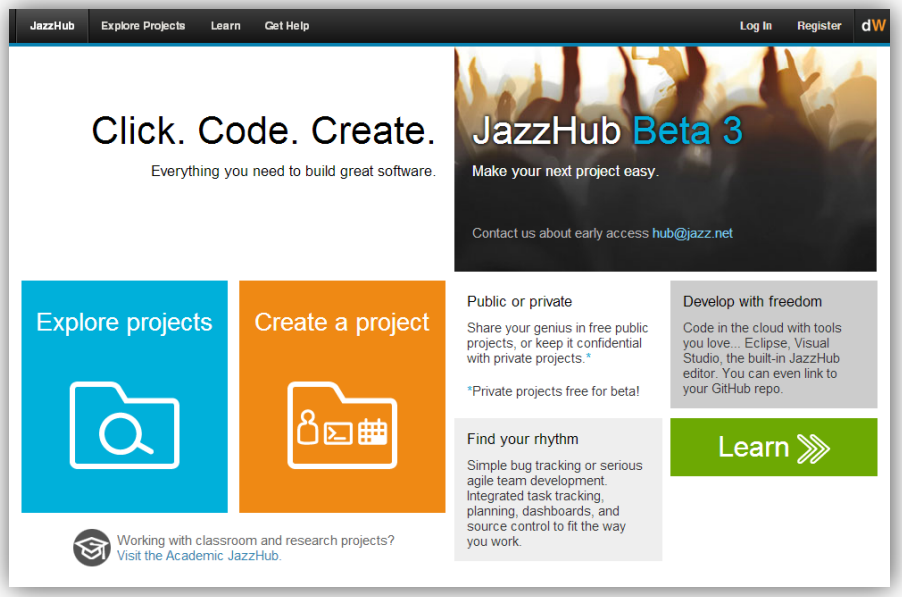
New Development Reality

The Case for Developing in the Cloud

- More and more applications have moved to the Web, to mobile devices, and are being run in Cloud environments
- Rational's Application lifecycle tools offer lifecycle capabilities in the Web
- But Development tasks are largely still done on the desktop in environment like Eclipse or Visual Studio
- Could we offer this experience in the Web, and integrate it into the software lifecycle?
- This is what we're delivering with JazzHub, using the Eclipse Orion technology

JazzHub: your place to Developer for the Cloud, in the Cloud

- What is JazzHub?
  - JazzHub allows you to develop and collaborate on software projects in the cloud.
  - Fully hosted task tracking, agile planning, and integrated source control so you have everything you need to develop your next app, feature or product.
  - IBM's premiere hosted environment for Cloud application development, with built-in DevOps capabilities
  - Free public and fee-based private projects (free during Beta)
  - Explore and join existing projects



Do developers really want to move to the Cloud?

- Progression of desktop to cloud-based tools

- Shift in developer knowledge sharing

- Deploying to Cloud-based PaaS, IaaS, etc.

- *How enjoyable was your last IDE setup experience ???*

What is Orion?

- Eclipse “platform” project initiated 2 years ago -- **Tools for the web, on the web**
- An evolution in tooling leveraging the impressive recent improvements in browser capabilities and availability of cloud services
- Embracing the shift to web-based application delivery and enabling cross site collaboration of “pluggable” services
- A community that benefits from compatibility between a common set of components and services to create richer cloud based tools than they might otherwise by themselves

Orion Key Features

- Replaces need for a desktop IDE
  - Initially targeting needs of web developers (HTML, JavaScript, CSS, Ruby, Python)
- Enable “Core” Coding Activities in a Browser
  - Code editing, navigating source, search, integration with Source Control Management
- Speed / Responsive UI Design
- Extensibility and Community are what sets Orion apart

Mobile Support

- Tablets such as the iPad, iPad mini and Android based platforms are fully supported by Orion
- Add a bluetooth keyboard for a mini workstation

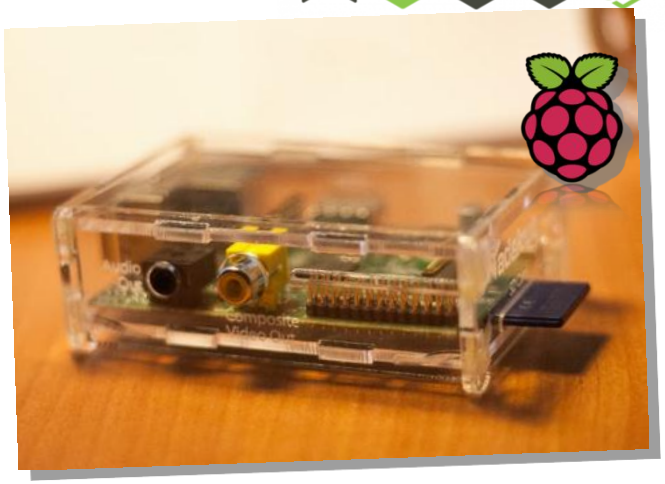
Two sources of an Orion Server

- Multi-user Equinox based **Java** Server
- Great for reusing existing Eclipse plug-ins and exposing them REST-fully to an Orion client

- **Node.js** based single user NPM install
- Very portable and great performance and used anywhere Node is installed

YouTube demo

Also works on embedded boards like the Raspberry Pi



Demo

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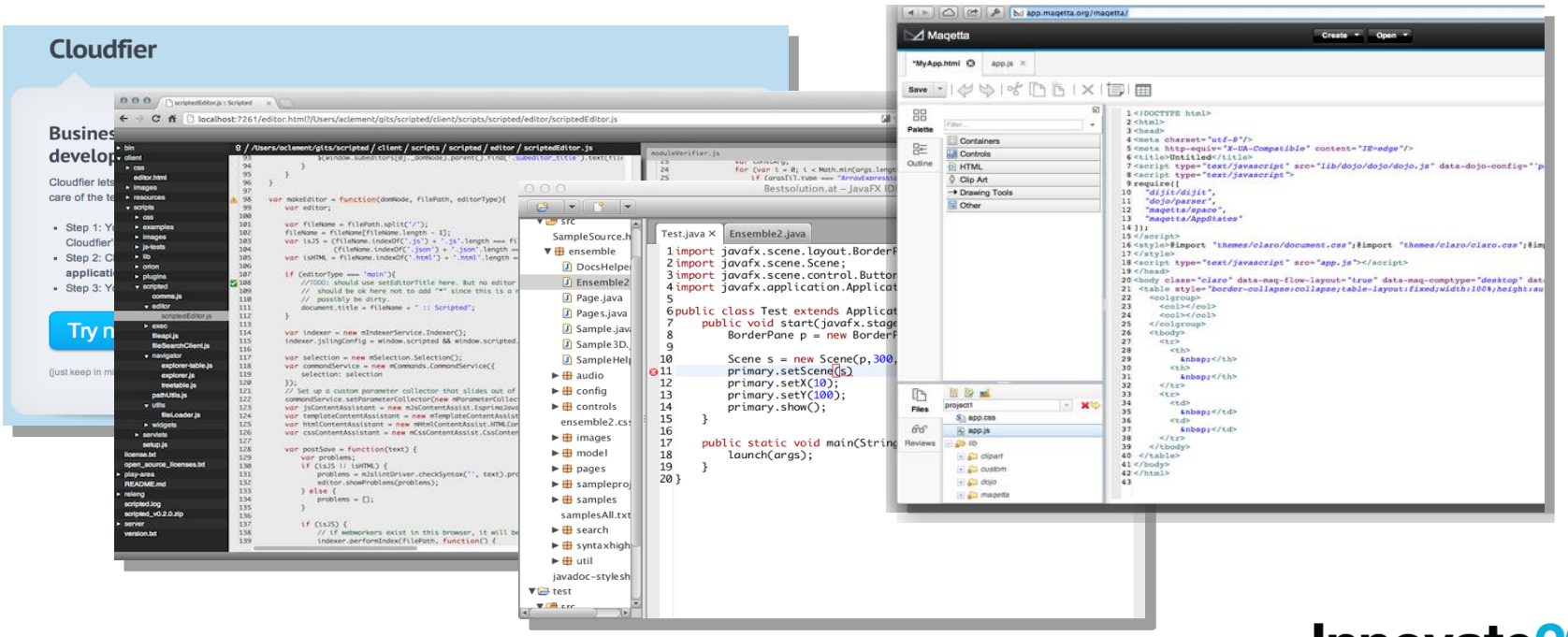
What about the Community?

- **VMWare** JavaScript tooling editor named “Scripted”
- **Firefox** embeds Orion for the Scratchpad and Debug tools
- **e(fx)clipse** leveraging JavaFX, OSGi, Eclipse and Orion
- **Maqetta** leverages the Orion core and file system
- **HP** and **SAP, …**



So we've got a browser-based IDE, now what?

- Seems a little silly to run a Web server on my desktop to edit files
- Wouldn't it be ideal if there was a Cloud for Development where I could use Orion?
  - Integrated with hosted Software Configuration Management
  - Continuous Integration and Deployment
  - Tracking and Planning
  - Integration with Cloud runtimes…
- Introducing JazzHub for everyone
  - Expanding our Academic experiment from 2011 to welcome all public and private projects

Introducing JazzHub Beta 3

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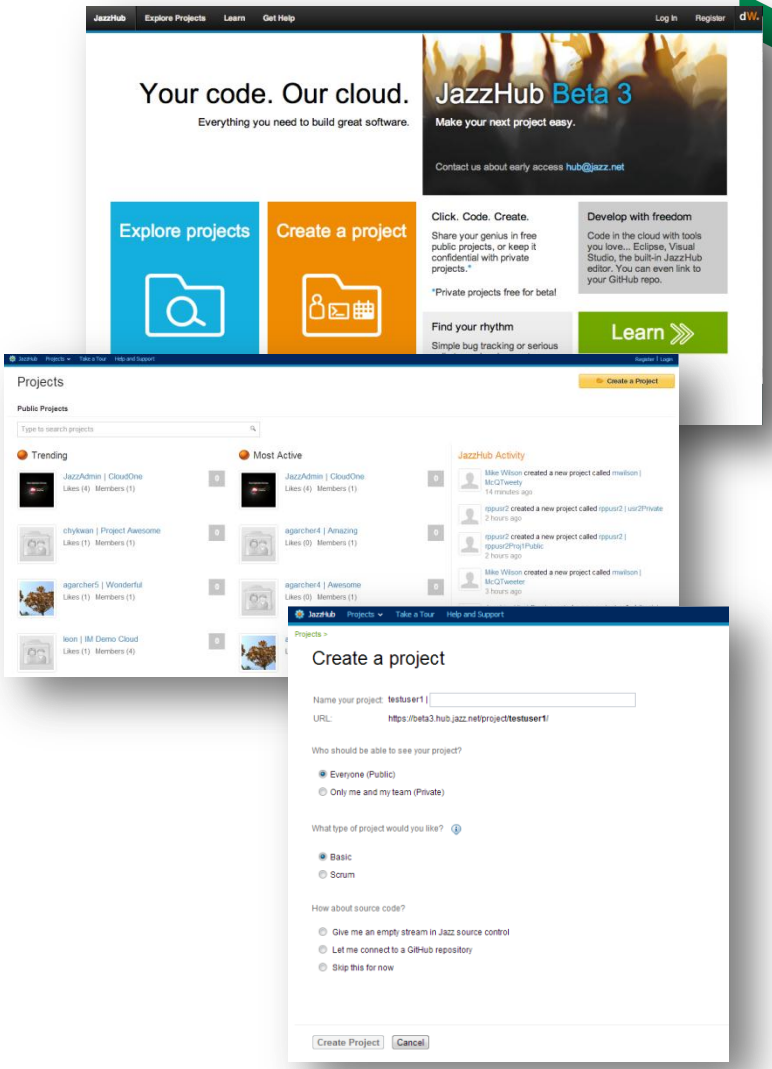
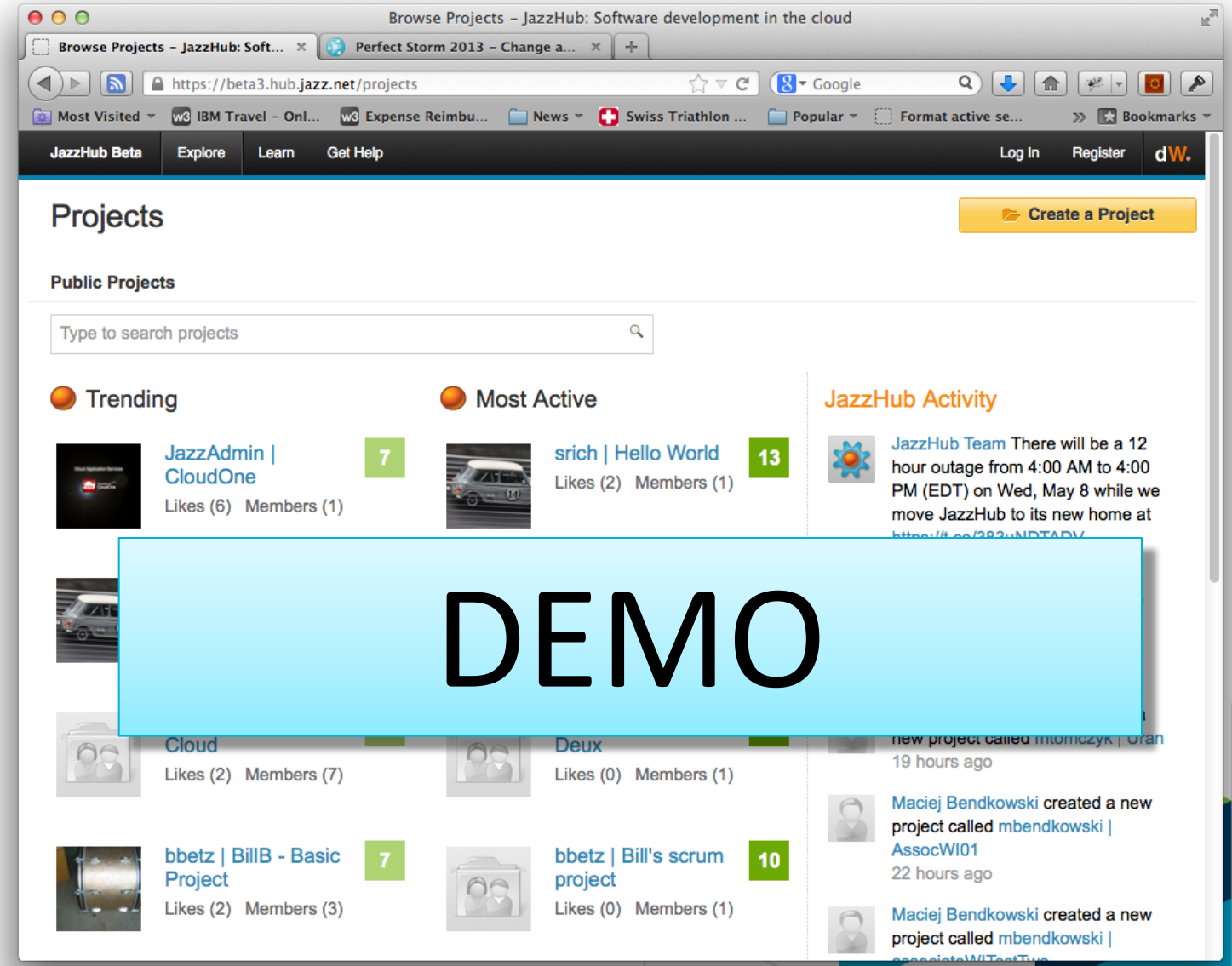
  - IBM's premiere hosted environment for Cloud application development, with built-in DevOps capabilities
  - Free public and fee-based private projects (free during Beta)
  - Explore and join existing projects
- Start quickly. Simply.
  - No downloads required!
  - Create your first project in minutes
- Work the way you want to work
  - Browser-based development using integrated Eclipse Orion technology provided by JazzHub
  - Full support for local development with Eclipse or Visual Studio
  - Built in support for Jazz Source Control
  - Connect to your existing GitHub projects





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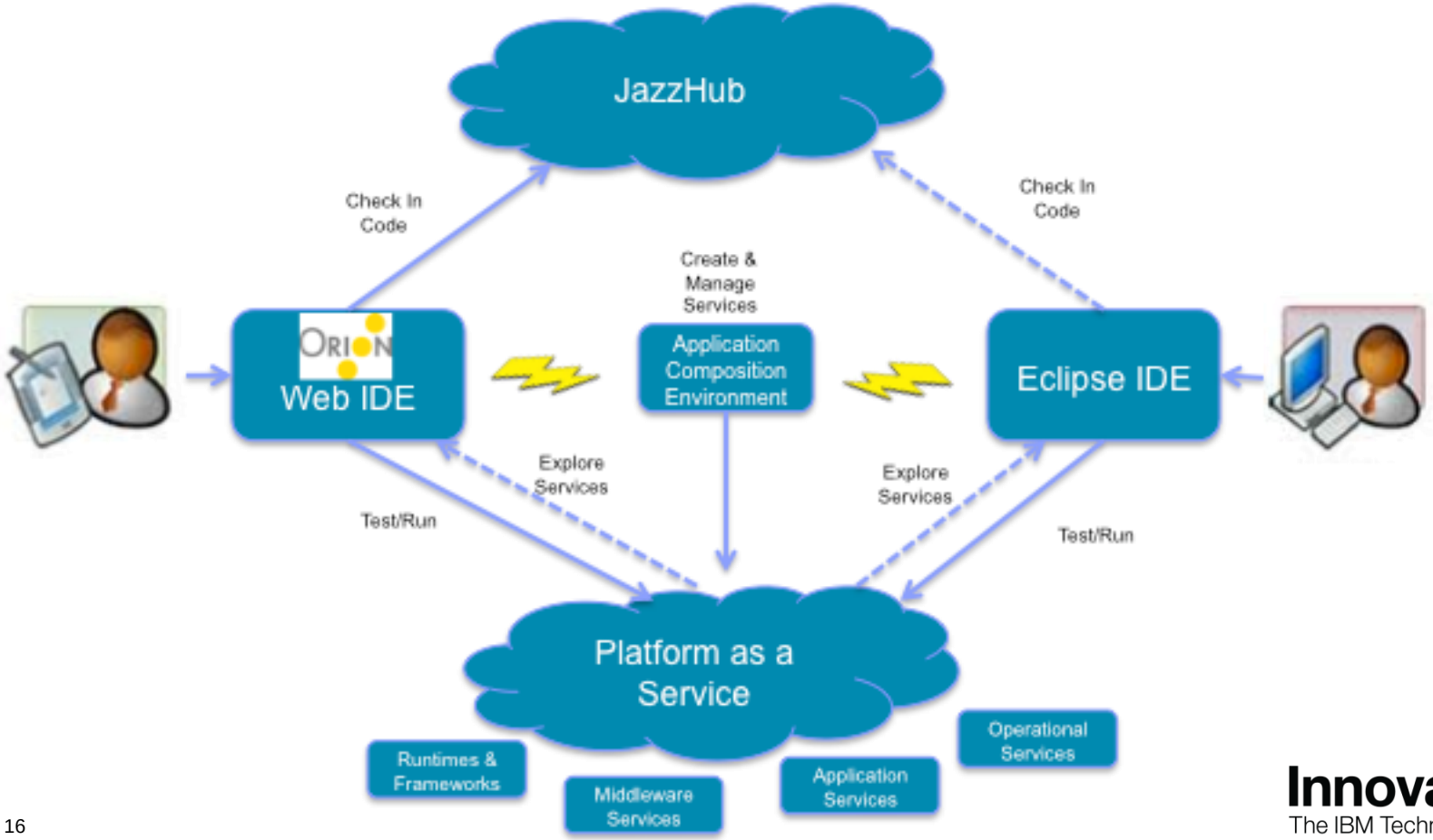
Developing in the Cloud, for the Cloud

- So now I can edit my code in the Cloud, in the context of a hosted RTC project
  - Wouldn't it be cool if I could deploy my code right from there to a Cloud runtime?!?!?



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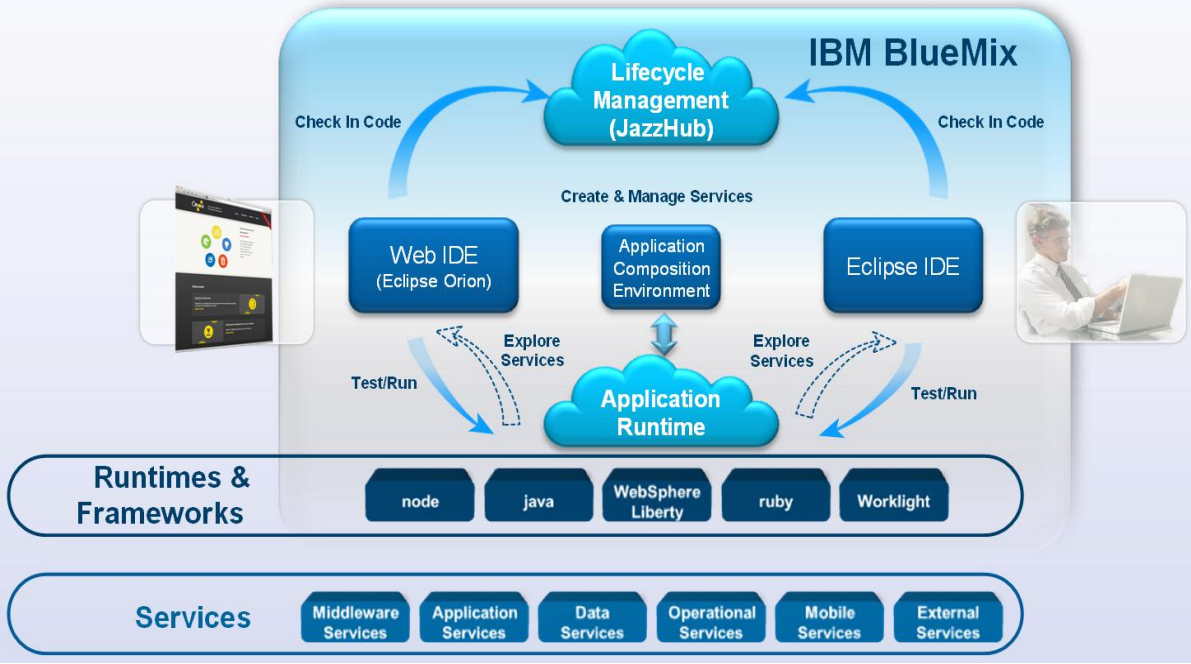
Introducing IBM BlueMix

Early Access Program*

What is IBM BlueMix?

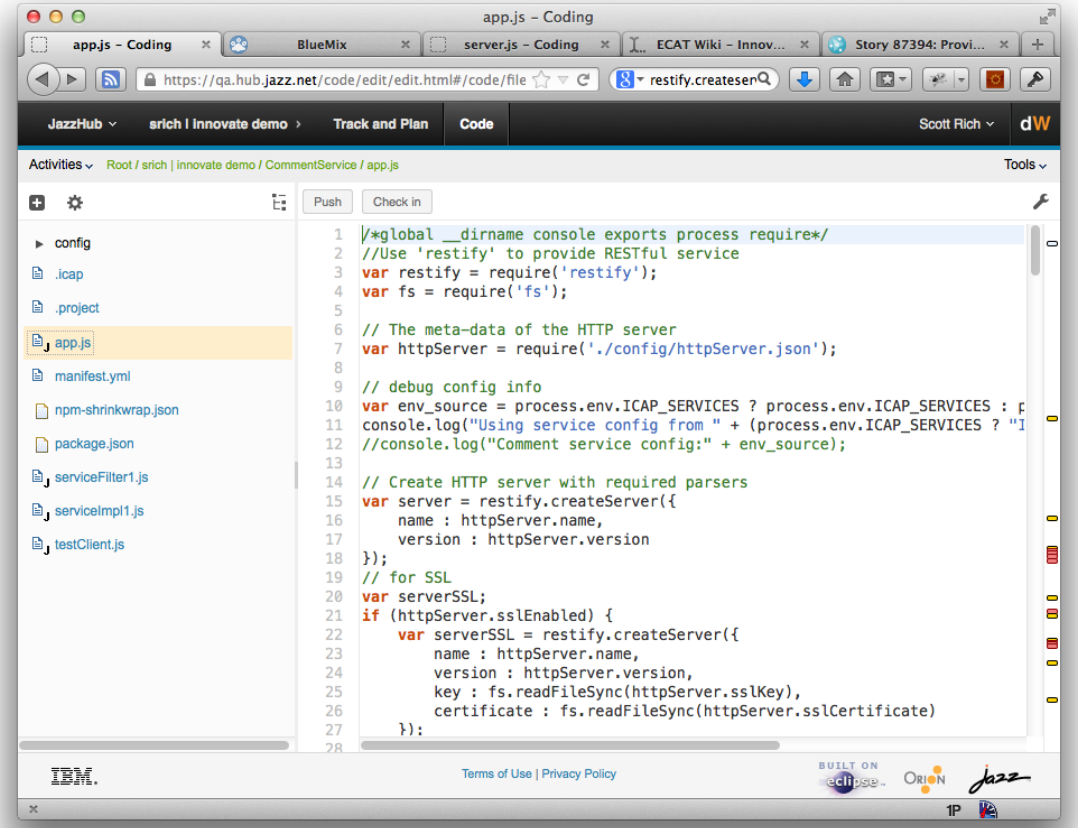
- An IBM initiative to develop an open cloud operating environment that encompasses runtimes, services, and tooling for "next gen" cloud application development
- Applications can be quickly composed from an extensible set of services from IBM and others
- Built-in support for Liberty and Worklight runtimes
- Streamlined rapid development and integrated DevOps with both Browser-based and Eclipse-based tools, backed by IBM's cloud-based developer offering, JazzHub
- We are inviting developers to join us and experiment with the Beta technology at BlueMix.net
- Cloud and on-premise offerings based on BlueMix are planned for 2014

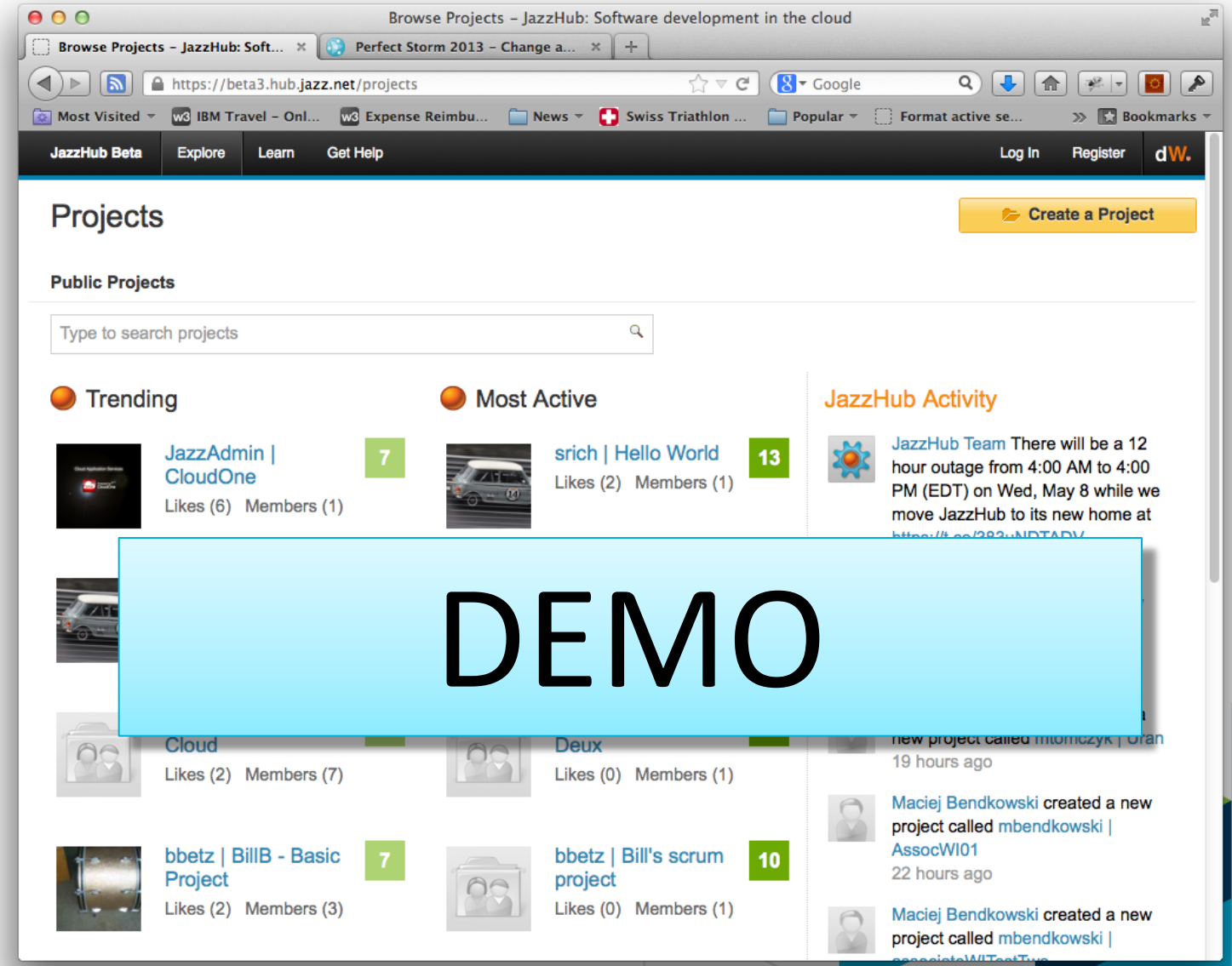


* Contact jstart@us.ibm.com for more information about the BlueMix.net early access program. See a demo at Integration Center peds IC-16 and IC-17. For more info on IBM's open cloud architecture see http://www.ibm.com/developerworks/cloud/library/cl-open-architecture/

Developing Your Cloud Application in the Browser

- JazzHub developers can work on their code right in the browser
- Powerful Orion-based source code editor
- Integrated with JazzHub SCM
  - organize changes and accept and deliver with your team from the browser
- One click away from your JazzHub project's tracking and planning
- Integrated with the runtime Cloud
  - Push an update right from the editor
  - Or drop into the shell for more control





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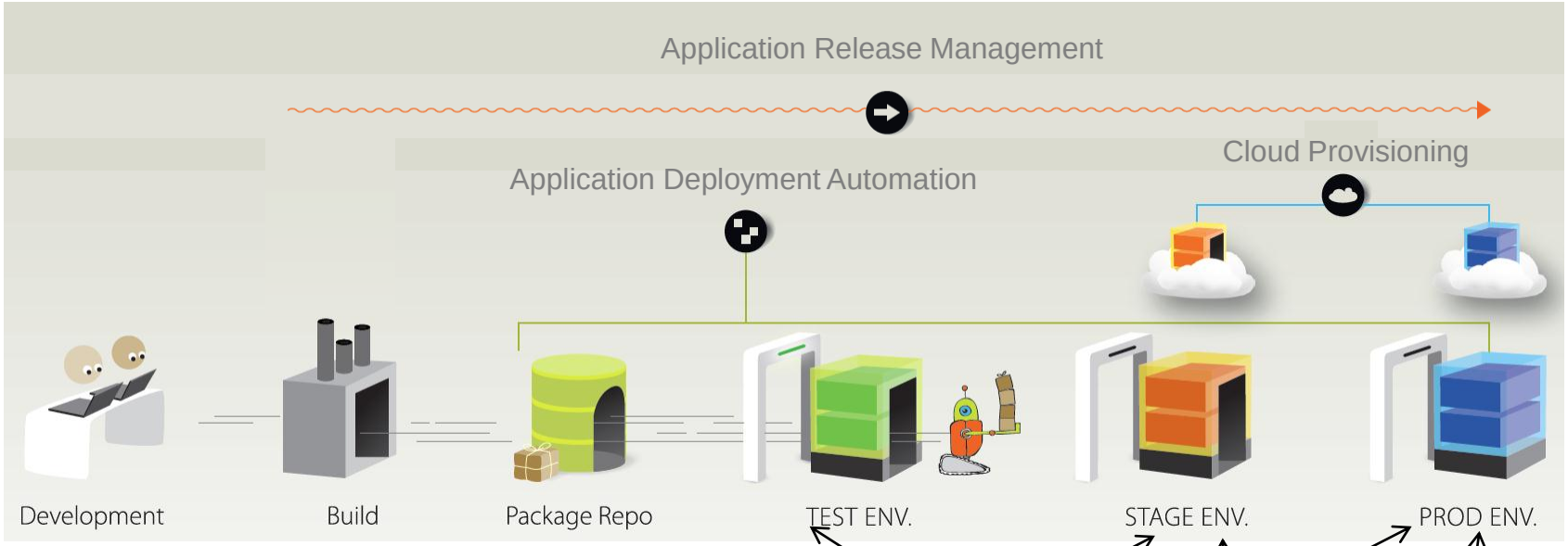
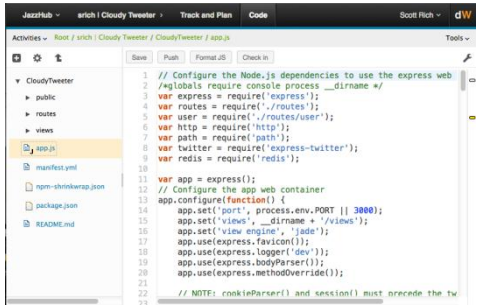
Orion in a Future DevOps Tool Chain for the Cloud



Edit code

Edit infra as code

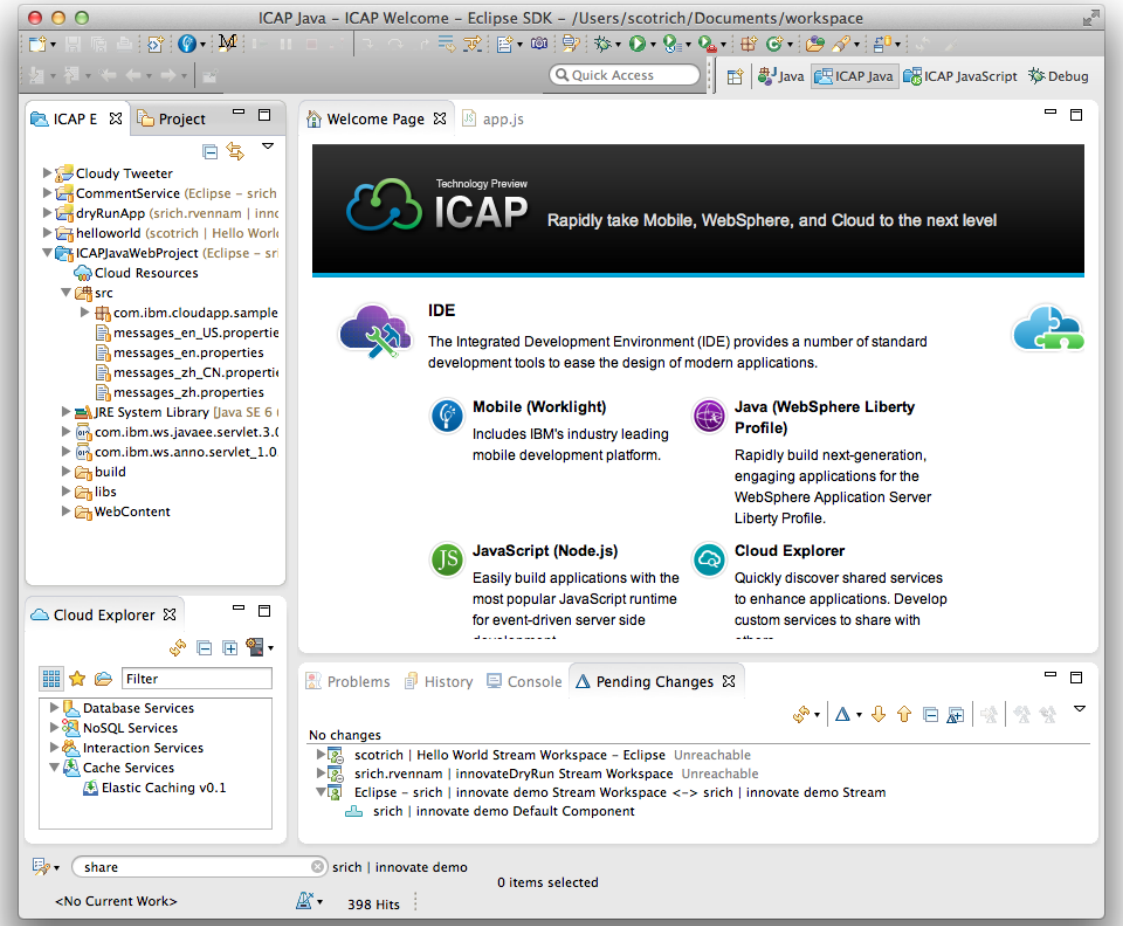


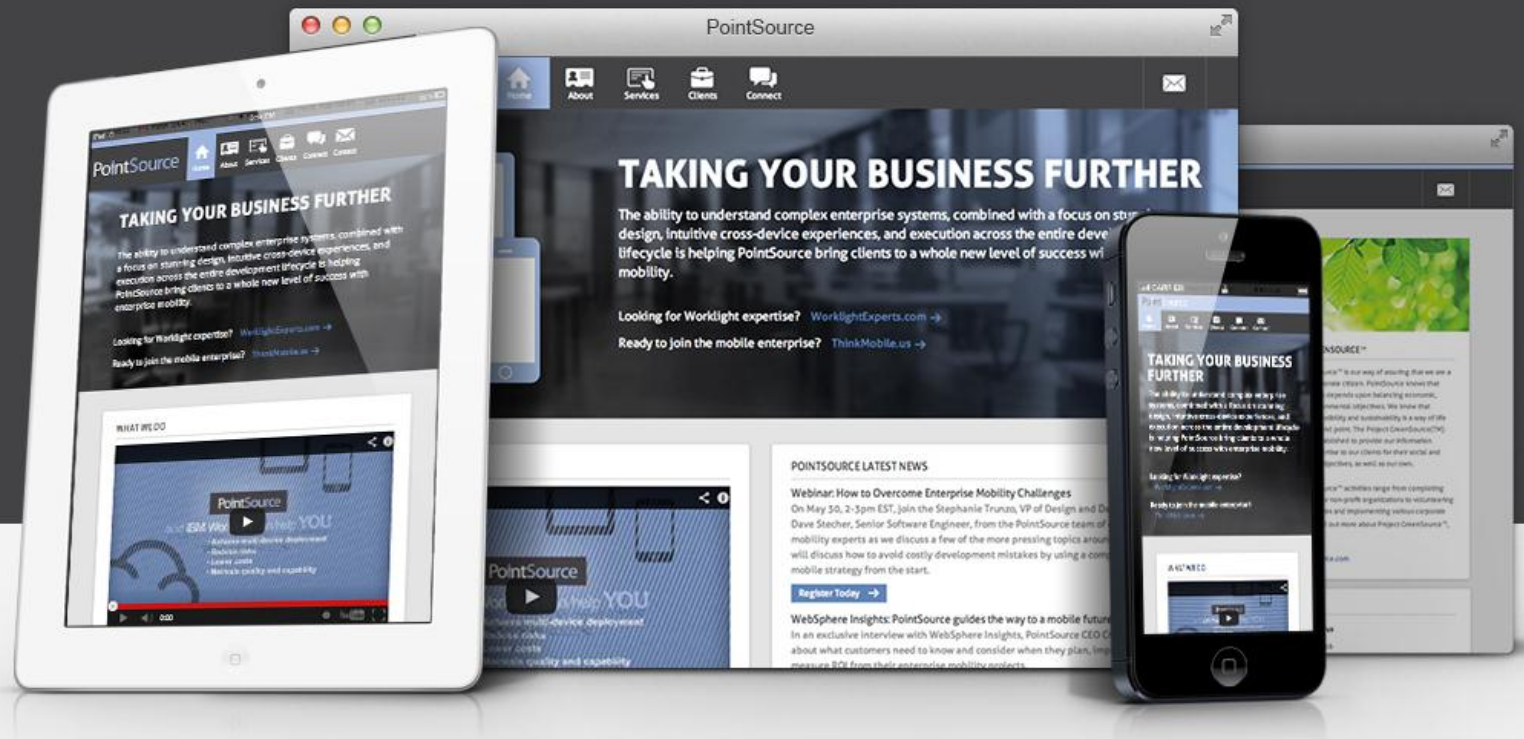
Deployment/Ops shell

ORION

Developing Your Cloud Application in Eclipse

- Eclipse developers can connect to JazzHub and develop using IBM's Icap tooling
- Cloud Explorer for application composition
  - Drag/drop service composition
- Local sandbox for debug and testing
- Local sample services
- (in progress) Deploy from local Development env to BlueMix cloud





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WHY Develop in the Cloud?

- **Speed of time to market critical in mobility**
  - Get projects running in hours, not weeks
- **IT budgets often overspent, or mobile strategy owned by non-IT org (CMO office for example)**
  - Direct cost savings over traditional local systems
  - Indirect cost savings to us and client through better project management, lifecycle support
- **Supporting the full development lifecycle often not a priority… until it is**
  - SaaS tools enable us to deliver higher quality, and better ongoing support environments
- **Consulting/services with clients requires collaboration and hand-offs**
  - Collaboration improves when technology is frictionless
  - Solve distributed connectivity issues
  - Runs efficiently multi-tenant for different businesses or business units
  - Onboarding and handing off solutions far more efficient

Why we Love JazzHub

- Transparent development and planning
- Up and running in 5 minutes
- Immediate collaboration
- Enable example code; point customers to see value
- Simple on-ramp to get clients started with development tools

PointSource projects in JazzHub:

- PS Whiteboard
- Major retail B2C storefront
- Major insurance sales center B2B
- Internal development and design work
- PS.SDK

JazzHub partner for mobile development lifecycle

www.PSWhiteboard.com

PS Whiteboard

Capabilities:

- Capture your ideas **elegantly in a free solution**
- Import or capture a photo or document and sketch on top of that to mockup drawings or wireframes and designs
- Save and share for continued collaboration

Industry applications:

- Insurance claims adjusters may take photos of damage and take notes about the damage
- Doctors can make notes on x-rays
- Product engineers can quickly sketch on existing schematics
- Kids can even draw funny faces on their pets, or they can let their imagination go wild with freeform drawing

Worklight:

- Created to aid in our own creative processes by a **small team of our talent using IBM Worklight**
- **Within 2 weeks from PoC we had a production-ready, cross device solution**
- Built in Worklight using jQuery, Backbone, and Bootstrap. Apache Cordova was used to integrate with the native device camera and photo album

JazzHub
@JazzHub
#JazzHub is a place where you can collaborate with others to seamlessly plan, track, and develop software in the cloud.
Worldwide · hub.jazz.net

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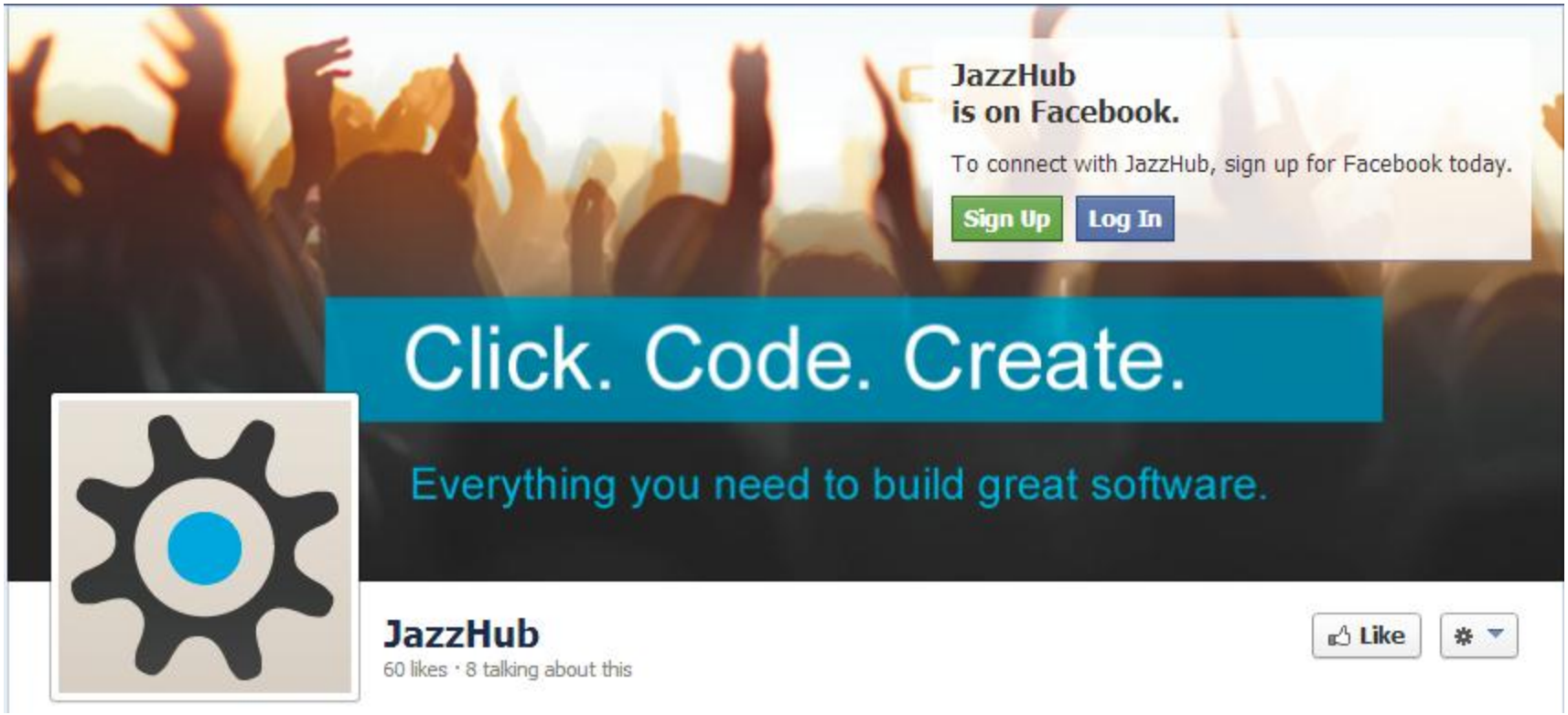
Zurich, Switzerland · zuriches.shutterfly.com

https://www.facebook.com/jazzhub



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