IBM Bluemix
Digital Innovation Platform

Overview for MS Hackathon
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Cloud Software
The rate of innovation is exponential.

“Two guys in a Starbucks can have access to the same computing power as a Fortune 500 company.”

Jim Deters - Founder, Galvanize
What is BlueMix?
Create, Deploy, Manage
Your applications in the cloud

Build modern apps that thrive on data
Tap into services such as mobile, Watson and Internet of Things to build apps that will exceed and define the next wave of user expectations

Easily & securely leverage your existing APIs, services and data
Move forward with real impact by leveraging the systems and processes your business runs on today

Foster a culture of continuous innovation & delivery
Use cloud services as a way to unleash the creativity within your company

GET STARTED FREE
Platform as a Service

Benefits
Setup environments and deploy apps very quickly. Infrastructure and platform managed by SP.

Time Commitment
Minutes to setup and deploy. Focus on your apps and their data.

IBM Bluemix

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Time to initial deployment

- **Core IT**
  - ~ Weeks
- **IaaS**
  - ~ Minutes

- Customer Managed
- Service Provider Managed

- Code
- Data
- Runtime
- Middleware
- OS
- Virtualization
- Servers
- Storage
- Networking
How does Bluemix work?

Bluemix is also built on 3 key open compute technologies: **Cloud Foundry**, **Docker**, and **OpenStack**.

It extends each of these with a growing number of **services**, robust **DevOps tooling**, integration capabilities, and a seamless **developer experience**.
Watson: cognitive computing

Understand natural Language

Create and checks hypotheses

Adapts and learns
Only 20% of data is visible to computers

80% is invisible
IBM Watson Developer Cloud

- Cloud based services
- REST APIs easily incorporated into other applications and offerings
- Quick time to value, minutes to deployment and first use

Watson Services

Cognitive Computing – IBM Watson

Watson Starter Kits – some examples

Questions on the Natural Language Classifier

- This application shows how to build a question-and-answer application using a small amount of training data, and demonstrating best practices for using the services.

- SERVICES USED
  - Natural Language Classifier

- Open App
- View Code
- Read Docs

News Explorer

- Automatically construct a news information network and present large volumes of news results in an understandable fashion.

- SERVICES USED
  -AlchemyData
  -News

- Open App
- View Code

Speech to Speech

- Attempting to break language barriers, this app uses three Watson services to translate your speech instantly and speak the translation aloud in a foreign language.

- SERVICES USED
  -Speech to Text
  -Language Translation
  -Text to Speech

- Open App
- View Code

Let’s *see* it!

*click*

**IBM Bluemix**
The Digital Innovation Platform

GET STARTED FREE

BUILD  EXTEND  SCALE  INTEGRATE  FEATURED

Build your apps, your way.

Use a combination of the most prominent open-source compute technologies to power your apps. Then let Bluemix handle the rest.

**Instant Runtimes**
App-centric runtime environments based on Cloud Foundry.

**Containers**
Portable and consistent delivery of your app without having to manage an OS.

**Virtual Machines**
Get the most flexibility and control over your environment with VMs.
Bluemix in numbers (2015)

1B+  API calls per day

2,000+ New users per day

Largest Cloud Foundry deployment

112,000+ Application starts per month
Continuous Innovation & Delivery

Fit for an enterprise, the DevOps experience is unified and open across compute technologies, Bluemix delivery methods, and integrated systems.
IBM Mobile Services

Core services that just about every App needs

Core App & Platform Services
- Push
- Increase User Engagement with Mobile Push Notifications
- Cloudant
- The Ultimate Data Store for Mobile Apps
- Mobile Client Access
- Simplified Mobile App User Authentication
- StrongLoop Arc
- Enterprise Node.js to build, deploy, scale, manage and deploy your mobile APIs

Capabilities to manage the lifecycle of your Apps

App Lifecycle Services
- Mobile App Server
  - Manage, secure, and optimize enterprise mobile apps
- AppScan Mobile
  - Analyzer
  - Identify Mobile App Security Exposures
- Mobile Quality Assurance
  - Continuously Improve Mobile User Experience

Capabilities to enable apps to make users more productive based on context

Contextual Services
- Mobile Content Manager
  - Create, manage, and deliver more relevant in-app content
- Presence Insights
  - Enables Apps with Intelligent Mobile Location Data
Internet of Things Foundation
Set up and manage your connected devices so all your app’s can access the data

http://discover-iot.eu-gb.mybluemix.net/

Your device or gateway
We start with your device, be it a sensor, a gateway or something else. To find out how to get it connected, search our recipes.

Your device data is sent securely up to the cloud using the open, lightweight MQTT messaging protocol.

REST & Real-time APIs
Use our secure APIs to connect your apps with the data coming from your devices.

IBM Internet of Things Foundation
This is the hub of all things IBM IoT. This is where you can setup and manage your connected devices so that your apps can access their live and historical data.

Your application and analytics
Create applications within IBM Bluemix, another cloud, or your own servers to interpret the data you now have access to!
What are customers doing with Bluemix

**Startups**
- Instantaneous productivity
- Start small, grow infinitely
- Sophisticated, consumable services
- Marketplace

**Enterprises**
- Enterprise Fit
- Differentiating Content
- Cultural Transformation
- Path to a new way to work
How do I get started? Sign up in minutes.

• **30 day trial (no credit card required)** - Designed to allow testing of an entire application on the platform

• **Free tier for every service** - encourages experimentation of new services for applications already running on Bluemix

https://console.ng.bluemix.net/registration
Help? – Slack Channel

Register at:
http://mshackathon.eu-gb.mybluemix.net/
Innovate with Speed
IBM Design & Garage Method

Start with a disruptive idea
Experiment & Design
Unleash the power of Bluemix
Integrate with what you have today

https://www.ibm.com/devops/method/
Bluemix Training Materials

• Bluemix DW001 training
  https://developer.ibm.com/dwcourses/courses/IBM_developerWorks/DW001/2015_summer/about

• IBM Developerworks

Getting Started with IBM Bluemix  IBM.developerWorks

REGISTER FOR DW001

Quick-start demos

Explore IBM Bluemix
In this guided demo, David Barnes shows how to start developing and deploying applications using the latest Bluemix services.

Using Cloud Foundry runtimes
David Barnes shows how to develop, run, and manage code with the many Cloud Foundry runtimes supported in Bluemix.

The Bluemix user experience
Load Bluemix Designer Team Gangesha walks you through the Bluemix interface, and shows how to build your first application in minutes.
THANK YOU

QUESTIONS?