



# IBM Software Training

## IBM Cloud

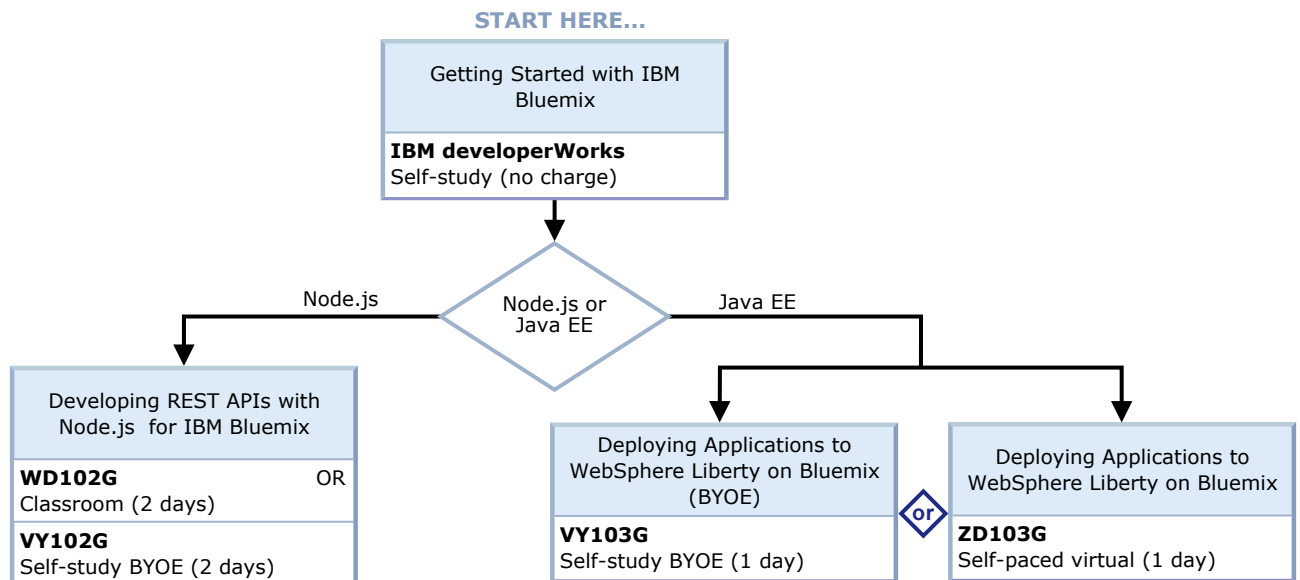
### Skills for Developer of Applications on Cloud

#### 1 Developing applications on cloud

##### Objectives

After completing this step, students should be able to:

- Install and configure the Liberty profile by using the WebSphere Development Tools
- Use WebSphere Development Tools to deploy applications to a server
- Create and configure Liberty profile servers
- Use the Administration Center to manage Liberty servers
- Deploy applications by adding configuration elements and by using a monitored directory
- Configure data sources and application security
- Configure applications resources such as JMS messaging and JPA
- Create a Liberty profile server
- Explain the purpose and scope of the IBM SDK for Node.js framework
- Build a web application as a JavaScript function
- Enable features with npm, the Node module package framework
- Build a web application with the Express framework



##### Supplemental resources

- 1 Getting Started with IBM Bluemix: Web Application Hosting Scenario on Java Liberty
- 2 Getting started with WAS Liberty in the cloud
- 3 Top 5 Bluemix tutorials for WebSphere
- 4 Debug and publish Java applications to Liberty on Bluemix

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## 2 Application design for cloud

### Objectives

After completing this step, students should be able to:

- Cloud service models and IBM Cloud offerings
- The features, components, capabilities, and architecture of IBM Bluemix
- How to implement cloud-ready applications -- how to design, manage, scale, debug, and monitor Bluemix applications
- How to enhance cloud applications by using managed services (data and session cache, external authentication, messaging, cognitive APIs, and object storage)
- How to manage applications with DevOps Services (agile planning, web code editor, source code management, and continuous integration and delivery)
- The types and features of data services available in Bluemix and how to manage instances of them

Cloud Application Developer  
Certification Preparation

**IBM developerWorks**  
Self-study (no charge)

### Certification test

See certification Web site  
for test preparation

### Test C5050-285

IBM Certified Application  
Developer - Cloud Platform v1



Developing Cloud-Native  
Applications

**CK102G**  
Classroom (2 days)

## 3 Migrate applications to cloud

### Objectives

After completing this step, students should be able to:

- Learn migration strategies
- Migration applications to cloud
- Enhance application for cloud
- Describe and use the WebSphere Migration Strategy tool
- Describe and use the Migration Discovery tool
- Use the Migration Toolkit for Application Binaries to generate four types of reports used for initial application evaluation and to size migration effort
- Analyze issues found the Eclipse-based Migration Toolkit at a more detailed level including previewing and applying quick fixes
- Migrate configuration information using WebSphere Configuration Migration Tool

Migrating Applications to Cloud

**CK100G**  
Classroom (2 days)

Integrating Cloud Applications

**CK101G**  
Classroom (2 days)

IBM WebSphere Application  
Server Migration Toolkit V9

**DL09001G**  
Web-based (5 hrs, no charge)

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## **4 (optional) Developing mobile applications**

### **Objectives**

After completing this step, students should be able to:

- Develop, test, secure, and deploy mobile applications
- Introduction to MobileFirst for iOS on Bluemix
- Setting up your development environment
- Creating an iOS app on Bluemix
- Creating an iOS app on Bluemix
- Using IBM MobileFirst on Bluemix to access Cloudant

Proceed to training path:  
[A: See mobile application developer training path](#)

**A**

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## **5 (optional) Using APIs**

### **Objectives**

After completing this step, students should be able to:

- Identify the role of IBM API Management in the case study
- Create an API Management service on Bluemix
- Design REST APIs in the Swagger 2.0 format
- Define APIs and plans in the API Manager web interface
- Define proxy and component assembly implementations of API operations
- Test APIs in API Manager
- Create revisions of plans and APIs
- Secure an API implementation
- Publish plans and API resources to the IBM API Management Developer Portal
- Access APIs on the IBM API Management Developer Portal
- Analyze API usage and statistics

Proceed to training path:  
[B: See IBM API Connect training path](#)

**B**

Connect your IBM WebSphere  
apps and  
data to the IBM Cloud

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## **6 (optional) Explore microservices**

### **Objectives**

After completing this step, students should be able to:

- Gain a thorough understanding of Microservices, the architecture for cloud applications, focused on small autonomous services that work together
- Understand how to refactor, design and develop applications and use Microservices Frameworks
- View components of the BlueCompute application, which is an IBM reference architecture for microservices
- Take the Microservices Essential quiz and obtain the badge!

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Microservices Best Practices  
for Java

**SG24-8357-00**  
Redbook

Getting Started with IBM  
Microservices Builder

Proceed to Learning Journey:  
[C: See Learning Journey for Microservices](#)

**C**