

# RX-M - Microservice Architecture Essentials for IBM Cloud

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<b>Code:</b>	CN2-MAE-BM
<b>Length:</b>	3 days
<b>URL:</b>	<a href="#">View Online</a>

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This intensive three day hands-on course is designed to provide working developers, devops staff and other technology professionals with a comprehensive introduction to microservices and Microservices Application Architecture on IBM Cloud. Attendees will leave with a clear understanding of microservices and how to maximize them in cloud native systems such as IBM Container Service. Students will gain hands on experience working with microservices in a range of labs using several key IBM Cloud platform services. The course covers the benefits of container based microservice packaging and use of registries as well as dynamic application management using Kubernetes on IBM Cloud. Attendees will examine various use cases and architecture patterns for microservice based applications throughout the course, with focused discussion on microservice communications, transactions and state management. Upon completion of the course attendees will have the skills and information necessary to begin designing and working with microservice based applications.

## Skills Gained

- This course is designed to provide engineering staff with a comprehensive overview of Microservices and Microservices Application Architecture (MSA) on IBM Cloud.

## Who Can Benefit

- Developers, Architects, Engineering Managers and DevOps personnel

## Prerequisites

- Because the course focuses on microservice properties and design, no particular programming language expertise is required though attendees should have experience with at least one programming language. All students will need to be able to run the 64 bit lab VM.

## Course Details

### Microservice Architecture Essentials for IBM Cloud

- Day 1 - Core Concepts
  1. Microservice Overview
  2. Lab: Microservice Hello World
  3. Microservice Communications I - Client/Server
  4. Lab: REST APIs
  5. Container Packaging
  6. Lab: Using Docker and IBM Cloud Container Registry
- Day 2 - State

1. Microservice Communications II - Messaging
2. Lab: Creating high performance RPC APIs
3. Cloud Native Transactions and Event Sourcing
4. Lab: Building event driven services with IBM Message Hub
5. Stateless Services and Polyglot Persistence
6. Lab: Managing state with IBM Cloudant

- Day 3 - Microservices in Practice

1. Microservice Orchestration
  2. Lab: Deploying services with IBM Cloud Container Service
  3. FaaS/Serverless
  4. Lab: Creating serverless solutions with IBM OpenWhisk
  5. API Gateways
  6. Lab: Using the IBM API Gateway
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