



JAVA TRAINING

Java Develop Rest Based Microservice Course Oci

Master Java REST microservice development for OCI. Build robust, scalable cloud-native applications with confidence.

DURATION

8 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intermediate-level "Java Develop REST Based Microservice Course OCI" is designed for Java developers eager to master the art of building robust, scalable, and resilient microservices. You will delve into the core principles of microservices architecture, understand how to design and implement RESTful APIs using modern Java frameworks like Spring Boot, and gain hands-on experience in developing loosely coupled services that can operate independently and efficiently. The course emphasizes best practices for developing high-performance services ready for enterprise environments. Beyond development, a significant portion of this training focuses on the deployment and management of your Java-based microservices within the Oracle Cloud Infrastructure (OCI). You will learn how to leverage OCI's powerful services for containerization, orchestration, and continuous delivery, ensuring your applications are not only well-built but also seamlessly integrated and performant in a cloud-native ecosystem. By the end of this intensive 8-hour program, you'll be equipped with the practical skills to architect, develop, and deploy cloud-native microservices, significantly enhancing your value as a backend or cloud developer.

Duration	8 hours
Level	Intermediate
Vendor	Java

COURSE CURRICULUM

01 Module 1: Introduction to Microservices & RESTful Principles

- Understanding Microservice Architecture vs. Monoliths
- Key Characteristics and Benefits of Microservices
- Introduction to REST and RESTful API Design Principles
- HTTP Methods, Status Codes, and Idempotency
- Statelessness and Resource-Based Design

02 Module 2: Developing RESTful Services with Spring Boot

- Setting Up Your Spring Boot Project for Microservices
- Creating REST Endpoints and Controllers
- Request Mapping, Path Variables, and Request Parameters
- Handling JSON Data with Spring Boot (Jackson)
- Introduction to Spring Data JPA for Database Interaction

03 Module 3: Data Persistence and Error Handling

- Configuring Databases (H2, PostgreSQL) with Spring Boot
- Implementing CRUD Operations with Spring Data JPA
- Designing and Implementing Custom Repository Methods
- Global Exception Handling for REST APIs
- Validation of Request Payloads

04 Module 4: Microservice Patterns and Security Basics

- Service Discovery (e.g., Eureka, Consul concepts)
- Circuit Breakers and Resilience Patterns (e.g., Resilience4j concepts)
- Implementing Basic Authentication and Authorization (Spring Security Overview)
- Testing RESTful Microservices (Unit and Integration Testing)

Module 5: Deploying Microservices on Oracle Cloud Infrastructure (OCI)

05

- Introduction to OCI Services for Developers
- Containerizing Java Microservices with Docker
- Pushing Docker Images to OCI Container Registry
- Deploying and Managing Microservices using OCI Container Engine for Kubernetes (OKE)
- Monitoring and Logging Microservices on OCI

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Java Microservices Developer**
- > **Cloud-Native Backend Engineer (OCI Specialist)**
- > **API Integrator and Architect**

FREQUENTLY ASKED QUESTIONS

Q: What prior Java experience is required to effectively participate in and benefit from this 'Java Develop REST Based Microservice Course OCI'?

This course is designed for intermediate-level Java developers. Participants should have a solid understanding of core Java concepts, including object-oriented programming, collections, multithreading basics, and experience with Maven or Gradle. Familiarity with basic web development concepts and relational databases is also highly recommended, though prior experience with Spring Boot or OCI is not required as these will be covered.

Q: How will this course specifically enhance my ability to design and deploy scalable microservices on Oracle Cloud Infrastructure, distinguishing it from generic microservices training?

Unlike generic courses, this program places a significant emphasis on practical deployment within OCI. You will not only learn to build Java-based RESTful microservices using Spring Boot but also gain hands-on experience in containerizing them with Docker, pushing images to OCI Container Registry, and orchestrating them effectively using OCI Container Engine for Kubernetes (OKE). This integrated approach ensures you can not only develop but also successfully operationalize your microservices in a real-world cloud environment.

Q: Beyond developing basic REST APIs, what advanced microservice architecture patterns and resilience strategies will I master that are crucial for enterprise-grade OCI deployments?

While foundational REST API development is a core component, this course extends into critical advanced microservice patterns essential for enterprise OCI deployments. You will gain conceptual understanding of service discovery mechanisms and explore resilience patterns like circuit breakers, which are vital for building fault-tolerant and highly available systems in a distributed cloud environment. The practical application of these concepts will be discussed in the context of ensuring robust performance for your Java microservices within OCI.

ABOUT COMPUTER PRIDE

**computerpride*****East Africa's Premier IT Training Center***

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke