



# Microservices Architecture Training Curriculum

## STRUCTURE



## Microservices Architecture Training Curriculum

*“Give an edge to your career with Microservices Architectural Training Course at Croma Campus.”*

### **About Croma Campus:**

Croma Campus Training & Development Private Limited is an education platform since 2010 providing rigorous industry-relevant programs designed and delivered in collaboration with world-class faculty and industry.

- Hands-On Live Projects
- Simulation Test Papers
- Industry Cases Studies
- 61,640+ Satisfied Learners
- 140+ Training Courses
- 100% Certification Passing Rate
- Live Instructor Classroom / Online Training
- 100% Placement Assistance

### **Course Objectives:**

- Understand and differentiate between various Microservices Architectural Styles
- Apply Microservices Architecture principles
- Know how to make the appropriate Microservice Architecture decision
- Know how to develop and test a Microservice
- Know what technologies can be used to enable Microservices with an example.

### **Course Description:**

Microservices Architecture Training introduces you to the concept of Microservices that are small, lightweight, process-driven components. So, Microservices are the next important thing in designing scalable, easy-to-maintain applications. This not only makes application development easier but also offers great flexibility and lets you utilize various resources optimally. If you want to build an enterprise-ready implementation of the Microservices architecture, then this course is the first step for you!

In this Microservices Architecture training, we will start by giving you a deep understanding of the core Microservices concepts and principle with insight in how they have evolved. We will walk you through the complete life cycle - from design to development to testing; including cross-layer concepts such as how to secure Microservices.

### **Croma Campus Training Program Deliverables:**

- **Session Recordings** - Original Class Room Voice & Video Recording
- **Training Material** - Soft Copy Handbooks
- **Assignments** | 25+ Hands-on Exercises
- **Test Papers** - We provide **Practice Test** as part of our course to help you prepare for the actual certification exam.
- **Live Case Studies**
- **Live Projects** - Hands-on exercises and Project work. You will work on real time industry-oriented projects and assignments for each module to practice.

- **Key focus on Hands-on exercises and Project work.** You will work on real time industry-oriented projects.
- Faculty with more than **10+ Years of Experience** in the Industry.
- **Technical Resume Designing & Job Assistance:** With more than 100+ Clients across the Globe and we help learners to get a good job in their respective field. We also help learners with resume preparation.
- **Interview Q&A**
- **About Croma Campus Training Certificate:** Croma Campus will provide you with an industry-recognized (Certified by **ISO 9001:2015 & E-Cell IIT Jodhpur**) course completion certificate which has lifelong validity.
- **How I Unlock my Croma Campus Certificate:** Attend Complete Batch & Submit at least One Completed Project.

## Course Content:

### Module 1: Evolution of Microservices

- Monolithic Architecture
- Distributed Architecture
- Service oriented Architecture
- Microservice and API Ecosystem
- Microservices in nutshell
- Point of considerations
- SOA vs. Microservice
- Microservice & API

### Module 2: Microservices Architecture

- REST Architecture principles
- Microservice Characteristics
- Inter-Process Communications
- Microservice Transaction Management

### Module 3: Microservices Design

- Domain Driven Design
- Big Mud Ball to Sweet Gems
- Untangling the Ball of MUD
- Kill the MUD Ball growth
- Repackaging/Refactoring
- Decouple the User interface and Backend Business Logic
- MUD Ball to Services
- Microservice Design Patterns
- Microservice Architecture Decisions

### Module 4: Microservices Security

- Why is Security important?
- Microservice Security Principles
- Microservice Security techniques
- Access Tokens
- OAuth 2.0

- How to secure a Microservice using OAuth 2.0?

### **Module 5: Microservices Testing**

- Testing scenarios and strategy
- Test at Different Levels
- Testing Best Practice for Microservices
- Testing methodology
- How to test Microservices?

### **Module 6: Microservices Reference Architecture**

- Reference Architecture
- Microservice Enabler
- Microservices @ Netflix
- Reading properties in various ways
- Implementing config server
- Setting up Discovery Server
- Setting up Discovery Client
- Overview of Actuator Endpoints
- API Gateway and Dynamic Routing
- Declarative Rest Client
- Hystrix Fault Tolerance
- Distributed Caching
- Distributed Sessions
- Need for Event Driven Systems
- Building Event Driven Systems
- Implementing Distributed Tracing
- Understanding Metrics
- Monitoring Microservices
- Spring Boot Admin

### **Module 7: Placement Guide**

- Tips to clear an Interview
- Common Interview questions and answers
- Microservices Interview Questions and Answers
- Resume Building Guide
- Career roadmap and certifications
- Attempt for related Global Certification Exam
- Start applying for Jobs