

**Microservices Architecture**

**Training Curriculum**

**STRUCTURE**

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**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