

Building Microservices Course

Course Duration : 40 Hours

Course code : MS-ARC-938

1. Course Overview

The Building Microservices Course is designed to help learners understand and implement microservices architecture for modern application development. This course focuses on breaking down large monolithic systems into smaller, independent services that can be developed, deployed, and scaled efficiently.

2. What you'll learn?

- Microservices architecture fundamentals
- Service design and decomposition
- API communication and integration
- Event-driven architecture
- Containerization basics (Docker)
- Deployment and scaling strategies

3. Target Audience

- Software developers and engineers
- Backend and full-stack developers
- DevOps professionals
- Cloud engineers
- IT professionals working on scalable systems

4. Pre-Requisites

- Basic knowledge of programming
- Understanding of web development concepts
- Familiarity with APIs (recommended)
- Basic understanding of cloud computing

5. Course Content (Modules)

Module 1: Introduction to Microservices

- Monolithic vs microservices
- Benefits and challenges
- Architecture principles

Module 2: Service Design & APIs

- Service decomposition
- API design principles
- API gateway concept

Module 3: Communication & Data Management

- Synchronous vs asynchronous communication
- Messaging systems
- Database per service

Module 4: Containers & Deployment

- Introduction to Docker
- Container orchestration basics
- Deployment strategies

Module 5: Monitoring & Best Practices

- Logging and monitoring

- **Performance optimization**
- **Security and best practices**

