

Microservices: Design, Integration & Deployment

Learn to design, integrate, and deploy microservices, from decomposing monoliths to monitoring services in production.

6

MODULES

16

TOPICS

COURSE OVERVIEW

This course examines the emergence of microservices architecture and how it compares with fine-grained service-oriented approaches. It covers principles for designing small, independent, and resilient microservices, along with approaches for integrating them through effective message formats and communication patterns. It reviews technologies that support microservices development, deployment, and support, and describes patterns and practices for decomposing monolithic applications. It closes by looking at deploying and maintaining microservices using virtual, cloud, and containerized environments, and monitoring them for scaling and system faults.

WHO THIS COURSE IS FOR

Software Architects

Software Developers

DevOps Engineers

System Integrators

Application Modernization Teams

LEARNING OBJECTIVES

- Explain the ideal software development practice behind microservices
- Compare fine-grained SOA with microservices approaches
- Apply principles for designing small, independent microservices
- Identify effective message formats for service communication
- Evaluate pros and cons of various service communication patterns
- Describe technologies supporting microservices development
- Plan the decomposition of a monolithic application
- Assess practices for monitoring and scaling microservices

6 Modules, 16 Topics

01

The Emergence of Microservices Architecture

TOPICS

- Explore the ideal software development practice
- Learn how a fine-grained Service-Oriented Architecture (SOA) can help to achieve the ideal
- Learn how Microservices attempts to achieve the ideal

02

Microservice Design Principles

TOPICS

Designing small microservices · Designing independent microservices · Designing resilient microservices

03

Integrating Microservices

TOPICS

- Understand design goals when integrating microservices
- Explore effective message formats and lightweight inter-service communication approaches
- Review the pros and cons of various service communication patterns

04

Microservice Technologies

TOPICS

- Learn about popular technologies that enable the development, deployment, and support of microservices

05

Decomposing the Monolith

TOPICS

- Understand monolithic decomposition as an approach towards application modernization
- Review successful decomposition patterns
- Understand helpful practices when decomposing a monolithic application

06

Deploying and Maintaining Microservices

TOPICS

- Explore the intersection of DevOps and microservices
- Learn to leverage virtual, cloud, and containerized environments for microservice deployment
- Discover how to monitor a microservices environment and take appropriate action to enable scaling or react to system faults

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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