



# Training Course: Introduction to Microservices Architecture

9 - 13 November 2025 Cairo (Egypt) Holiday Inn & Suites Cairo Maadi, an IHG Hotel

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# Training Course: Introduction to Microservices Architecture

Training Course code: SC235222 From: 9 - 13 November 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 3875 🛛 Euro

### Introduction:

The "Introduction to Microservices Architecture" training program provides participants with a comprehensive understanding of the concepts, principles, and benefits of microservices architecture. This program is designed to equip individuals with the knowledge and skills required to design, develop, and manage microservices-based systems effectively.

# **Target Audience:**

#### This program is suitable for:

- Software Developers
- System Architects
- DevOps Engineers
- IT Managers
- Project Managers
- Technical Leads
- Anyone interested in modern software architecture concepts

## **Objectives:**

Upon completing this program, participants will be able to:

- Define and explain microservices architecture principles and concepts.
- Understand the advantages and challenges of microservices.
- Design and implement microservices-based systems.
- Utilize containerization and orchestration technologies like Docker and Kubernetes.
- Establish effective communication and coordination between microservices.
- Monitor, test, and troubleshoot microservices applications.
- Apply best practices for security, scalability, and resilience in microservices.



## **Outlines:**

Day 1:

#### Introduction to Microservices Architecture

- What are Microservices?
- Comparing Microservices with Monolithic Architecture
- Key Principles of Microservices
- Advantages and Challenges
- Use Cases and Real-world Examples

#### Day 2:

#### Microservices Design and Development

- Designing Microservices
- Decomposition of Monolithic Applications
- Microservices Communication Patterns
- Containerization with Docker
- Hands-on: Creating Microservices with Docker

#### Day 3:

#### Microservices Orchestration with Kubernetes

- Introduction to Kubernetes
- Deploying Microservices on Kubernetes
- Scaling Microservices
- Service Discovery and Load Balancing
- Hands-on: Deploying Microservices with Kubernetes

#### Day 4:

#### Microservices Communication and Coordination



- API Gateways
- Asynchronous Communication
- Event-Driven Architectures
- Synchronous and Asynchronous Patterns
- Hands-on: Implementing Communication Patterns

#### Day 5:

Microservices Monitoring, Testing, and Best Practices

- Monitoring and Logging
- Testing Microservices
- Security in Microservices
- Resilience and Fault Tolerance
- Best Practices and Common Pitfalls
- Case Studies and Q&A



# Registration form on the Training Course: Introduction to Microservices Architecture

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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