



*Training Course:  
Introduction to Microservices Architecture*

*5 - 9 August 2024  
Venice (Italy)*

## Training Course: Introduction to Microservices Architecture

Training Course code: SC235222 From: 5 - 9 August 2024 Venue: Venice (Italy) - Training Course Fees: 5775 € 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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### Company Information

Company Name: .....  
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### Person Responsible for Training and Development

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### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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