€TRAINING

Software Architecture

19 - 23 May 2024
Istanbul (Turkey)
Sheraton Istanbul Levent

Software Architecture

Introduction:

Welcome to the 5-day training course on Software Architecture. In this course, we will cover the basics of software architecture, its importance, and how to design and implement software architecture. By the end of the course, you will have a clear understanding of software architecture and be able to apply it in your software development projects.

Course Objectives:

- Understand the fundamentals of software architecture
- Learn about the different types of software architecture patterns
- Know how to design and implement software architecture
- Understand the importance of software architecture in software development
- Learn about the best practices and principles of software architecture

Targeted Audience:

This course is intended for software developers, software architects, software engineers, and anyone who is interested in learning about software architecture.

Course Outlines:

Unit 1: Introduction to Software Architecture

- 1.1 What is Software Architecture?
- 1.2 Importance of Software Architecture
- 1.3 Role of a Software Architect
- 1.4 Types of Software Architecture
- 1.5 Software Architecture Frameworks

Unit 2: Software Architecture Patterns

- 2.1 Layered Architecture
- 2.2 Microservices Architecture
- 2.3 Service-Oriented Architecture SOA
- 2.4 Event-Driven Architecture EDA
- 2.5 Model-View-Controller MVC

Unit 3: Designing Software Architecture

- 3.1 Understanding Business Requirements
- 3.2 Identifying Stakeholders and Their Needs
- 3.3 Architectural Patterns and Principles
- 3.4 Designing a Scalable Architecture
- 3.5 Security and Performance Considerations

Unit 4: Implementing Software Architecture

- 4.1 Coding and Implementation
- 4.2 Code Quality and Best Practices
- 4.3 Testing and Validation
- 4.4 Refactoring and Evolution
- 4.5 Continuous Integration and Deployment CI/CD

Unit 5: Best Practices and Principles of Software Architecture

- 5.1 Separation of Concerns
- 5.2 Single Responsibility Principle SRP
- 5.3 Open-Closed Principle OCP
- 5.4 Liskov Substitution Principle LSP
- 5.5 Interface Segregation Principle ISP