

Java Design Patterns

Learn essential Java design patterns and understand their implementation in real-world projects.

Category: Programming · Duration: 1 day

WHO IT IS FOR

- Java developers
- Front-end developers
- Teams that want hands-on practice on real scenarios

This comprehensive course will cover the fundamental concepts of design patterns in Java, including creational, structural, and behavioral design patterns. Participants will gain hands-on experience in implementing and utilizing these patterns through practical exercises and real-world examples. By the end of the course, you will be able to design and develop robust and maintainable Java applications using various design patterns.

Prerequisites

Basic knowledge of Java programming language

Syllabus

- Introduction to Design Patterns
- Creational Design Patterns: Singleton, Factory Method, Abstract Factory
- Structural Design Patterns: Adapter, Composite, Decorator
- Behavioral Design Patterns: Strategy, Observer, Template Method
- Implementation of Design Patterns in Java
- Real-world Examples and Case Studies
- Best Practices and Design Patterns in Java Frameworks
- Design Patterns in Enterprise Java Applications
- Design Patterns in Multithreaded Programming
- Design Patterns for Unit Testing
- Design Patterns for Scalable and Modular Applications
- Design Patterns for Database Access
- Design Patterns for GUI Development
- Design Patterns for Web Applications

- Design Patterns in Object-Oriented Analysis and Design
- Design Patterns for Code Reusability
- Refactoring with Design Patterns
- Design Patterns for Error Handling and Exception Management
- Design Patterns for Performance Optimization
- Design Patterns in Legacy Code
- Design Patterns for Code Maintainability