

Object-Oriented Programming Principles and Design Patterns Eğitimi

Eğitim Hakkında

This course seeks to develop, for the experienced Java programmer, a strong, shared vocabulary of design patterns and best practices. The course begins with a discussion of how to recognize and apply design patterns - that is, how to incorporate pattern awareness into one's own analysis, design, and implementation practices. The main body of the course focuses on the Gang of Four design patterns, with a chapter each on creational, behavioral, and structural patterns. The course includes both pencil-and-paper design exercises and traditional coding labs to reinforce finer points of important patterns. This is not a patterns catalog: it is as much a study of how to "think in patterns" as it is an introduction to several of the most important patterns. Students will be challenged to bring their own previous development experience to the discussion, to see the patterns in everyday design and coding solutions. The course puts more emphasis on some patterns than others. We believe that students will be better served by going into several patterns in depth -- and with lively discussions of several others -- than by through every GoF pattern in rote form. The course also includes an optional "Chapter Zero" on some more basic practices in object-oriented concepts and OO factoring and re-factoring. Though not appropriate for all students, it may be helpful for some audiences with less real-world Java experience.

Neler Öğreneceksiniz

- Object-Oriented Refactoring
- Recognizing and Applying Patterns
- Creational Patterns
- Behavioral Patterns
- Structural Patterns
- J2EE Patterns

Eğitim İçeriği

Module 1 - Object Design Fundamentals

Module 2 - OOP Principles and Design Patterns

Module 3 - Interface Patterns: Adapter, Facade, Composite, Bridge

Module 4 - Responsibility Patterns: Singleton, Observer, Mediator, Proxy, Responsibility, Flyweight

Module 5 - Construction Patterns: Builder, Factory Method, Abstract Factory, Prototype, Memento

Module 6 - Operation Patterns: Template Method, State, Strategy, Command, Interpreter

Module 7 - Extension Patterns: Decorator, Iterator, Visitor