

SOLID Principles and Design Patterns:

- **About Solid Principles**
- **Single Responsibility Principle**
- **Open-Closed Principle**
- **Liskov Substitution Principle**
- **Interface Segregation Principle**
- **Dependency Inversion Principle**
- **About Design Patterns**
- **Builder Pattern**
- **Singleton Pattern**

Spring Core Concepts:

- **About Spring Framework**
- **Spring Modules**
- **Spring Container**
- **Two types of Dependency Injection**
- **The Spring Configuration File**
- **Data Types of Dependencies**
- **Life Cycle Methods**
- **Dependency Check, Inner beans and Scopes**
- **Auto-Wiring**
- **Standalone Collections**
- **Stereotype Collections**
- **Injecting Interfaces**

Spring Boot:

- **About Spring Boot**
- **Spring and Spring Boot**
- **Creating Our First Spring Boot Application Using Spring Initializr**
- **Fundamentals of Spring Boot**
- **Dependency Injection and Inversion of Control**
- **Demo: Thymeleaf**
- **Spring Data with Spring Boot**

- **Creating Repositories and Persisting Data with JPA and Spring Data**
- **Reading and Querying Data with JPA and Spring Data**
- **Different Ways to Query Data with JPA and Spring Data**
- **Create, Read, Updating and Delete Data with JPA and Spring Data**

Restful APIs with Spring Boot:

- **About Restful APIs**
- **HTTP Request Types**
- **HTTP Response Codes**
- **HTTP Clients**
- **GET with Spring REST**
- **POST with Spring REST**
- **PUT with Spring REST**
- **DELETE with Spring REST**
- **REST API Elements Explained**
- **Build Your Own REST API**

Project:

- **Employee Management System**