

## Description

Spring Framework is a Java platform that provides comprehensive infrastructure support for developing Java applications. Spring handles the infrastructure so you can focus on your application.

## Course Materials

### Required

Java SE, Java EE.

## Course Schedule

| Week    | Topic                                         | Description                                                               |
|---------|-----------------------------------------------|---------------------------------------------------------------------------|
| Week 1  | Overview of Spring Framework                  | Getting Started with Spring                                               |
| Week 2  | Core Technologies                             | The IoC container, Bean overview, Dependencies                            |
| Week 3  | Bean scopes                                   | The singleton and prototype scope and other ...                           |
| Week 4  | Annotation-based container configuration      | @Required, @Autowired                                                     |
| Week 5  | Resources                                     | Built-in Resource implementations, The ResourceLoaderAware interface      |
| Week 6  | Validation, Data Binding, and Type Conversion | Spring Type Conversion                                                    |
| Week 7  | Spring Expression Language (SpEL)             | Expression Evaluation using Spring's Expression Interface                 |
| Week 8  | Aspect Oriented Programming with Spring       | @AspectJ support, Schema-based AOP support                                |
| Week 9  | Spring AOP APIs                               | Pointcut API in Spring                                                    |
| Week 10 | Testing                                       | Spring JUnit 4 Testing Annotations                                        |
| Week 11 | Object Relational Mapping (ORM) Data Access   | Hibernate, JPA, Declarative transaction management, Data access with JDBC |
| Week 12 | Web MVC framework                             | Implementing Controllers                                                  |
| Week 13 | Marshalling XML using O/X Mappers             | Marshaller and Unmarshaller                                               |
| Week 14 | View technologies                             | Thymeleaf, Introduction                                                   |
| Week 15 | JSP, JSF                                      | JSON Mapping View, HTTP Message Conversion                                |