

Spring Framework Certification training provides in-depth knowledge about all the concepts that made Spring probably the most popular Java application framework. The delegates also get to know how to build an application by using the Spring MVC. With the help of Spring Framework training, the delegates will get to know how to making spring application secure. Throughout the training, the delegates will understand the Spring Framework architecture and its features.

The delegates will get familiar with the different ways of configuring the beans in spring. The delegates also understand how to write expressions. With the help of Spring Framework training, the delegates will also learn about the core SpEL API that is use in spring applications. The delegates will also learn about the limitations of using OOPs and as well as understand the need of Aspect Oriented Programming (AOP). At the end of the training, the delegates will be able to create a web application by using the Spring Framework.

## Prerequisites

For attending this training, the delegates should have basic knowledge of Java and databases.

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## Course Objectives

After the completion of Spring Framework Certification Training at Silicon Beach Training, the delegates will be able:

- Understand about the Spring Framework Architecture
- Spring's Dependency Injection and Autowiring feature
- Learn about the (AOP) Aspect Oriented Programming and AspectJ
- Get to know about the Data access mechanisms which are provided by Spring
- Understand about the Spring MVC
- Integrating Struts2 and JSF with Spring
- Understand how to secure applications
- Learn about the Spring Web Flow
- Integrating Hibernate with Spring
- Learn how to create a web application by using the Spring MVC
- To write test cases with JUnit Using log4j for logging
- Understand about the Spring Integration Framework

## Introduction to Spring

- Introduction to Spring Framework
- Why Spring
- Java Frameworks
- Spring Framework architecture
- Object Coupling Problem
- Loose coupling and Tight coupling
- Dependency Injection and its types

- Bean Life cycle
- Bean scopes (singleton and prototype)

## Spring Configurations

- What is Autowiring
- Different types of Autowiring
- Implementing Autowiring in different ways
- Spring bean definition inheritance
- Specifying default values using @value annotation
- Autowiring bean using @Autowired
- Resolving bean using @Qualifier, Defining a component
- using @Component, Using @PostConstruct and
- @PreDestroy
- Automatic Bean discovery in a Spring application
- Using Spring Expression Language(SpEL)

## Aspect Oriented Programming and DAO

- Introduction to Aspect Oriented Programming (AOP)
- AOP terminologies
- Implementing MethodBeforeAdvice
- Implementing AfterReturningAdvice
- Implementing MethodInterceptor
- Implementing ThrowsAdvice
- What is AspectJ
- AspectJ provided annotations like @Aspect, @Before etc
- Data Access Object (DAO) pattern
- Using property files

## Data Access

- Using JDBC Template
- Binding variables in a database query
- Mapping database rows to Java class
- Jdbc Batch Processing, What is Hibernate
- Working With Hibernate
- Integrating Hibernate with Spring
- Database Transaction
- Spring support for Database transactions

## Spring Web

- Spring MVC Architecture,
- MVC Components
- Setup Spring MVC Application
- Writing a Spring MVC application
- Exception Handling
- Apache Tiles

## **Integrating Struts 2, JSF with Spring, Spring Web Flow**

- Understand Struts 2 and JSF,
- Integration Spring with Struts
- Developing a Struts 2 application
- Integrating JSF with Spring,
- Developing a JSF application
- Spring Web Flow

## **Spring Security**

- Spring features for Securing applications
- Implementing Remember me feature
- Storing Encrypted Passwords
- Restricting the number of login attempts
- Logging with Log4j
- Writing test cases with JUnit

## **Spring Integration**

- Introduction to messages
- Channels, and Endpoints
- Receiving Messages
- Common Endpoints
- Endpoint API
- Message Flow components
- Introduction to Adapters

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