Spring® 3 and Spring Web Flow 2.1

This course is a new course based on the Spring 3 release. It includes complete coverage of the annotation based approach to configuration and the use of Java-5 capabilities that was first introduced in Spring 2.x, and which has been greatly enhanced in Spring 3. It also provides coverage of the traditional XML-based configuration that can still play an important role in existing and new projects. The course starts with the basics of Spring and in-depth coverage on using the powerful capabilities of the Core module to reduce coupling, and increase flexibility, ease the maintenance, and testing of your applications. It goes on to cover all the important capabilities of Spring 3, including using Spring to simplify the creation of a persistence layer with JDBC and/or persistence frameworks like Hibernate and JPA. It includes coverage of advanced capabilities such as using Spring's Aspect Oriented Programming (AOP) to program cross-cutting concerns such as transactions and security. It provides an introduction to Spring Security v3, its architecture, and how to use it to secure both Web application requests and bean invocations. The course includes integration of Spring with Java EE Web applications, an introduction to Spring's Web MVC, and thorough coverage of Spring Web Flow 2 (which is still the latest version available). Spring MVC is a Web framework based on the powerful Model-View-Controller pattern, and the introduction covers the basics of Spring MVC, and how it supports organizing your Web applications in a highly structured, loosely coupled manner. Spring Web Flow 2 is a Spring framework for defining user interface flow in a Web application. The course includes thorough coverage of Web Flow, including an overview of its capabilities and architecture, defining flows, flow variables and actions, the Unified EL, and flow programming.

Course Objectives:

- Understand the core principles of Spring, and of Dependency Injection (DI)/Inversion of Control
- Use the Spring Core module and DI to configure and wire application objects (beans) together
- Understand and use the complete capabilities of the Core module, such as lifecycle events, bean scopes, and the Spring API
- Work with the DAO and/or ORM modules to create a well structured persistence layer with JDBC
- Use Springs Data Integration with JDBC and technologies such as Hibernate or JPA.
- Understand and use Spring's powerful new AOP capabilities for programming cross-cutting concerns across multiple points in an application
- Understand and use Spring's transaction support, including its easy to use tx/aop XML configuration elements and Java 5 annotations
- Integrate Spring with Java EE Web applications
- Understand how Spring MVC works using the new @Controller model, and use it to build basic Web applications
- Understand the basics of Spring Security, and how to secure Web apps and Spring managed beans with it
- Understand and use Spring Web Flow 2 to define complex user interface flow in Web applications.

Audience: Java developers who need to work with Spring based applications.

Prerequisites: A good working knowledge of basic Java, JDBC, and Servlets/JSP.

Number of Days: 5 days