Implementing Java, Spring and Hibernate in Java EE Applications

The Implementing JSF, Hibernate, and Spring in Java EE Applications course consists of the following modules:

- Implementing Java Server Faces in Java EE Applications
- Implementing Data Persistence Using the Hibernate Framework
- Building Web Applications Using the Spring Framework

Module 1: Implementing Java Server Faces in Java EE Applications
JSF is a framework that allows the Web developers to create attractive and easy-to-use UI. This module will provide the necessary skills to the students to work as a Web application developer in the industry.

Module 2: Implementing Data Persistence Using the Hibernate Framework
The Hibernate framework resolves the preceding problems by providing database-independent data persistence. It allows the developers to map the classes of the application to the database tables so that the data of an object can be directly stored in a database table. In addition, if the underlying database changes, the developers only need to make modifications in the configuration file that contains database-specific information.

Module 3: Building Web Applications Using the Spring Framework
When the requirement of a Web application is changed, the business logic needs to be changed. The change in business logic affects the other components of the Web application as they are dependent on each other. In other words, the components of the Web application are tightly coupled. Therefore, to make the Web applications easily updatable, the components of the Web applications must be made loosely coupled.

Module Contents...

Module 1: Implementing Java Server Faces in Java EE Applications
- Identify the benefits and features of the JSF framework
- Create a JSF page
- Access, convert, and validate user input
- Implement navigation in a Web application
- Handle events in a Web application
- Work with styles and templates
- Create and use composite components
- Implement AJAX in a JSF application

Module 2: Implementing Data Persistence Using the Hibernate Framework
- Identify the benefits and features of the Hibernate framework
- Map classes with the relational database tables
- Retrieve data from the database tables by using different types of queries
- Work with persistent objects
- Use transactions to store and retrieve data from a database
- Control concurrency issued in a database-centric application

Module 3: Building Web Applications Using the Spring Framework
Identify the benefits and features of the Spring framework
✓ Manage application objects by using dependency injection
✓ Use the Spring MVC module to create Web applications
✓ Implement aspect-oriented programming approach in a Web application
✓ Integrate the Spring framework with the JSF and Hibernate frameworks
✓ Manage transactions in a Web application developed using the Spring framework

➜ Pre-Requisites..
The students should have Knowledge of:
✓ Core Java, JDBC
✓ JSP, Servlets

➜ Exit Profile..
✓ Implement JSF in Java EE applications
✓ Implement data persistence using the Hibernate framework
✓ Build Web applications using the Spring framework