Java EE 7: Front-end Web Application Development

This Java EE 7: Front-end Web Application Development training helps you explore building and deploying enterprise applications that comply with the Java Platform, Enterprise Edition 7 Web Profile. Expert Oracle University instructors will help you explore annotations, Session Enterprise JavaBeans (EJB-Lite), Java Persistence API (JPA), servlets, JavaServer Pages(JSPs), Contexts and Dependency Injection (CDI), JAX-RS RESTful web services, the Java API for WebSocket and the Java API for JSON processing.

Learn To:

- Develop web-based interfaces for both desktop and mobile devices.
- Assemble an application.
- Build Java applications.
- Deploy an application into an application server (Java EE platform runtime environment).

Benefits to You

By taking this course, you'll gain hands-on experience building Java EE web applications. You will get the chance to create web-based user interfaces using HTML5 and JavaScript along with JSPs and servlets. Web-based user interfaces will use AJAX to communicate with RESTful web services you create; data will persist using JPA and optimistic locking.

Participate in Hands-On Labs

By learning through hands-on exercises via structured labs, you'll get a chance to explore EJB-Lite session bean components, which can be used with container-managed transactions. You'll perform lab exercises using the NetBeans IDE and WebLogic Server.

Prerequisites

Suggested Prerequisite

- JavaScript and HTML5: Develop Web Applications Ed 1

- Experience with an Integrated Development Environment

Required Prerequisite

- Java SE 8 Programming Ed 1
- Experience with Java SE, or Java Programmer Certification
- Understand object-oriented principles
- Basic understanding of database concepts and SQL syntax
- Able to author HTML, CSS, and JavaScript enabled web pages

Audience

- Administrator
- Developer

Objectives

- Create and use Java annotations
- Select the correct Java EE Profile for a given application
- Develop and run an EJB technology application
- Create Java EE technology applications with the Java EE 7 Platform
- Identify the services provided by an Application Server
- Package, deploy and debug enterprise applications
- Create web-based user interfaces using Servlet, JSP, JAX-RS, and JavaScript technologies
- Access relational databases using the Java Persistence API
- Create scalable, transacted business logic with EJB-Lite
- Develop basic Java Persistence API entity classes to enable database access
- Develop a web-based user interface using Servlets, JSPs, and JAX-RS
- Design applications to use dependency injection
- Use IDEs and Application Servers for Java EE development

Topics

- Java Platform, Enterprise Edition
- Enterprise Development Tools and Applications
- JavaBeans, Annotations, and Logging
- Java EE Web Architecture
- Developing Servlets
- Developing with JavaServer Pages
- JAX-RS Web Services
- Java RESTful Clients
- HTML5 Applications with JavaScript and AJAX
- WebSocket and the Java API for JSO Processing
- Implementing a Security Policy
- POJO and EJB-Lite Component Models
- The Java Persistence API
- Implementing a transaction policy