

## Java EE 7: New Features

**Duration:** 2 Days

### What you will learn

This Java EE 7: New Features course is designed for experienced Java EE 6 platform professionals. You'll simplify the switch to the Java EE 7 platform by performing lab exercises and experimenting with real code examples.

Learn To:

Implement the new Java API for Batch Applications, JSON and Web socket in your code (JSRs 352, 353 and 356). Enable JAX-RS 2.0, EL 3.0 and JMS 2.0 Major enhancements in your code.

Implement the enhancements in JSF and JSP in your code.

Implement the enhancements in CDI and Bean Validation in your code.

Implement the enhancements in EJB and JPA in your code.

Describe and leverage the enhancements in the Java EE 7 platform.

Understand the new features for Java EE 7: JSON, Web Sockets, HTML 5, and JSF & Servlets. Update existing applications to EE 7.

Benefits to You

Write applications for Java EE 7 and take advantage of the benefits of a cloud environment and of the Java EE 7 improved simplification. Extend the range of the Java EE platform to encompass emerging technologies in the web space.

### Audience

J2EE Developer  
Java Developer  
Java EE Developer

### Related Training

*Required Prerequisites*

Java SE 7 Programming  
Java SE 7 New Features

*Suggested Prerequisites*

Java EE 6: Develop Business Components with JMS & EJBs  
Java EE 6: Develop Database Applications with JPA

### Course Objectives

Develop Java EE 7 applications  
Design and implement Restful Web Services using JAX RS 2.0  
Parse and encode JSON in Java

Create Web Application views using JSF, JSP and EL improved features  
Create Web Sockets for real-time communication  
Integrate JMS, JPA and Batch application technologies in Java EE 7 applications  
Integrate EJB, CDI and Bean Validation in backend services for EE application

## **Course Topics**

### **Java EE 7 Overview**

List of JSRs (What's New, What's Major Release and What's Updated)  
Pruned technologies - EJB Entity Beans, JAX-RPC 1.1, JAXR 1.0, and JSR-88 1.2  
Web Profile Changes  
New Default Connections for Database and JMS  
Security Descriptor and Deployment Descriptor Changes  
Overview of Common Annotations 1.1. How they consolidate and remove duplicates.

### **Developing Java EE Applications Using JAX-RS 2.0 and JSON-P**

New Client API  
JAX-RS Server Side Improvements  
JSON-P (new API)

### **Developing Application Using Web Component Enhancements (JSF, JSP, EL, Servlet)**

JSF Changes  
JSP Changes  
EL Changes  
Servlet Changes

### **Developing Applications Using Web Socket**

Explain Web Service Limitations  
Web Socket Explained  
Creating Web Sockets with Java  
Client-side Web Socket with JavaScript  
Client-side Web Socket with Java

### **Implementing EJB, CDI and Bean Validation**

EJB Improvements  
CDI Changes  
Bean Validation Improvements

### **Implementing JMS, JPA and Batch**

JMS 2.0  
Batch Applications (new API)  
JPA Improvements  
Create Web Sockets for real-time communication  
Integrate JMS, JPA and Batch application technologies in Java EE 7 applications  
Integrate EJB, CDI and Bean Validation in backend services for EE application