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Technology: Red Hat
Difficulty: Intermediate
Course Duration: 5 Days

# Red Hat Application Development I: Programming in Java EE (AD183VT)



## **About this course:**

Helping Java SE developers write Java EE applications

Red Hat Application Development I: Programming in Java EE (JB183) exposes

experienced Java Standard Edition (Java SE) developers to the world of Java Enterprise Edition (Java EE).

This course is based on Red Hat® Enterprise Application Platform 7.0.

In this course, you will learn about the various specifications that make up Java EE. Through hands-on labs, you will transform a simple Java SE command line application into a multi-tiered enterprise application using various Java EE specifications, including Enterprise Java Beans, Java Persistence API, Java Messaging Service, JAX-RS for REST services, Contexts and Dependency Injection (CDI), and JAAS for securing the application.

# **Course Objective:**

- Generating multi-tiered Java EE applications.
- Packaging and deploying Java EE applications.
- Creating Enterprise Java Beans, including message-driven beans.
- Managing persistence.
- Creating REST services with JAX-RS.
- Implementing Contexts and Dependency Injection.
- Creating messaging applications with JMS.
- Securing Java EE applications with JAAS.

#### Audience:

 This course is designed for Java developers who want to learn more about the specifications that comprise the world of Java Enterprise Edition (Java EE).

# **Prerequisite:**

- Proficiency in developing Java SE applications, with 2+ years of experience required
- Proficiency in using an IDE such as Red Hat Developer Studio or Eclipse
- Experience with Maven is recommended but not required

## **Course Outline:**

## Transition to multi-tiered applications

Describe Java EE features and distinguish between Java EE and Java SE applications.

## Package and deploying applications to an application server

Describe the architecture of a Java EE application server, package an application, and deploy the application to an EAP server.

#### **Create Enterprise Java Beans**

Develop Enterprise Java Beans, including message-driven beans.

## Manage persistence

Create persistence entities with validations.

## Manage entity relationships

Define and manage JPA entity relationships.

#### **Create REST services**

Create REST APIs using the JAX-RS specification.

## **Implement Contexts and Dependency Injection**

Describe typical use cases for using CDI and successfully implement it in an application.

## Create messaging applications with JMS

Create messaging clients that send and receive messages using the JMS API.

## **Secure Java EE applications**

Use JAAS to secure a Java EE application.

# Comprehensive review of Red Hat JBoss Development I: Java EE

Demonstrate proficiency of the knowledge and skills obtained during the course.