# Red Hat Application Development I: Programming in Java EE Classroom Training (AD183)

Red Hat

- **Nível:**
- **Duração:** 27h

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## Sobre o curso

**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).

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.

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

**Recommended next:**

- Red Hat Certified Enterprise Application Developer Exam (EX183)

### Diagnóstico de Competências

Teste previamente os seus conhecimentos, ou os da sua equipa, em:

- Red Hat Satellite
- Ansible
- RH JBoss Enterprise Application Platform
- RH Gluster Storage

- RH OpenShift
- RH OpenStack Platform
- RH Enterprise Linux 7
- RH Fuse
- RH Camel
- RH AMQ
- RH Ceph Storage
- RH Identify Management
- RH Enterprise Linux 8

Aceda aqui ao diagnóstico!

**Impact on the organization**

This course is intended to develop the skills needed to make the transition from Java SE programming to Java EE programming. This course introduces core concepts of multi-tiered Java Enterprise applications and gives you experience writing, deploying, and testing Java EE applications. You will use various tools from the Red Hat JBoss middleware portfolio, including JBoss Developer Studio, Maven, and the JBoss Enterprise Application Platform application server.

**Impact on the individual**

As a result of attending this course, you should be able to describe most of the specifications in Java EE 7 and create a component with each specification. You will be able to convert a Java SE program into a multi-tiered Java EE application. You should be able to demonstrate these skills:

- Describe the architecture of multi-tiered Java EE applications.
- Package Java EE applications and deploy to Red Hat JBoss Enterprise Application Platform with various tools.
- Create an Enterprise Java Bean instance.
- Manage the persistence of data using Java Persistence API.
- Create a web service using JAX-RS.
- Properly apply context scopes to beans and inject resources into Java Beans.
- Store and retrieve messages using the Java Messaging Service.
- Secure a Java EE application.

## Destinatários

- 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).

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## Pré-requisitos

- 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

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## Programa

- Transition to multi-tiered applications
- Package and deploying applications to an application server
- Create Enterprise Java Beans
- Manage persistence
- Manage entity relationships
- Create REST services
- Implement Contexts and Dependency Injection
- Create messaging applications with JMS
- Secure Java EE applications
- Comprehensive review of Red Hat JBoss Development I: Java EE

**Note:** Course outline is subject to change with technology advances and as the nature of the underlying job evolves.

**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.