

**Price:** R10,400.00 excl. VAT  
**Duration:** 4.5 days  
**Code:** J2EED

## JEE Development

### Description

Java Enterprise Edition (JEE) is a collection of technologies for the Java platform that is designed to support large, complex software systems in a corporate environment. This course will give you an overview of how these technologies are organised and how they fit together. You will learn how to use Java Servlets and Java Server Pages (JSP) to build dynamic web applications. You will also learn how to use Enterprise JavaBeans (EJBs) to build Java systems with reusable components.

### Objectives

After you have completed the JEE Development course, you will be able to:

- Understand the JEE architecture and choose appropriate JEE technology.
- Develop applications using the JEE platform.
- Write Java Server Pages and servlets, and deploy them on a application server.
- Write an Enterprise JavaBean and deploy it on an application server.

### Intended Audience

You should attend the JEE Development course if:

- You are a Java programmer and you need to develop systems using the JEE architecture.
- You are an architect, project manager or systems analyst and you need to understand the JEE architecture.
- You need a detailed overview of JEE to understand the role of the various technologies.

If you need an in-depth understanding of specific technologies within JEE, then you should think about attending one of our more specialised courses:

- Java Servlets and JSP course.
- JavaServer Faces course.
- Enterprise JavaBeans course.
- Java Web Services course.

### Prerequisites

Before you attend the JEE Development course:

- You must have attended our Java Programming course or already be comfortable with the fundamentals of the Java programming language.

### Course Contents

#### JEE Technology

- Servlets and Java Server Pages (JSP).
- Enterprise JavaBeans (EJB).
- Java Transaction API (JTA) and Transaction Service (JTS).
- Java Naming and Directory Interface (JNDI).
- Remote Method Invocation (RMI) and RMI-IIOP.
- Java Database Connectivity (JDBC).
- Java Message Service (JMS).
- JEE Connector Architecture (JCA).

- JavaMail.

### **Java Servlets and JSPs**

- The role and use of servlets and JSPs.
- Servlet lifecycle.
- Request, response, cookie and session objects.
- JSP scriptlets, declarations, expressions, directives.
- Custom tags and the JSP Standard Tag Library (JSTL).
- MVC architecture.
- Filters and event listeners.
- Expression Language (EL).
- Web applications and deployment descriptors.

### **Enterprise JavaBeans**

- EJB interfaces and components.
- EJB Lifecycle.
- Stateless, stateful and singleton session beans.
- Message Driven Beans.
- Programmatic vs declarative transactions with JTA and JTS.
- Comparison between EJB2 and EJB3.
- EJB3 Entity beans and the JPA.
- Annotations.

### **Messaging with JMS**

- Message driven beans and message queue (MQ) servers.
- Message types and usages.
- Point-to-point versus publish and subscribe messaging.

### **JNDI, RMI and CORBA**

- Referencing remote objects with JNDI.
- Serialization.
- RMI and RMI-IIOP.
- CORBA and Java IDL.

### **Additional JEE Topics**

- Web Services and SOA.
- JEE core design patterns.
- Best Practices.

*\*\* The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.*