

## Java 2 Enterprise Edition J2EE for Developers

- **Course Number:** J2EE
- **Length:** 5 Day(s)

### Certification Exam

There are no exams associated with this course.

### Course Overview

The J2EE Java 2 Enterprise Edition for Developers course provides students with the knowledge to build and deploy enterprise applications that comply with Java 2 Platform, Enterprise Edition (J2EE) platform standards. You'll learn about the tools and technologies of the Java 2 Enterprise Edition Software Development Kit. The enterprise components presented in this course include Enterprise JavaBeans (EJB) technology, servlets, and JavaServer Pages (JSP) technology, and the Java technology clients that use them. The J2EE platform simplifies enterprise applications by basing them on standardized, modular components, by providing a complete set of services to those components, and by handling many details of application behavior automatically, without complex programming.

### Prerequisites

Basic knowledge of programming and Java programming language is required.

### Audience

This course is intended for software developers using Java programming language.

### Course Outline

- Chapter 1
- J2EE Overview
- Ecommerce Environment
- Development Paths
- N-Tier Architecture Approach
- Containers
- Roll of a Browser
- 3 Implementations of Java Language
- J2EE Extensions API
- J2EE Architecture
- Java Database Connectivity "JDBC"
- J2EE Packaging
- Web.xml File
- Chapter 1 Summary
- Chapter 2
- Java Servlets
- Types of Java Programs
- Characteristics of Java Servlets
- Illustrating Servlet Processing
- Advantages of Java Servlets
- Servlet Class Hierarchy

- Servlet Lifecycle
- Components of an HTTP Server
- Request & Response Objects
- Demo - Building a Servlet
- Role of an HTML Form
- ACTION & METHOD Parameter
- HTML FORM Source & Sample
- Demo - Servlet Interaction
- What is HTTP Processing?
- Demo - Extracting Information
- Java Servlet API
- Servlet Request Handling
- Request Methods for Input Data
- Chapter 2 Summary
- Chapter 3
- J2EE Applications
- Web Application Structure
- Servlet Tags
- Demo - Structure of J2EE Projects
- Chapter 3 Summary
- Chapter 4
- Session Management
- Session Support
- Creating a Session Object
- HttpSession Methods
- Demo - Sessions
- Session Invalidation
- Illustrating Request Dispatcher
- Application Performance
- Persistent Sessions
- Chapter 4 Summary
- Chapter 5
- JavaBeans
- Illustrating JavaBeans
- Rules of JavaClasses
- Visual Logic Beans
- Demo - Building a JavaBean Class
- Servlet/JSP Model
- Demo - Inserting a JavaBean
- Chapter 5 Summary
- Chapter 6
- JavaServer Pages
- JSP Document Components
- Approach: Advantages & Disadvantages
- Server-Side Scripting
- JSP Translation
- JSP Forwarding
- Demo - Creating a JSP Document
- JSP Components
- JSP Implicit Objects
- include and taglib Directive
- JSP Expression

- JSP Scriptlet & Comment
- Distinct JSP Disadvantages
- JSP Action Tags
- Servlets & JavaBeans
- Demo - Inclusion of JavaBeans & Servlets
- useBean Translation
- Chapter 6 Summary
- Chapter 7
- Java Database Connectivity
- JDBC with MVC
- Different Types of Drivers
- JDBC V2.0 Environment Connections
- Accessing Connection Pools
- Creating Connections
- Using StringBuffer & ResultSet Object
- Demo - Relational Database Access Program
- Result Set Table
- Demo - JavaBean & JavaServer Page Capabilities
- Chapter 7 Summary
- Chapter 8
- Enterprise JavaBeans
- Benefits of Enterprise JavaBean Development
- Comparing JavaBeans & EJB's
- Illustrating EJB's
- Session EJB's
- Demo - Building an Enterprise JavaBean
- Staple Session Beans
- Message EJB's
- Naming Overview
- Demo - Creating an EJB Client
- Chapter 8 Summary
- Chapter 9
- J2EE Security
- 4 Processes of J2EE Security
- Security Layers
- Application Authentication
- WebSphere Security Policies
- Security Delegation Policy
- Chapter 9 Summary
- Chapter 10
- Custom JSP Tags
- JSP Components
- Defining Tag Handler
- Deploying Tag Libraries
- Demo - Custom JSP Tags
- Chapter 10 Summary