
Java™ 2: Enterprise JavaBeans

Course Length: 3 Days

Course Description

This course will help you to build upon your background knowledge in Java and acquire specific skills like developing, deploying, and running distributed applications using Enterprise JavaBeans (EJB). EJBs are used in real-world applications such as e-commerce Web stores, banking transactions, stock-trading applications, credit-card processing and insurance risk analysis applications, to name a few, because of their compatibility with a wider range of databases and their ability to be reused in multiple applications. This course is your entry point into learning how to develop EJB-based applications like these.

Course Objective: You will create distributed applications using Enterprise JavaBeans and deploy them on a J2EE server.

Target Student: Java application developers and programmers with at least 1 to 2 years of experience who are or will be involved in enterprise development.

Prerequisites: Before taking this course, students should have an advanced knowledge of Java programming. Courses that are available to provide this level of knowledge are *Java 2: Introduction* and *Java 2: Advanced*, or *Java 2: Programming Language for Developers*.

Delivery Method: Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

Performance-Based Objectives

Upon successful completion of this course, students will be able to:

- Set up the EJB environment.
- Develop session beans.
- Develop an entity bean.
- Develop a message-driven bean.
- Process transactions.
- Optimize the performance of a site.

Course Content

Lesson 1: Preparing to Develop EJB Applications

- Topic 1A: Create an Application Plan
- Topic 1B: Determine the Appropriate Bean
- Topic 1C: Configure the J2EE Server for EJBs

Lesson 2: Developing Session Beans

- Topic 2A: Determine the Appropriate Session Bean Type
- Topic 2B: Create a Remote Interface for a Session Bean
- Topic 2C: Create a Home Interface for a Session Bean
- Topic 2D: Create a Stateful Session Bean Class
- Topic 2E: Create a Session Bean Client
- Topic 2F: Deploy a Session Bean Component
- Topic 2G: Create a Stateless Session EJB

Lesson 3: Developing Entity Beans

- Topic 3A: Determine the Appropriate Entity Bean
- Topic 3B: Create a Remote Interface for an Entity Bean
- Topic 3C: Create a Home Interface for an Entity Bean
- Topic 3D: Create an Entity Bean Class
- Topic 3E: Create a Client for an Entity Bean
- Topic 3F: Create a Local Access Interface
- Topic 3G: Deploy an Entity Bean Component
- Topic 3H: Create a Container-managed Persistence Entity Bean

Lesson 4: Developing Message-driven Beans

- Topic 4A: Create a Message-driven Bean Class
- Topic 4B: Create a Client Class for a Message-driven Bean
- Topic 4C: Call an EJB
- Topic 4D: Communicate to an HTML Front End

Lesson 5: Processing Transactions

- Topic 5A: Decide on the Types of Transactions to Use
- Topic 5B: Define Transaction Attributes
- Topic 5C: Set ACID Transaction Properties
- Topic 5D: Create a Transactional Stateful Session Bean

Lesson 6: Optimizing Site Performance

- Topic 6A: Fine-tune Site Performance
- Topic 6B: Enhance EJB Performance with Value Objects
- Topic 6C: Pool Resources