

Java EJB

Prerequisites / Further Training

Java Servlets Beginner	Java Servlets Advanced
Java Enterprise Edition	Enterprise Java Beans
Java Persistence API	Java Web Services
Java Server Faces	Spring Framework

Outcomes

- After this course you should understand up to the EJB 3.2 spec and be ready to prepare for the Oracle Java Business Component Exam.
- You should also be able to develop applications using the latest JEE and EJB standards as we do lots of practical examples that can be used as starting points for many applications in the workplace.

Course Material

Electronic.

Course Info

1. Introduction to the EJB Architecture

- Introduction to the EJB Spec
- Course Overview
- Netbeans
- Glassfish
- Testing

2. EJB Session beans

- Intro to Session Beans
- Stateless Session Beans
- Stateful Session Beans
- Singleton Session Beans
- Timer Service
- Client View of Session Bean

- Compiling, Deploying and Testing the Session Bean

3. Entities and the Java Persistence API

- An Entity Example
- The Persistence Archive
- The Entity Manager
- The Entity Life Cycle
- O/R Mapping
- Entity Relationships
- Java Persistence Query language (JPQL)
- Persistence vs. Adaptation
- Example Application
- Compiling, Deploying and Testing the JPA Entities

4. Advanced Persistence Features

- Mapping Entity Inheritance Hierarchies
- Using Abstract Entities, Mapped Superclasses, and Non-Entity Classes in an Inheritance Hierarchy
- Polymorphic Relationships
- Polymorphic JPQL Queries
- Using Native SQL Queries
- The Query Criteria API
- Composite Primary Keys and Nested Foreign Keys
- Support for Optimistic Locking (@Version)
- Support for Autogenerated Primary Key Values
- Interceptors: Entity Callback Methods
- Compiling, Deploying and Testing the JPA Entities

5. EJB Message-Driven beans

- Message-Oriented Architecture
- Using MDB's
- Compiling, Deploying and Testing MDB's

6. EJB and Web Services

- What are Web Services
- Java EE and Web Services

- EJB Stateless Session Beans as Web Services
- Packaging, Deploying and Testing Web Services

7. Integrating Session Beans, Entities, Message-Driven Beans and Web Services

- Application Overview
- Application Component and Services
- Our Online Application Business Process
- An IN-depth Component/Service Walkthrough
- Building, Deploying and Testing the Application

8. Transaction Support in EJB

- What is a Transaction?
- Transaction Support in EJB
- Session Bean Transactional Behaviour in the Service Model
- Example: The StatusUpdateEJBs

9. EJB Performance and Testing

- The Testing Methodology
- The Grinder
- The Test Application
- The Performance Test

10. Contexts and Dependency Injection

- What is CDI?
- Relationship with EJB
- CDI Concepts
- Interaction with Session Beans
- Compiling, Deploying, and Testing the CDI Application

11. EJB Packaging and Deployment

- The Packaging and Deployment Processes
- Java EE Deployment Infrastructure
- Java EE Deployment Components

- The Java EE Application
- Application Servers and Platform Independence
- Deployment Roles
- Assembling an EJB JAR Module
- Assembling a Persistence Unit

12. EJB Client Applications

- Full Application Architecture
- JSF
- Java EE Web Technologies
- JSF Architecture
- JSF Tools and Components
- Developing Web Apps using JSF and EJB
- Compiling the JSF Application
- Deploying and Running the Full Sample Application

13. Testing in an Embeddable EJB Container

- JUnit Tests
- A JUnit test class for our AppService EJB
- Instantiating the Embeddable EJB Container and Starting Derby
- Initializing Data in the Persistence Unit
- Test Methods
- Building and Testing the Sample Code
- Prerequisites
- Opening the Sample Application
- Compiling the Sources
- Running the JUnit Tests

Duration and pricing

- [*Price Group A*](#)

Certificate

[Read About Our Certificates](#)

Bookings

You can download the course registration form on our home page or by clicking [here](#)

Brochure

You may download a pdf copy of this page by clicking on the pdf icon at the top of the page.

Questions

Please [email us](#)

Schedule

On the calendar below. If your browser doesn't display the calendar below, please click on [this link](#) or try using [Google Chrome](#), alternatively please enquire via our [Contact Us](#) page.