

Učebné osnovy ku kurzu :

SL-351-EE5- Business Component Development with Enterprise JavaBeans Technology

Module 1 - Examining EJB Applications

- Introduce the Java Platform, Enterprise Edition (Java EE)
- Examine the Java EE application architecture
- Examine the Java EE application creation process

Module 2 - Introducing the Auction Application

- Describe the auction application
- Define the domain objects of the auction application
- Describe the implementation model for the auction system

Module 3 - Implementing EJB 3.0 Session Beans

- Create session beans: Essential tasks
- Create session beans: Add life-cycle event handlers
- Package and deploy session beans
- Create a session bean client

Module 4 - Implementing Entity Classes: The Basics

- Define entity classes: Essential tasks
- Manage the life-cycle of an entity instance
- Define entity beans: Add life-cycle event handlers
- Package and deploy entity classes

Module 5 - Implementing Entity Classes: Modelling Data Association Relationships

- Examine association relationships in the data and object models
- Use relationship properties to define associations
- Implement unidirectional and bidirectional associations

Module 6 - Implementing Entity Classes: Modelling Inheritance Relationships

- Examining entity class inheritance
- Inheriting from an entity class
- Inheriting from an abstract entity class
- Inheriting from a non-entity class
- Inheriting using an embedded superclass
- Examining Inheritance mapping strategies
- Define entity classes: Using an embedded class

- Define entity classes: Using a composite primary key

Module 7 - Using the Java Persistence Query Language (QL)

- Examine the Java Persistence query language
- Create and use the SELECT statement
- Create and use the BULK UPDATE statement
- Create and use the DELETE statement
- Create and use Query objects

Module 8 - Developing Java EE Applications Using Messaging

- Describe the roles of the participants in the JMS API messaging system
- Write a message producer
- Write an asynchronous message listener
- Write a synchronous message listener
- List the messaging capabilities and limitations of session, entity, and message-driven beans

Module 9 - Developing Message-Driven Beans

- Describe the properties and life cycle of message-driven beans
- Create a JMS message-driven bean
- Create a non JMS message-driven bean

Module 10 - Implementing Interceptor Classes and Methods

- Create business interceptor method in the enterprise bean class
- Create an interceptor class
- Associate multiple business interceptor methods with an enterprise bean
- Include life-cycle callback interceptor methods in an interceptor class
- Create entity life-cycle callback methods

Module 11 - Implementing Transactions

- Describe the transaction demarcation task
- Implement Container-Managed Transactions (CMT)
- Interact programmatically with an ongoing CMT transaction
- Implement Bean-Managed Transactions (BMT)
- Apply transactions to messaging

Module 12 - Handling Exceptions

- Introduce exceptions in Java EE applications
- Describe the exception path in a Java EE application environment
- Describe EJB container exception handling
- Handle exceptions in an enterprise bean's methods
- Handle exceptions in an enterprise bean's client code
- Review specific issues relating to exception handling in EJB technology applications

Module 13 - Using Timer Services

- Create a timer callback notification
- Process a timer callback notification
- Manage timer objects

Module 14 - Implementing Security

- Understand the Java EE security architecture
- Authenticate the caller
- Examine Java EE authorization strategies
- Use declarative authorization
- Use programmatic authorization
- Examine the responsibilities of the deployer

Module 15 - Using EJB Technology Best Practices

- Define best practices and state the benefits of using EJB technology best practices
- Select and apply known patterns to Java EE application design