SETC Training Corporate Logo

Java Training: The Complete JEE Course (JCOMP, 10 jours)

Description

The course The Complete JEE Course (Java Training) is a complete exploration of enterprise application development with Java. To start with, you learn about a variety of application servers (WebSphere, WebLogic, JBoss, etc.) and the foundations of JEE. Individual JEE modules are introduced in a natural, sequential fashion, starting with JNDI and moving up to MBeans. Exercises are provided along the way permitting the student to get hands-on experience with most facets of JEE. By the end of the course, the student will have had hands-on knowledge with JNDI, JTA, JMS, EJB (including MDB), JPA, JAAS, Servlet and JSP technology.

Tarifs

- Tarification: $6,600/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

Plan de cours

Overview Of JEE

- Java Platforms
- Characteristics of Enterprise Computing
- JEE Technologies
- Multi-Tier Architectures
- Advantages of Multi-Tier Architectures
- Container-Based Approach
- JEE Application Models

The Websphere Server

- WebSphere Architecture
- WebSphere JDBC Access
- WebSphere JMS
- WebSphere Security
- WebSphere EJBs
- WebSphere Servers and Clusters
- WebSphere JNDI

Java Naming And Directory Interface

- What is JNDI?
- Benefits of JNDI
- Naming and Directory Services
- Using JNDI
- Context Operations
- JNDI Utility Class
- JNDI Example
- Naming Exceptions

Using JDBC Data Sources

- Connection Pools
- JDBC Data Sources
- Data Source Example
- Configuring JDBC Data Sources
- About JTA

Enterprise Java Beans 3.0
Enterprise Java Beans Component Model
Parties Involved in EJB Deployment
EJB Server and EJB Container
Types of Enterprise Beans
EJB Wrapper Interfaces
Deployment Descriptors
Context Environment Objects
The Client Code
Deploying the EJB in WebSphere
Moving to Annotations
Session Beans
Session Bean Lifetime, Interface, and Lifecycles
Stateless Session Beans
Accessing Environment Entries
Stateful Session Beans
Managing Exceptions
Working with Cache Settings
Deploying and Running EJBs
Java Persistency Api
The Need for JPA
Designing for JPA
Creating POJOS
The Configuration File
Persisting POJOS in a Datastore
JPA and Relationships
About using JQL
More On JPA
Session Management
Managing Transactions
Thread Considerations
Addressing Performance Issues
A Complete JPA Example
Session Facade Pattern
JEE Design Patterns
Session Facade Pattern
Transactions
Container-Managed Transactions
Transaction Attributes
System vs. Application Exceptions
Rolling Back a Container-Managed Transaction
Creating an Enterprise Application
EJB Security
JEE Security
Adding Users in the Administration Console
Specifying Security for EJBs
Mapping Roles to Users
Java Message Service
Messaging Applications
JMS and the JEE Platform

Basic JMS Concepts
The JMS Programming Model
Point-to-Point Messaging
Publisher and Subscriber Messaging
Reliable Message Delivery
Message-Driven Beans
Message-Driven Beans
Message-Driven Bean Example
Deploying Message-Driven Beans
Running the Example
Message-Driven Bean Lifecycle
Transactions
Message Acknowledgement
Creating Servlets
A Simple Servlet
Web Applications
Configuring Servlets
Running the Servlet
Servlets and Threads
Cookies and Sessions
Session Management
Custom Jsp Tags
Using Custom Tags
Types of Tags
Defining Tags
The tag Element
Simple Tags
Tags with Attributes
Including the Tag Body
Optionally Including the Body
Including the Body Multiple Times
Servlet Filters
What is a Filter?
Sample Filter
The Filter API
Initializing Filters
Blocking the Response
Modifying the Response
Running the Examples
Securing Web Applications
JEE Security
Users and Groups
Authentication for Web Applications
Authorizing Access in Web Applications
Design Concepts For Web Applications
Architecture and Design
Tiered Architectures
Model-View-Controller Architecture
JEE Design Patterns
View Helper Pattern

Front Controller Pattern
Intercepting Filter Pattern

JavaServer Faces

What is JavaServer Faces?
Model 1 and Model 2 Architecture
JSF Architecture and Components
JSF and MVC: The Pieces of the Puzzle
About the Configuration Files
Building the Model
Building the View
About the Controller
A Simple JSF Example

JSF Programming

Common JSF Tags
Validators and Converters
Resource Bundles
WebSphere Deployment

Xml Technologies

Well Formed versus Valid XML
XSD Schemas and Namespaces
XPATH and XMLDOM
XML and Web Services

Java API For XML JAXP

Document Driven versus Event Driven Document Processing
A look at SAX
Exploring JAX
The XML DOM
Loading a Document
Validating a Document
A Complete Example

Java Architecture For XML Binding (JAXB)

JAXB Overview
Working with Schemas
Schema Binding and the Java Representation
Exploring Generated Classes and Interfaces
Marshalling/Unmarshalling the Document
Validating Data
A Complete Example

Web Services

The Need for SOA
Web Service Technology: WSDL, SOAP, and UDDI
Web Service Messaging: SOAP
Java and WSDL
Java and SOAP
Using JAX-WS
Creating a Web Service
Creating a Web Service Client
Controlling Names, Namespaces and URIs

More on Web Services

Web Services and WebSphere Application Server

Web Service Events and Notifications
About Web Service Security
Advanced Web Services
Deploying Web Services
JMX Essentials
JMX Architecture
About Resource Management
Creating and Running an Agent
Using HTML Adapter
Using RMI Connector
Dealing with Exceptions
A Complete Example
MBeans
What is MBean?
The Standard Management Interface
MBean Inheritance Patterns
Standard MBeans
Using DynamicMBean and MBeanInfo
Handling MBean Errors