



Web Application Development using JEE

Course Summary

Object Oriented Concepts using Java Advanced provides students with the key, fundamental skills, needed to successfully understand various concepts required to develop Web Application using JEE framework

Duration

10 days

Objectives

Understand various concepts of web application development and Know how to apply those concepts using JEE framework

Audience

Students, Professionals



Pre-Requisites

Core Java

Outline







Day1:

Introduction to J2EE



-  Client-Server
-  Tiered Architecture
-  Web Client – Server
-  J2EE – Multi Tiered Architecture
-  HTTP Basics
-  J2EE API and Technologies
-  Components and Container
-  J2EE Architecture
-  Web Application
-  Enterprise Application
-  Deployment Descriptor

Day2:

Servlets







-  The basic structure of servlets
-  Handling the client request – Form Data / HTTP Request Headers
-  A simple servlet that generates plain text
-  ServletRequest and ServletResponse
-  A servlet that generates HTML
-  Hierarchy of Servlets



-  Servlet Container
-  The servlet life cycle

Day 3:

Servlets

-  doGet and doPost Methods
-  ServletConfig and ServletContext
-  Attribute Scope
-  SendRedirect and RequestDispatcher
-  Entries in web.xml
-  MVC Architecture







Day 4:

Filters

Listeners






Day 5:

JSP

-  Use of JSP
-  Difference between Servlets and JSP
-  Scriplet Tag
-  Expression and Declaration Tag
-  Directives
-  MVC Architecture with JSP,Servlets,JavaBeans






Day 6:



-  Hierarchy of JSP
-  JSP Page Lifecycle
-  Expression Language
-  Action Tags
-  Custom Tags





Day 7:

Session Management

-  User Authorization
-  Hidden Form Fields
-  URL rewriting
-  Cookies
-  Session Tracking API





Day 8:

Servlet Security

-  HTTP Authentication
-  Basic and Digest Authentication
-  Form-Based Authentication
-  Digital Certificates

Day 9:






J2EE Design Patterns

-  Front Controller
-  View Helper
-  Dispatcher View
-  Intercepting Filter








Day 10:




Hibernate Framework

-  Introduction to Hibernate and Architecture Overview
-  Object Relational Mapping (ORM).
-  Hibernate Architecture Overview.
-  Features and Benefits of Hibernate Framework.
-  Overview of Hibernate Distribution –Hibernate 3.

Working with Hibernate ORM Mapping

-  Hibernate API Overview.
-  Hibernate Class Mapping.
-  Configuring Hibernate using hibernate.cfg.xml.
-  Session Factory Configuration.
-  Properties and Dialect.
-  Hibernate Type System.
-  Hibernate Sessions and Persistent Objects.

Lab Requirements

-  Windows Enabled System - WinXP/Windows 7 or Linux Based OS
-  Eclipse Galileo
-  ojdbc14.jar
-  JDK 1.6
-  Oracle 10G