About Codefrux

While the current trends around the world are based on the internet, mobile and its applications, we try to make the most out of it. As for us, we are a well established IT professionals based in Bangalore, constantly coping up with the extensive advancement and adapting to new Technology.

Become a proficient Java EE developer; Understand and build web apps with Servlets and JSP; Understand and build robust EJB back end services.

You can learn how to develop web based application and having a strong command on design application. It enables to construct enterprise application by using the bean and understanding how to fetch data effectively from a database using SQL.

What you will Learn In This Course

- Become a proficient Java EE developer
- Understand and build robust EJB back end services
- Expose REST web services that allow remote applications and JavaScript to interact with an application
- Understand and build web apps with Servlets and JSP
- Understand and use JPA to interact between applications and databases
- Understand and use resource and dependency injections

Who should take the course?

- Anyone who wants to learn Java,J2EE
- People who want to produce the highest-quality, creative software
- People looking to go from absolute beginner to advanced Java expert

Servlet

1. Java EE Introduction

1. Java EE Overview
2. Java EE Technologies
3. Java EE Architecture
4. MVC
5. Quiz
6. Summary
7. Hands on

2. Servlets and JSP with the JSP Standard Tag Library (JSTL)

3.1 Web Application Basics

1. How the Web works, Thin Clients, TCP/IP
2. HTTP overview, Brief HTML review
3. Overview of Java EE, servlets & Web applications.
4. Servlet Basics
5. Quiz
6. Summary
7. Hands on

3.2 Servlet API

1. HTML Forms
2. HTTP: Request-response, headers, GET, POST
3. Overview: How Servlets Work
    a. Servlet Lifecycle: init(), service(), destroy()
    b. Requests and responses
4. Core Servlet API: GenericServlet, ServletRequest, and ServletResponse
5. HTTP Servlets: HttpServletRequest, HttpServletResponse and HttpServlet
6. Accessing Parameters
7. Quiz
8. Summary
9. Hands on

3.3 Additional Servlet Capabilities

1. HTTP headers and MIME types
2. RequestDispatcher: Including and forwarding
3. Sharing data with the request object attributes
4. Sharing data with ServletContext attributes
5. Error Handling
6. Quiz
7. Summary

8. Hands on

3.4 JavaServer Pages

1. Basics and Overview
    a. JSP architecture
    b. JSP tags and JSP expressions
    c. Fixed Template Data
    d. Lifecycle of a JSP
2. Model View Controller (MVC)
    a. Model 1/Model 2 Architecture
3. Data Sharing among servlets & JSP
    a. Object scopes or "buckets"
    b. Request, application, session and page scope
    c. Predefined JSP implicit objects (request, session, application, page)
    d. ‹jsp:useBean›
    e. ‹jsp:getProperty›, ‹jsp:setProperty›
    f. ‹jsp:include›, ‹jsp:forward›
4. Quiz
5. Summary
6. Hands on

3.5 Using Custom Tags

1. Custom tags overview
2. Reducing JSP complexity
3. Tag Libraries
    a. Tag Library Descriptor (TLD)
    b. Loading a tag library in a web app
4. The JSTL
5. JSP Expression Language (EL)
6. Using custom tags
    a. The c:url, c:param, c:forEach, c:out tags
7. Quiz
8. Summary
9. Hands on

3.6 More JSP Capabilities and Session Management

1. HTTP as a stateless protocol
2. Hidden form fields
3. Cookies: Overview, API, Using cookies
4. Session overview: Cookies and session tracking
5. HttpSession
    a. Putting data inta session object
    b. Retrieving data from a session object
6. Using session data in servlets and JSPs
7. Additional JSP Capabilities
    a. Exception handling and error pages

b. Directives (page, include, others)
8. Import declarations
9. Multithreading considerations and data safety
    a. SingleThreadModel interface
10. Quiz
11. Summary
12. Hands on

3.7 Additional JSP Capabilities

1. JSP Directives
2. JSP Error Pages
3. JSP and Java
    a. Declarations, Scriptlet overview, Scriptlet syntax
4. Quiz
5. Summary
6. Hands on

3.8 More JSTL

1. Overview of JSTL libraries
2. The JSTL Expression Language
    a. Expressions, Type Coercion, Operators, String concatenation, Implicit Objects
3. The Core JSTL Library
    a. General Purpose: c:out, c:set, c:catch
    b. Conditional: c:if, c:choose
4. Quiz
5. Summary
6. Hands on

3.9 Additional Topics

1. Servlet Filter overview
    a. Filtering examples, lifecycle, & filter chains
    b. Filter API, Modifying a request, Modifying a response
2. Quiz
3. Summary
4. Hands on

3. JSP

3.1 Introduction

1. Relational Database and JDBC Overview
    a. Overview, Table Relationships, Web Based Data Access, JDBC Characteristics
2. JDBC Architecture, JDBC API Overview
    a. DriverManager, JDBC Drivers
    b. Naming databases with JDBC URLs

3. Connecting to a database
    a. Connection interface, Establishing a connection
4. DataBaseMetaData
5. Handling Database Exceptions
6. Quiz
7. Summary
8. Hands on

3.2 Data Access

1. DA – Data Access bjects, -R Mapping, Value bjects
2. Prcessing Database Data
    a. Executing statements, precmpiled statements and stred prcedures
    b. Prcessing ResultSets,
    c. Dealing with Null data
    d. Updating, inserting, retrieving data
    e. Cntrlling Transactins
3. JDBC Driver Types
4. DataSurce
    a. Java EE and DataSurce, Using JNDI
5. Connecting to a database
    a. Connection interface, Establishing a connection
6. Connectin Pooling
    a. Overview, Usage, Advantages
7. Quiz
8. Summary
9. Hands on

4. Component Integration

3.3 Introduction

1. Database Integration
    a. Web Architecture choices
    b. Connecting servlets ta database via DataSource
2. Other Technologies
    a. XML and Web Services
    b. JMS – Java Message Service
3. Connecting to a database
    a. Connection interface, Establishing a connection
4. Labs
    a. Accessing a database from a servlet
5. Quiz
6. Summary
7. Hands on

3.4 Data Access

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    a. Executing statements, precmpiled statements and stred prcedures
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Project Work

After course completion, students will be assigned to work on live project to polish the technology skills you have acquired with us.