

JEE - Web Development using Servlet, JSP, JDBC

Description

Our JEE Internship is designed for students and professionals who want to be a web Developer in Java Domain. This Internship will cover topics like JSP and Servlet and some advanced concepts like Servlet Filter, Servlet Listener JSP EL etc. We will also learn how these tools help in developing a robust Web Application using Servlet & JSP.

Expectations and Goals

Through expert-led discussion and interactive, hands-on exercises, participants will learn how to, Implement the concept of Web Server, Application Server. Have a clear concept of JEE architecture. Understand the importance of Servlet, Filter, ServletListener, JSP and its tags. Implement MVC Architecture in JEE. Connect your Application with Oracle using JDBC drivers. Concepts of JSTL, EL, Java Beans etc.

- ✚ Live Sessions by the mentor.
- ✚ Opportunity to interact with trainer.
- ✚ After each session the recording of the session shall be provided.
- ✚ Doubt clearing sessions.
- ✚ 24/7 Support team to assist in software installation and other issues.
- ✚ Live Project implementation.
- ✚ Internship Certificate.
- ✚ Ardent Certificate contains logos of all the affiliations like Microsoft, Adobe, AutoDESK, EC-COUNCIL, MSME, NCVT, ISO 9001:2015.
- ✚ Softcopy of study materials shall be provided.

Prerequisites

All those who are looking forward to develop secured Web Application or Enterprise Application using Servlet & JSP are welcome to enrol for this Internship.

- Basic knowledge of Java is needed for this Internship.

Course Schedule

Module	Topic
Module 1	An Introduction to Web Development Fundamentals How web works The client server architecture Understanding the URL Different types of protocols (HTTP/HTTPS) Web request response cycle
Module 2	Front End Design using HTML, CSS, JavaScript & JQuery Basic tags of HTML HTML require tag and its uses HTML table and form tag Design of HTML page using CSS Different types of CSS An introduction to JavaScript & JQuery Difference between Client side validation & Server side validation Form validation using JavaScript

Module 3	<p>Introduction to RDBMS and Backend development using Oracle 11g/MySQL</p> <p>What Is A Database?</p> <p>What Is SQL?</p> <p>Overview of RDBMS</p> <p>Entity Relationship Model</p> <p>Entity</p> <p>Attributes</p> <p>Relationship</p> <p>Database keys(Primary key, Foreign key)</p> <p>Introduction to Oracle 12c</p> <p>DML,DDL,DCL statements</p> <p>insert, update, delete and select operation</p> <p>data types in Oracle</p>
Module 4	<p>Introduction to JEE architecture</p> <p>Different types of Java Application</p> <p>Two, three and multitier application</p> <p>advantages and disadvantages of above architecture</p> <p>MVC and MVC 2 architecture</p> <p>JEE architecture, components and container of JEE</p> <p>Web and Application server</p> <p>Introduction to Tomcat Server, installing and configuration with Eclipse</p> <p>Path setting of Tomcat</p> <p>Create a simple web application in Eclipse and run in Tomcat server</p>
Module 5	<p>Introduction to Servlet Technology</p> <p>Servlet and its Architecture</p> <p>How servlets work, role of Deployment descriptor (web.xml)</p> <p>Deployment descriptor vs Annotation</p> <p>Servlet API (javax.servlet and javax.servlet.http)</p> <p>Servlet Life cycle and its method</p> <p>How to create Servlet(Servlet interface, GenericServlet class, HttpServlet class)</p> <p>Writing service method, Constructing Responses</p> <p>Describe doGet() and doPost() method</p> <p>Deploy servlet in eclipse</p>
Module 6	<p>Working with Database (JDBC) using Servlet</p> <p>Introduction to JDBC, JDBC drivers</p> <p>How to connect any java application to any database using JDBC</p> <p>Insert, delete, update. Select operation</p> <p>DriverManager class, Statement, PreparedStatement interface</p> <p>ResultSet interface and its different methods to access data from database</p> <p>Access database from Servlet</p> <p>A simple registration page example</p>
Module 7	<p>RequestDispatcher and Session Management in Servlet</p> <p>RequestDispatcher and forward() & include() method</p> <p>difference between forward() and sendRedirect()</p> <p>Session Tracking using HttpSession, Cookie, URL rewriting and Hidden form field</p> <p>how to create session and set and get session</p> <p>HttpSession methods like getSession, setAttribute(), getAttribute() etc</p> <p>how to create cookie and set and get cookie</p> <p>data management using URL rewriting and Hidden form field</p>
Module 8	<p>Servlet Filter, Event and Listeners</p>

	<p>Introduction to Event Classes and Interfaces</p> <p>Listeners interface</p> <p>Servlet Filter and Filter API</p> <p>concepts of Filter Chain</p> <p>Server side validation using Filter</p>
Module 9	<p>Introduction to JSP (Java Server Pages)</p> <p>What is JSP</p> <p>Advantages of JSP over Servlet</p> <p>JSP architecture</p> <p>JSP life cycle</p> <p>Some JSP tags like Scriptlet Tag, declaration tag, Expression tag</p> <p>JSP implicit object</p> <p>JSP directives</p> <p>A simple example in JSP</p> <p>JSP Action elements [jsp:forward(), jsp:include()]</p>
Module 10	<p>Java Beans and jsp:useBean</p> <p>What is Java bean</p> <p>Setter, getter method and serialization</p> <p>Jsp:useBean tag to access a bean</p> <p>Jsp:setProperty and jsp:getProperty</p> <p>Use of bean as a model of MVC</p>
Module 11	<p>Scopes and Attributes</p> <p>Different scopes in servlet and JSP</p> <p>Request, session and Application scope</p> <p>Access those scope using servlet and JSP</p> <p>Attributes and different methods(setAttribute, getAttribute)</p> <p>Difference between ServletContext and ServletConfig</p>
Module 12	<p>JSTL and JSP Expression Language (EL)</p> <p>What is JSTL and JSTL LIBRARY</p> <p>Core tag, Functional tag, Formatting tag and SQL tag of JSTL</p> <p>A simple example showing all tags</p> <p>Introduction to EL</p> <p>Implicit objects in EL</p> <p>Scopes in EL</p> <p>Basic operator in EL</p>
Module 13	<p>Advance Topics</p> <p>Introduction to ORM tools</p> <p>Hibernate and its advantages</p> <p>Connect hibernate with Servlet</p> <p>A simple example to connect servlet/JSP with Hibernate</p>
Module 14	<p>Project work and documentation</p>