

**COMPUTER AIDED DESIGN CENTRE
JADAVPUR UNIVERSITY
Kolkata - 700 032**

Course: Winter Training on Advanced Java (Java Enterprise Edition (Servlet & JSP))

Duration: 4-week

Class duration: 2 Hrs/class

Prerequisite: Students want to enroll in this course must have knowledge of Core Java

Course coverage

	Module	Topics
1.	An Introduction to Web Development fundamentals	Client/Server architecture, URL, Different Protocols, Request response cycle
2.	Front end design using HTML and CSS	Basic Tags of HTML, Table and Form Tag, Design of HTML Pages using CSS
3.	Introduction to Javascript	Difference between Client side and Server side Validation, Form validation using Javascript
4.	Introduction to JEE architecture	Concept of Tier - Single, Two, Three tier Java Application, Components and Container of JEE, Introduction to Tomcat Web server, Installation in Eclipse, Create a simple Web Application in Eclipse and run in Tomcat Server
5.	Introduction to Servlet technology	Architecture, Deployment Descriptor vs Annotation, Servlet API, Life Cycle Methods, doGet and doPost methods, deploy Servlet in Eclipse
6.	Request dispatcher and Session Management in Servlet	Forward and include method, Difference between forward and sendRedirect method, Session Tracking using HttpSession and Cookie
7.	Introduction to JSP (Java Server Pages)	JSP architecture, Life cycle, Tags like Scriptlet, Expression and declaration tags, JSP implicit Object, directives, a simple example in JSP, JSP Action elements jsp:include() and jsp:forward()
8.	Java Beans and jsp:useBean, Different scopes and attributes	What is Java Bean, jsp:useBean tag to access a bean, jsp:setProperty and jsp:getProperty, Request, Session and Application scopes, accessing different scopes using JSP and Servlet
9.	Working with Database(JDBC) using Servlet and JSP	Introduction to JDBC, JDBC Drivers, Connect Java application to Database (Oracle) using JDBC, Insert, delete operation, DriverManager class, PreparedStatement interface
10.	--Do--	Update and Select operation, ResultSet Interface and its methods, Access Database from Servlet and displaying table using JSP.