

Advanced Java Programming

Course Code:ITAJP002

Total Session:45 Hrs

Objective:

Objective of this course is to provide the ability to design console based, GUI based and web based applications. Students will also be able to understand integrated development environment to create, debug and run multi-tier and enterprise-level applications.

UNIT-I: Servlets (14 Sessions)

Introduction, Basics of web, Servlets API, Servlet Interface. Generic Servlet, HttpServlet, Servlet life cycle, Steps to create servlets in Tomcat.

Servlet Config and Servlet Context, Writing Servlet to handle Get and Post method, reading user request data, concept of cookies, reading and writing cookies.

UNIT II: Java Server Pages (JSP) (10 Sessions)

Java Server Pages: Why JSP? Jsp directives, writing simple jsp page scripting elements. JSP and Java Beans, include, forward and plugin, managing sessions using jsp, jsp and databases, error handling. Writing custom tags, different scopes in jsp page. Introduction to struts, struts-config.xml, mvc architecture.

UNIT III: Java Mail (5 Sessions)

Sending Email, sending email through gmail server, receiving email, sending html content. Design Pattern: Singleton, DAO, DTO, MVC, Front Controller, Factory Method.

UNIT IV: Basics of Struts2 Struts (6 Sessions)

What and Why? Model1 vs Model2 Struts2 Features Steps to create Struts2 application Understanding Action class Understanding struts.xml file Struts2 in Eclipse IDE

UNIT V: Hibernate (10 Sessions)

Introduction, Architecture, Understanding first hibernate application. Hibernate with IDE, Hibernate Application, Hibernate logging. Inheritance Mapping, collection mapping, component mapping, association mapping.

Reference Books:

1. JAVA TM 2:The Complete Reference Tata MacGraw Hill
2. JDBC,Servlets and JSP Santosh Kumar K DreamTech Publication
3. The Complete Reference J2EE Keogh Jim