



Advanced Java Course and Java Framework:

Course Duration: 2–3 Months

Level: Beginner to Intermediate

Fee: 8000/ INR

Prerequisites: Core Java Intermediate Level

Module 1: Advanced Java Introduction

- Introduction to Advanced Java
- Java Enterprise Applications
- JDK, JRE & JVM Review
- IDE Setup (Eclipse / IntelliJ IDEA)
- Project Structure

Module 2: JDBC (Java Database Connectivity)

- Introduction to JDBC
- JDBC Architecture
- JDBC Drivers
- Database Connectivity (MySQL)
- Statement, PreparedStatement & CallableStatement
- CRUD Operations
- ResultSet Handling
- Batch Processing
- Transactions
- Connection Pooling Basics

Module 3: Servlet

- Introduction to Servlet
- Servlet Life Cycle
- Servlet API
- GET & POST Methods
- Request & Response Objects
- Servlet Configuration
- Servlet Context
- URL Rewriting
- Filters & Listeners
- Session Management
- Cookies & HttpSession



Module 4: JSP (Java Server Pages)

- Introduction to JSP
- JSP Life Cycle
- JSP Directives
- Scripting Elements
- Expression Language (EL)
- JSTL (JSP Standard Tag Library)
- Custom Tags
- MVC Architecture
- Form Handling
- Error Handling

Module 5: Hibernate

- Introduction to ORM
- Hibernate Architecture
- Hibernate Configuration
- Entity Mapping
- CRUD Operations
- HQL (Hibernate Query Language)
- Relationships (One-to-One, One-to-Many, Many-to-Many)
- Annotations
- Caching Basics

Module 6: Spring Framework

- Introduction to Spring
- Spring Core
- Dependency Injection (DI)
- Inversion of Control (IoC)
- Spring Beans
- Spring MVC
- REST API Development
- Spring Data JPA





Module 7: Spring Boot

- Spring Boot Introduction
- Spring Boot Project Setup
- RESTful APIs
- CRUD APIs
- Validation
- Exception Handling
- Spring Boot with MySQL
- Spring Data JPA
- Maven
- Application Properties
- Postman API Testing

Module 8: Build Tools & Version Control

- Maven Basics
- Git & GitHub
- Project Deployment
- WAR & JAR Packaging

Module 9: Mini & Major Projects

- Student Management System
- Employee Management System
- Online Banking System
- Library Management System
- E-Commerce Backend API

