

Java Full Stack Development Course

Course Duration: 3 Months

The Java Full Stack Development course is designed to equip learners with comprehensive skills in both front-end and back-end technologies using Java. The program covers core Java programming, Spring Boot, RESTful APIs, and modern front-end frameworks to develop scalable web applications.

Module 1: Core Java Programming

- Introduction to Java Platform, JVM, and JDK
- Java Syntax, Data Types, and Control Statements
- OOPs Concepts – Inheritance, Polymorphism, Encapsulation, Abstraction
- Exception Handling and Collections Framework
- File Handling and Streams

Module 2: Front-End Development

- HTML5, CSS3, and JavaScript Essentials
- Bootstrap for Responsive UI
- TypeScript and ES6 Features
- Building Front-End with Angular or React

Module 3: Advanced Java & Back-End Development

- JDBC and Database Connectivity
- Servlets and JSP Basics
- Spring Framework Overview
- Spring Boot for RESTful Web Services
- Spring Data JPA with Hibernate ORM
- Spring Security – Authentication & Authorization

Module 4: Database Management

- Introduction to Relational Databases
- MySQL / PostgreSQL Fundamentals
- Writing Queries – SELECT, INSERT, UPDATE, DELETE
- Joins, Views, Stored Procedures, and Indexing

Module 5: RESTful Web Services

- Creating REST APIs using Spring Boot
- JSON Data Handling and API Testing with Postman
- Error Handling and Logging with Spring Boot

Module 6: Version Control & Deployment

- Using Git and GitHub for Version Control
- Introduction to Maven and Gradle

- CI/CD Basics with Jenkins
- Deploying Java Applications on AWS / Azure / Tomcat
- Introduction to Docker for Java Applications

Module 7: Real-Time Project

- End-to-End Application Development using Java Stack
- Integrating Front-End with Spring Boot APIs
- Database Integration and Testing
- Deployment and Presentation

