

# Full Stack Java Course Content

1. Core Java (Hands on)
2. Web Fundamentals (Hands on)
3. Frontend Framework
4. Database and JDBC (Hands on)
5. Servlets and JSP
6. Hibernate and JPA (Hands on)
7. Spring and Spring Boot (Hands on)
8. Microservices
9. Testing and Build Tools
10. Deployment and DevOps Basics
11. Capstone Projects

## Core Java (Hands on)

- Java Basics, OOP, Collections, Generics
- Exception Handling, Multithreading, Streams, Lambda Expressions
- File I/O, Java 17+ Features

## Web Fundamentals (Hands on)

- HTML5, CSS3, Bootstrap, Responsive Design
- JavaScript ES6+, DOM, AJAX

## Frontend Framework

- Angular or React Fundamentals
- Components, Routing, Forms, HTTP Client, State Management

## Database and JDBC (Hands on)

- SQL, MySQL, PostgreSQL, Joins, Indexing
- JDBC, Transactions, Connection Pooling
- MongoDB Basics

## Servlets and JSP

- Servlet Lifecycle, Sessions, Filters
- JSP, JSTL, MVC Architecture

## **Hibernate and JPA (Hands on)**

- ORM Concepts, Entity Mapping, Relationships
- HQL, JPQL, Criteria API, Caching
- Spring Data JPA, Repositories

## **Spring and Spring Boot (Hands on)**

- IoC, Dependency Injection, Spring Core
- Spring Boot, Auto-Configuration, Actuator
- Spring MVC, REST APIs, Validation, Exception Handling
- Spring Security, JWT, OAuth2

## **Microservices**

- Microservices Architecture, API Gateway, Service Discovery
- Spring Cloud, Feign Client, Circuit Breaker
- Kafka and RabbitMQ Overview

## **Testing and Build Tools**

- JUnit, Mockito, Maven, Gradle
- Swagger and OpenAPI, Postman

## **Deployment and DevOps Basics**

- Docker, Jenkins, Git, GitHub Actions
- Deployment on AWS

## **Capstone Projects**

- E-Commerce, Banking, or Hospital Management Application
- Portfolio and Interview Preparation