Java Full Stack Internship Curriculum (3 Months + Mini Project)

Month 1: Core Java & Web Basics

Week 1: Core Java Fundamentals

- Introduction to Java
- JDK, JRE, JVM
- Data Types & Variables
- Operators
- Control Statements (if, switch, loops)

Week 2: Advanced Java & OOP

- Classes & Objects
- OOP Concepts (Encapsulation, Inheritance, Polymorphism, Abstraction)
- Constructors
- Packages
- Exception Handling
- Collections Framework

Week 3: Database Basics

- Introduction to SQL
- MySQL / Oracle Database
- CRUD Operations
- Joins & Constraints
- JDBC Connectivity

Week 4: Web Basics

- HTML5
- CSS3 (Flexbox, Responsive Design)
- JavaScript Basics
- Form Handling & Validation

Month 2: Frontend & Backend Development

Week 5: Advanced JavaScript

- ES6 Concepts
- DOM Manipulation
- Events
- Fetch API

Week 6: Frontend Framework (React – Basics)

- Introduction to React
- Components & Props
- State & Hooks
- Routing

Week 7: Backend with Java (Servlets & JSP)

- Introduction to Web Applications
- Servlets
- JSP
- MVC Architecture
- Session Management

Week 8: Backend Framework (Spring & Spring Boot)

- Introduction to Spring Framework
- Spring Boot
- RESTful Web Services
- Spring Data JPA
- Authentication & Authorization

Month 3: Full Stack Integration & Mini Project

Week 9: Full Stack Integration

- Frontend + Backend Integration
- REST API Consumption

- JWT Authentication

Week 10: Tools & Deployment

- Git & GitHub
- Maven
- Tomcat Server
- Deployment Basics
- Debugging & Logging

Week 11–12: Mini Project

- Project Planning & Design
- Implementation
- Testing
- Deployment
- Documentation

Mini Project Ideas

- Job Portal System
- Student Management System
- Online Quiz Application
- E-commerce Application
- Library Management System

Internship Outcomes

- Strong Java Full Stack Skills
- Hands-on Real-time Project Experience
- GitHub Portfolio
- Internship Certificate
- Interview & Resume Preparation