SPYPRO SECURITY SOLUTIONS Pvt. Ltd.,
C Y B E R S E C U R I T Y

3-Day Workshop on Java Full Stack Development

Day 1: Core Java & Frontend Fundamentals

Session 1: Core Java Basics

• Introduction to Java & real-world applications
• JVM, JRE, JDK overview
• Variables, data types & operators
• Control statements (if-else, loops, switch)
• OOP concepts (Class, Object, Inheritance, Polymorphism)

Hands-On Activity

• Writing basic Java programs
• Implementing OOP concepts with examples

Session 2: Frontend Development Basics

• Introduction to Web Development
• HTML structure & elements
• CSS styling & layouts
• JavaScript basics & DOM manipulation

Hands-On Activity

   • Creating a responsive webpage

   • Adding JavaScript validations

Day 2: Backend Development with java

Session 1: Java Backend (Spring / Spring Boot)

• Introduction to Backend & MVC architecture
• Spring vs Spring Boot
• Creating RESTful applications
• Controllers, Services & Repositories

Hands-On Activity

• Creating a Spring Boot project
• Building REST APIs

Session 2: Database & Security

• Introduction to Databases (MySQL)
• JDBC / JPA / Hibernate basics
• CRUD operations
• Authentication & Authorization (Spring Security)

Hands-On Activity

• Connecting Spring Boot with MySQL
• Implementing login & role-based access

Day 3: Advanced Concepts & Project

Session 1: APIs, Tools & Deployment

• REST APIs & JSON
• API testing using Postman
• Version control using Git & GitHub
• Basics of deployment

Hands-On Activity

• API testing using Postman
• Pushing project to GitHub

Session 2: Real-World Application & Project Building
    • Understanding enterprise application flow
    • Exception handling & logging
    • Best practices in Java Full Stack

Project

Task: Build a Java Full Stack Web Application
• **Frontend:** HTML, CSS, JavaScript
• **Backend:** Java (Spring Boot)
• **Database:** MySQL / SQLite

Tools Used:
• Java
• Spring Boot
• HTML, CSS, JavaScript
• Database
• Git & GitHub

Closing Session:

- Presenting projects

- Q&A and feedback