**Course Title: Java Full Stack Development**

**Course Duration:** 30 Hours

**Module 1: Introduction to Java Programming (2 hours)**

- Overview of Java

- Setting up Java Development Environment

- Basic Java Syntax and Data Types

- Control Flow and Looping Constructs

**Module 2: Object-Oriented Programming in Java (3 hours)**

- Classes and Objects

- Inheritance, Polymorphism, Encapsulation, and Abstraction

- Interfaces and Abstract Classes

**Module 3: Java Standard Edition (Java SE) (4 hours)**

- Collections Framework

- Exception Handling

- File I/O

- Multithreading Basics

**Module 4: Introduction to Spring Framework (4 hours)**

- Overview of Spring Framework

- Dependency Injection and Inversion of Control

- Spring Core Concepts

- Introduction to Spring Boot

**Module 5: Building Web Applications with Spring Boot (6 hours)**

- Spring Boot Architecture

- Creating RESTful APIs with Spring Boot

- Spring Boot Data JPA for Database Integration

- Unit Testing with JUnit and Mockito

**Module 6: Frontend Development with HTML, CSS, and JavaScript (3 hours)**

- Basics of HTML and CSS

- Introduction to JavaScript

- DOM Manipulation

**Module 7: Introduction to MySQL (3 hours)**

- Setting up MySQL Database

- Basic SQL Queries

- Database Design and Normalization

**Module 8: Integrating MySQL with Spring Boot (4 hours)**

- Spring Data JPA and Hibernate

- Configuring DataSource and EntityManager

- CRUD Operations with MySQL Database

**Module 9: Building a Full Stack Java Project (1 hour)**

- Integrating Frontend and Backend

- Implementing User Authentication

- Deploying the Application

**Module 10: Project Work and Q&A (2 hours)**

- Hands-on Project: Developing a simple full-stack Java web application

- Q&A session for doubt clarification