# Java Full Stack Development

**12 Weeks • Beginner to Advanced**

## Course Overview

A practical Java Full Stack Development program covering Core Java, object-oriented programming, HTML, CSS, JavaScript, SQL, Spring Boot, REST APIs, database integration, and real-world full stack web development.

## Course Module Structure

### Core Java Programming

Java introduction • Variables • Data types • Operators • Conditional statements • Loops • Arrays • Methods • Input and output • Exception handling

### Object-Oriented Programming with Java

Classes and objects • Constructors • Instance and static members • Methods • Encapsulation • Inheritance • Polymorphism • Abstraction • Interfaces

### Java Collections & Advanced Concepts

Strings • Wrapper classes • Collections • List • Set • Map • Generics • Lambda expressions • Streams • Functional interfaces

### Frontend Development with HTML & CSS

HTML5 • Semantic elements • Forms • Tables • CSS fundamentals • Selectors • Box model • Flexbox • Grid • Responsive design

### JavaScript & Frontend Interactivity

JavaScript fundamentals • Variables • Data types • Functions • Arrays • Objects • DOM manipulation • Events • Form validation • ES6 concepts

### Database & SQL

Database fundamentals • SQL • Tables • Primary keys • Foreign keys • CRUD operations • SELECT queries • Filtering • Sorting • Joins • Aggregations

### Spring Boot & REST APIs

Spring Boot introduction • Project structure • Dependency injection • Controllers • Services • Repositories • REST APIs • Request mapping • Exception handling

### JPA, Authentication & Full Stack Project

JPA & Hibernate • Entity relationships • CRUD integration • JWT authentication • Authorization • Frontend-backend integration • Git & GitHub • Deployment basics