



# Complete Java Development with Spring Boot

## Course Details

### Module 01 ●

#### Java Basics

- Introduction to Java Programming Language
- Variables, Data Types, and Operators
- Control Flow: Conditional Statements and Loops
- Arrays and Strings
- Object-Oriented Programming (OOP) Concepts: Classes and Objects

### Module 02 ●

#### Intermediate Java Concepts

- Inheritance, Polymorphism, and Abstraction
- Interfaces and Abstract Classes
- Exception Handling
- File Handling and I/O Operations
- Generics and Collections Framework

### Module 03 ●

#### Advanced Java Concepts

- Multithreading and Concurrency
- Reflection and Annotations
- Java Virtual Machine (JVM) Internals
- Design Patterns in Java
- Functional Programming with Lambdas and Streams

### Module 04 ●

#### Java Development with Spring Boot

- Introduction to Spring Framework and Spring Boot
- Building RESTful APIs with Spring MVC
- Data Access using Spring Data JPA
- Security with Spring Security
- Microservices Development with Spring Boot



## Module 05 ●

### Java Development

- Intermediate to Advanced Java Programming Concepts
- Java Collections Framework and Stream API
- Multithreading and Concurrency in Java

## Module 06 ●

### Advanced Java Development

- Spring Framework for building enterprise-scale applications
- RESTful API Development with Spring Boot
- Database Integration and ORM (Object-Relational Mapping)

## Module 07 ●

### Live Projects in System Design and Java Development

- Real-world System Design Projects
- Implementation of High-Level and Low-Level Designs
- Hands-on experience with Java Development and Spring Framework

## Assessment and Certification ●

- Regular Quizzes and Assignments to Assess Understanding
- Final System Design and Java Development Project
- Course Completion Certificate

## Duration & Prerequisites ●

- The course is designed to be completed in 4 months.
- Prior experience with programming and basic understanding of Data Structures and Algorithms is recommended. Familiarity with Java programming

## Who Should Enroll ●

- Working professionals aiming to enhance their skills in Data Structures, System Design, and Java Development
- Software Engineers looking to advance their career by mastering high-level and low-level design concepts
- Anyone interested in learning Java programming language and its application in building scalable software systems

## Outcome

By the end of this course, participants will have a comprehensive understanding of Data Structures, System Design, and Java Development. They will be proficient in designing scalable and maintainable software systems, implementing high-level and low-level designs, and developing Java-based applications using industry-standard frameworks and best practices.

## Our Mentors



**Vaibhav Goyal**

NIT WARANGAL

(Mentor : DSA and Full Stack)



**Drishti Mamtani**

BITS PILANI HYDERABAD

(Mentor : Data Science  
and Analytics Part)



**Shubham Mondal**

IIT KHARAGPUR

(Mentor : DSA and Coding)



## Our Students Are Placed In

