

# Java Full-Stack

Course syllabus · Live online · Beginner to Job-ready

Master Core Java, Spring Boot, databases and a modern front-end to build enterprise-grade applications.

|                      |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| <b>Live training</b> | 132 hours in total                                                                        |
| <b>Weekday batch</b> | 14 weeks · Monday to Friday, 2 hours per day (10 hours a week)                            |
| <b>Weekend batch</b> | 17 weeks · Saturday and Sunday, 4 hours each day (8 hours a week)                         |
| <b>Self-practice</b> | about 110 hours in total (labs, assignments, revision)                                    |
| <b>Total effort</b>  | about 242 hours including self-practice                                                   |
| <b>Mode</b>          | Live instructor-led online sessions · session recordings after each class · small batches |
| <b>Trainer</b>       | Pratiksha                                                                                 |
| <b>Batch start</b>   | Shared by our counselor                                                                   |
| <b>Batch timings</b> | Weekday / weekend options, shared by our counselor                                        |
| <b>Course fee</b>    | Shared by our counselor (varies with current offers)                                      |

## Who is this for?

Freshers, career switchers and developers targeting enterprise and product companies.

## Prerequisites

None. We start from the basics.

## What you will learn

- Write object-oriented Java with collections, streams and exception handling
- Build REST APIs with Spring Boot, JPA and Hibernate
- Secure applications with Spring Security and JWT
- Design and query relational databases
- Build a React front-end that consumes your API
- Use Maven, Git and deploy a full-stack application

## Tools and technologies

Core Java · Spring Boot · Hibernate/JPA · MySQL · REST APIs · React · Maven · Git · JUnit

## Detailed syllabus

| # | Module                 | Hours | Topics                                                                                                                                                                                                                                                                                   | Hands-on             |
|---|------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 1 | <b>Core Java</b>       | 26    | <ul style="list-style-type: none"> <li>• Java basics, control flow, arrays</li> <li>• OOP: classes, inheritance, interfaces, abstraction</li> <li>• Exceptions, generics, collections framework</li> <li>• Java 8+: lambdas and streams</li> <li>• Multithreading basics, I/O</li> </ul> | Console applications |
| 2 | <b>Web Foundations</b> | 8     | <ul style="list-style-type: none"> <li>• HTML5, CSS3, responsive layout</li> <li>• JavaScript essentials</li> </ul>                                                                                                                                                                      | Static site          |

| #  | Module                          | Hours | Topics                                                                                                                                                                                                                                | Hands-on                       |
|----|---------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 3  | Databases and SQL               | 10    | <ul style="list-style-type: none"> <li>Relational modelling</li> <li>SQL, joins, indexes, transactions</li> <li>JDBC</li> </ul>                                                                                                       | JDBC CRUD application          |
| 4  | Hibernate and JPA               | 8     | <ul style="list-style-type: none"> <li>ORM concepts, entity mappings</li> <li>Relationships, JPQL, transactions</li> </ul>                                                                                                            | JPA repository layer           |
| 5  | Spring Core and Spring Boot     | 20    | <ul style="list-style-type: none"> <li>IoC, dependency injection, bean lifecycle</li> <li>Spring Boot auto-configuration and starters</li> <li>Spring MVC, controllers, validation</li> <li>Exception handling and logging</li> </ul> | Spring Boot service            |
| 6  | REST APIs and Spring Data       | 12    | <ul style="list-style-type: none"> <li>Designing RESTful APIs</li> <li>Spring Data JPA</li> <li>Testing with JUnit and Mockito</li> </ul>                                                                                             | REST API for a business domain |
| 7  | Security                        | 6     | <ul style="list-style-type: none"> <li>Spring Security basics</li> <li>JWT authentication and role-based access</li> </ul>                                                                                                            | Secure the API                 |
| 8  | Front-end with React            | 16    | <ul style="list-style-type: none"> <li>Components, props, state, hooks</li> <li>Routing, forms, API integration</li> </ul>                                                                                                            | React client                   |
| 9  | Build, DevOps and Deployment    | 6     | <ul style="list-style-type: none"> <li>Maven, Git and GitHub</li> <li>Docker basics and deployment</li> </ul>                                                                                                                         | Deploy the application         |
| 10 | Capstone and Career Preparation | 20    | <ul style="list-style-type: none"> <li>Full-stack capstone build and review</li> <li>Data structures and interview practice</li> <li>Resume and mock interviews</li> </ul>                                                            | Capstone                       |
|    | Total live hours                | 132   |                                                                                                                                                                                                                                       |                                |

## Projects

- Console-based banking application
- Spring Boot REST API with JWT security
- Capstone: full-stack web application

## Assessment

Weekly assignments, module tests and capstone evaluation.

## Certification

Course completion certificate and a deployed project portfolio.

## What is included

- Live instructor-led online sessions
- Hands-on labs and assignments
- Session recordings after each class
- Doubt-solving support
- Course completion certificate
- Small interactive batches
- Unpaid internship opportunities

**Our promise:** we do not offer guaranteed-placement claims. We focus on building genuine skills so you are capable of clearing interviews and doing the job. Unpaid internship opportunities are available for practical exposure. Fees and batch dates vary with current offers, so please confirm them with our counselor. This syllabus is indicative and may be updated to reflect industry changes.

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