



# JAVA FULL STACK

RE JAVA . OOP . COLLECTION  
SPRING BOOT . JPA . REST .  
REACT . SQL . DEPLOYMENT

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## DURATION

**140 Hours**

## LEVEL

**Beginner to  
Advanced**

## MODULES

**9**

## MODE

**Classroom ·  
Online · Hybrid**

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## 01 COURSE OVERVIEW

**An enterprise full stack course on Java, Spring Boot and a React front end.** Core Java and object-oriented design come first, then JDBC and JPA, Spring Boot services, security and testing, with a React client consuming the API. Build tooling, layering and exception handling follow enterprise conventions throughout.

The capstone is a layered application with authentication, reporting and a deployed database.

### WHO IT IS FOR

Graduates targeting Java developer roles

Developers moving to Spring Boot

Support engineers upskilling to development

Professionals preparing for enterprise interviews

### PREREQUISITES

Basic programming knowledge. Java is taught from fundamentals.

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## 02 LEARNING OUTCOMES

**01** Write clean object-oriented Java with collections and streams.

**03** Persist data with JPA and Hibernate mappings.

**05** Secure endpoints with Spring Security and JWT.

**07** Test with JUnit and Mockito, then deploy the stack.

**02** Handle exceptions, files and concurrency correctly.

**04** Build REST services with Spring Boot.

**06** Consume APIs from a React front end.

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## 03 MODULE STRUCTURE

9 MODULES

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### 01 CORE JAVA

Data types

Control flow

Strings

Packages

Operators

Arrays

Methods

JDK tooling

LAB

CONSOLE APPLICATIONS

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### 02 OBJECT-ORIENTED JAVA

Classes and objects

Interfaces

Polymorphism

Enums

Inheritance

Abstraction

Records

LAB

DOMAIN MODEL

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### 03 COLLECTIONS AND STREAMS

List, Set, Map

Generics

Stream operations

Comparators

Optional

Collectors

LAB

DATA PROCESSING TASKS

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## 04 EXCEPTIONS, IO AND CONCURRENCY

Checked and unchecked exceptions

File IO

Executors

try-with-resources

Threads

Synchronisation basics

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## 05 DATABASES WITH JAVA

SQL refresher

Connection pooling

Relationships

Transactions

JDBC

JPA entities

JPQL

LAB

REPOSITORY LAYER

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## 06 SPRING BOOT

Dependency injection

Controllers

Repositories

Exception handlers

Configuration

Services

Validation

LAB

REST SERVICE

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## 07 SPRING SECURITY AND TESTING

Authentication

Roles and method security

JUnit 5

Integration tests

JWT

Password encoding

Mockito

LAB

SECURED, TESTED API

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## 08 FRONT END WITH REACT

Components and hooks

API integration

State management basics

Routing

Forms

Build output

### LAB

ADMIN CONSOLE

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## 09 BUILD AND DEPLOYMENT

Maven and Gradle

Dockerising a Spring Boot app

Logging

Profiles

Database migration with Flyway

Actuator

### PROJECT

LAYERED ENTERPRISE APPLICATION

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## 04 ASSESSMENT & CERTIFICATION

|                             |     |
|-----------------------------|-----|
| Module assignments and labs | 25% |
| Mini projects               | 20% |
| Internal assessments        | 15% |
| Final project and review    | 40% |

### CERTIFICATION

Learners who complete all modules, submit the final project and clear the review receive a course completion certificate from Kaizen Infinities Private Limited. Project work is documented for the learner's portfolio, and interview preparation is included in the closing sessions.

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## 05 CAREER OUTCOMES

### ROLES THIS PROGRAMME PREPARES FOR

JAVA FULL STACK DEVELOPER

JAVA BACKEND DEVELOPER

SPRING BOOT DEVELOPER

ENTERPRISE APPLICATION DEVELOPER

SOFTWARE ENGINEER

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### CALL US

+91 73051 33996

### EMAIL US

apply@kaizeninfinities.com

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