

### Certified Java Full Stack Developer (CJFSD)

OEM: Global Skill Development Council • Duration: 3 Days (24 hrs) • Code: GSDC-CJFSD

#### COURSE MODULES & TOPICS

##### 1 Introduction to Java Programming

- Introduction to Computer Programming
- Introduction to Java Programming
- Setting Up Development Environment
- First Java Program
- Java Basics
- Operators in Java
- Control Flow Statements
- Introduction to Arrays
- Hands-On exercises (8 practical tasks)

##### 2 Object-Oriented Programming (OOPs) in Java

- Introduction to OOPs Concepts
- Advanced OOPs Concepts
- Working with Objects and Methods
- Inheritance and Polymorphism
- Encapsulation and Packages
- Nested and Inner Classes
- Exception Handling in Java
- Hands-On exercises (7 practical tasks)

##### 3 Java Collection Framework

- Introduction to Java Collections
- List Interface and ArrayList
- LinkedList and Deque Interface
- Set Interface
- Map Interface
- Java 8 Features in Collections
- Hands-On exercises (6 practical tasks)

## 4 Database Connectivity with Java (JDBC)

- Java Database Connectivity (JDBC)
- MySQL and PostgreSQL Basics
- Database Operations with SQL
- Advanced SQL Queries
- Hands-On exercises (4 practical tasks)

## 5 Hibernate Framework

- Introduction to Hibernate
- Setting Up Hibernate
- Entity Classes and Mapping
- Relationships in Hibernate
- Advanced Hibernate Concepts
- Hands-On exercises (5 practical tasks)

## 6 Spring Framework and Spring Boot

- Introduction to Spring Framework
- Spring Core Concepts
- Spring AOP (Aspect-Oriented Programming)
- Spring Boot Introduction
- Building RESTful APIs with Spring Boot
- Spring Boot with Databases
- Advanced Spring Boot
- Hands-On exercises (7 practical tasks)

## 7 Front-End Development

- Introduction to HTML and Semantic HTML
- CSS for Styling Web Pages
- Introduction to JavaScript
- DOM Manipulation with JavaScript
- TypeScript Basics and Benefits over JavaScript
- Working with JSON and XML
- Introduction to Angular Framework
- Building Components and Services in Angular
- Angular Forms, Routing, and HTTP Client Integration
- Hands-On exercises (9 practical tasks)