# **Java Development Expert**

In this curriculum, We explain principles, characteristics, design and use cases along with project implementation for topics starting from easy ones like HTML, CSS etc. to a more complex ones like Spring Framework and Microservices.

Objective: After completion of this you'd become a Java & Microservices Expert.

#### **HTML**

- Introduction
- Parts in HTML Document
- Head Section
- Meta Information
- Favicons
- Body Section
- HTML Tables
- HTML FORMS

#### **CSS**

- Introduction
- CSS Basics
- CSS Introduction
- CSS Syntax
- CSS Styling
- Styling Backgrounds
- Styling Text
- Styling Fonts
- Types of CSS
- CSS Borders
- Selectors

## **JavaScript**

- Basic JavaScript
- DOM and BOM

- · Intervals and Objects
- · Let, Const, Arrow operator
- Map, Filter, Reduce, Template Literals
- forEach, for-in, for-of loop.

### **Bootstrap Basics**

- Introduction
- Basics

#### **Core Java**

- Introduction
- OOPS
- Array
- String
- Garbage Collection
- Exception Handling
- Nested and Anonymous Classes
- · Basics of File Handling
- Threading
- Reflection
- Wrapper Classes

#### **Advance Java**

- Introduction
- Collections
- JDBC
- Servlet & JSP

#### **Java 8 Features**

- Lamda Expressions
- Method References
- Stream API
- New Date & Time API
- Optional Class

#### **Oracle Database**

- Introduction
- DDL & DML
- Aggregate Functions
- Joins

#### **Maven Basics**

- Introduction
- Maven Project Setup

#### **Hibernate**

- Introduction
- Creating Persisting Classes
- Mapping Inheritence With Java Classes
- Creating Hibernate Application
- Maven Based Hibernate Application
- Save & Get Operations
- · Relationships in Hibernate

### **Spring Framework**

- Introduction
- IOC & Dependency Injection
- Introduction to Spring Boot
- Building a Spring Boot Application
- Introduction to Spring Web MVC
- Creating a Web Application in Spring Boot
- Creating Rest Services in Spring Boot
- Introduction to Hibernate & JPA
- Spring Data JPA

### **Microservices**

- Introduction
- Creating Microservices using Spring Boot
- Integration of Microservices
- Introduction to Spring Security
- Securing Microservices using JWT
- Securing MVC Web Applications Using Spring Security
- Implementing Single-sign on

- Implementing Remember Me feature
- Introduction to OAuth 2.0
- Spring cloud and Netflix OSS
- A sample Project