Java - Product Catalogue

Java

Duration - 12 Days / 96 Hours

Program Description

This program introduces learners to the fundamental concepts of Java programming designed for beginners. It covers key areas such as syntax, object-oriented principles, Data structures, Exception handling and file I/O. The course also introduces Collections Framework, basic Database connectivity using JDBC, key Java 8 features like lambdas and stream API, preparing learners to build simple, efficient Java applications.

Learning Goals

- Grasp the fundamentals of Java programming, including syntax and structure.
- Understand Object-Oriented Programming (OOP) concepts and apply them to software development.
- Explore basic data structures like arrays and strings for efficient data management.
- Learn how to handle errors using Exception Handling and perform File I/O operations and deeper understanding of Java collections and generics for complex data manipulation.
- Connect Java application with database using JDBC for data-driven solutions and testing with Junit 4.0/5.0

Course Topics

- Introduction to Java and its basic syntax.
- Object-Oriented Programming (Classes, Inheritance, Polymorphism).
- Exception Handling and File I/O operations.
- Java Collections Framework (Lists, Sets, Maps).
- Functional Programming in Java (Lambdas, Streams).
- Java Database Connectivity (JDBC) for data storage and retrieval.
- Testing applications with JUnit.

Advance Java (JEE)

Duration - 5 Days / 40 Hours

Program Description

The Advance Java course deep dives into more complex Java topics for those who are already familiar with the Java. This program covers Maven, Git, Developing Enterprise Java applications (JEE) using Spring Framework, leveraging database operations using Spring Data JPA, moving from Monolithic to Microservices architecture to build scalable, high-performance applications.

Learning Goals

- Learn how to manage large-scale projects using tools like Maven and Git.
- Understand the principles of enterprise Java applications and web technologies (JEE) using Spring Framework.
- Develop web service using Spring REST
- Enhance your skills in database operations using Spring Data JPA with MySQL/PostgreSQL
- Understand Microservice Architecture and its Inter Communication
- Backend development with Java and Spring Framework.

Course Topics

- Using Maven for project management and Git for version control.
- Introduction to Java Enterprise Edition (JEE)
- Introduction to Spring Core, Spring MVC and Spring REST and testing with Postman
- Persisting data using Spring Data JPA with MySQL/PostgreSQL
- Building Microservice application using Eureka Server, Microservices Communication, Cloud Gateway, Circuit breaker

Full Stack Java

Duration - 12 Days / 96 Hours

Program Description

This Full Stack Java course equips learners who are familiar with Advanced Java to build complete web applications using react as frontend and spring for backend development. learners will learn to integrate different technologies, manage databases, and implement DevOps practices for deployment.
The course also covers cloud deployment, making it ideal for those looking to master full-stack development.

Learning Goals

- Develop complete applications, covering both backend and frontend components.
- Master Spring Framework for building Java-based backend services.
- Learn to use React for creating responsive and dynamic user interfaces.
- Explore DevOps practices and automation testing tools for deployment and quality assurance.
- Understand cloud computing concepts and how to deploy applications in cloud environments.

Course Topics

- Frontend development with React for creating dynamic UIs.
- Working with NoSQL databases for unstructured data management.
- Implementing DevOps principles for continuous integration and deployment.
- Automating tests for full-stack applications.
- Deploying applications in the cloud using cloud platforms.