

JAVA COURSE CONTENT

Core Java

- Introduction to Java
- Data Types and Variables
- Classes and Objects
- Object Oriented Programming
- Constructors
- Control Statements
- Abstract Classes
- Interfaces
- Packages
- Exception Handling
- Multi-threading
- Collection Framework

- Generics
- Input Output Streams
- Java 8 Features

JDBC

- Introduction to SQL
- Introduction to JDBC
- Architecture of JDBC
- Types of Drivers
- JDBC-ODBC Bridge Driver
- Native-API Driver
- Network Protocol Driver
- Thin Driver
- CRUD Operations using JDBC in Java
- Batch Processing
- Transaction Management

Servlets

- Introduction to Web Technologies
- Ways to create a Servlet
- Implementing Servlet Interface
- Extending GenericServlet
- Extending HttpServlet

- Html with Servlet Communication
- Html with Servlet and Database Communication
- Servlet with Servlet Communication
- ServletConfig & ServletContext
- Session Tracking

JSP

- Introduction to JSP
- Architecture of JSP
- **JSP Scripting Elements**
 - Scriptlet Tag
 - Expression Tag
 - Declaration Tag
- **JSP Directive Elements**
 - page Directive
 - include Directive
 - taglib Directive
- **JSP Action Elements**
 - forward
 - include
 - bean
 - setProperty

- getProperty
- **JSP Implicit objects**
 - request
 - response
 - config
 - application
 - session
 - pageContext
 - page
 - exception
- **JSP and JDBC**

Hibernate

- Introduction to Hibernate
- Architecture of Hibernate
- Database CRUD Operations
- **Inheritance**
 - Table per Hierarchy
 - Table per Sub Class
 - Table per Concrete Class
- **Hibernate Relationships**
 - One-to-one
 - One-to-many

- Many-to-one
 - Many-to-many
- HQL and Restrictions
- Criteria in Hibernate

Spring

- Introduction to Spring
- Spring Core (Basic Concepts)
- Spring Core (Advanced Concepts)
- Spring Core (3.0 Annotations)
- Spring MVC
- Spring AOP
- Spring ORM
- Spring Transaction
- Spring JDBC
- Creating Views in Spring MVC

Spring Boot & REST API

- Spring Boot Introduction
- Spring Boot + Maven – Hello World Example
- Creating a RESTful Web Service Example
- Common Application Properties
- How to Change Default Tomcat Server Port

- How to Change Default Context Path
- How to Reload Changes Without Restarting the Server
- How to Create/Configure a Data Source
- How to Configure Multiple Data Source
- Spring Boot + Spring Security – RESTful Web Service with basic Authentication
- Spring Boot + Spring Security – RESTful Web Service with Database Authentication
- Spring Boot + Spring MVC + JSP Hello World Example
- Spring Boot - RESTful Web Service with POST Request in JSON Example

Micro Services

- Introduction to Microservices Architecture
- Fundamentals of RESTful Services
- Java Microservices with Spring Boot
- Building and Deploying Microservices
- Communication Between Microservices
- Microservices Data Management
- API Gateway and Service Discovery
- Security in Microservices

- Monitoring and Logging
- Testing Microservices
- Scaling Microservices
- DevOps and CI/CD for Microservices

Agile Methodology

- Agile Methodology Introduction
- Advantages & Disadvantages of Agile
- Agile Manifesto
- Agile Characteristics
- Agile SDLC
- Agile Scrum
- Agile Daily stand-up
- Product Management

Tools

- Maven
- JUnit
- Log4J
- GitHub
- Jira

Databases

- MongoDB
- MySQL

UI Technologies

- Html
- JavaScript
- TypeScript
- React JS

Softwares Required

- JDK 1.8
- Eclipse
- Apache tomcat
- MySQL database

React JS

- Introduction to React JS
- JSX
- Components
- State and Props
- React Hooks Java By Madhu Vundavalli
- Forms in React

- React Router
- Redux for State Management
- API Integration
- Performance Optimisation
- Testing React Apps

AI for Java

- Introduction to AI
- Why use Java for AI?
- Machine Learning Basics
- Data Handling and Pre processing
- Building Machine Learning Models in Java
- Neural Networks in Java
- Natural Language Processing (NLP) with Java
- AI in Real-Time Applications
- AI and Java for Image Recognition

AWS Cloud Fundamentals

- AWS Cloud Practitioner Essentials
- Introduction to Amazon web services
- Compute in the Cloud
- Global Infrastructure and Reliability

- Networking
- Storage and Databases
- Security

DevOps Fundamentals

- Introduction to DevOps
- DevOps Architecture
- DevOps Lifecycle
- Pipeline and Methodology



For More : <https://acquiescent.in>