



Java Full Stack **Web Developer.** Complete Program

1. WEB DESIGN

- 1.1. HTML 5
- 1.2. CSS 3
- 1.3. JavaScript
- 1.4. Bootstrap

2. CORE JAVA

- 2.1. Introduction To Java
- 2.2. Why Java
- 2.3. JVM
- 2.4. Class, Objects, Data Types
- 2.5. Object Oriented Programming Concepts
 - 1. Abstraction
 - 2. Encapsulation
 - 3. Polymorphism
 - 4. Inheritance
- 2.6. Java Coding Standards
- 2.7. Package – Creating package, naming package
- 2.8. Java Keywords
- 2.9. Access Specifiers – Public, Private, Protected, Default
- 2.10. Static Concept – Block, Variable, Method, Class
- 2.11. Control Statement – If, If...else, Nested if...else and SwitchCase
- 2.12. Flow Statement- for, while, do..while
- 2.13. Constructor- Default, Parameterized
- 2.14. Inheritance
- 2.15. Extends, super and this keyword
- 2.16. Method Overloading, Method Overriding

- 2.17. Interface
- 2.18. Abstract Class
- 2.19. Garbage Collection
- 2.20. Serialization
- 2.21. Exception Handling
- 2.22. Exception Handling- try, catch, throw, throws, finally
- 2.23. String
- 2.24. String Buffer
- 2.25. String Builder
- 2.26. Collection Framework
 - Collection Basics
 - Iterator Interface
- 2.27. Collection Framework Advance Concepts
 - 1. Comparable Interface
 - 2. Comparator Interface
- 2.28. Java Enum
- 2.29. Date Concept
- 2.30. File Handling Concept
 - 1. File Handling Basics
 - 2. Create/Write File
 - 3. Read File
 - 4. Delete File
- 2.31. Thread
 - 1. Concept, Lifecycle
 - 2. Extends Thread
 - 3. Implement Runnable Interface
 - 4. Thread Priorities
- 2.32. Multithreading
- 2.33. Thread Synchronization
 - 1. Synchronization
 - 2. Object Locking
 - 3. Inter Thread Communication
- 2.34. JDK 1.8.0 New Features with Hands-on
 - 1. Lambda Expression
 - 2. Functional Interface
 - 3. Default Method in Interface
 - 4. Static Method in Interface
 - 5. Method References
 - 6. Date Time API
 - 7. Stream API
 - 8. Collectors
 - 9. For each Loop
 - 10. String Joiner Class
 - 11. Parallel Sort
- 2.35. Programming practices, Concepts & Interview Preparation

3. J2EE

3.1. JDBC

1. JDBC Introduction
2. JDBC Architecture
3. Database Overview
4. JDBC Basics
5. My SQL
6. Create Database
7. Create Table
8. Insert, Update, Delete
9. Truncate
10. SQL Join
 - Inner Join
 - Left Outer Join
 - Right Outer Join
 - Full Outer Join
11. Aggregate Function
 1. MIN
 2. MAX
 3. AVG
 4. SUM
 5. COUNT
12. Java Application Using JDBC Connectivity
13. Handling SQL Exceptions
14. ResultSet
15. Connection
16. Statement
17. Prepared Statement
18. Callable Statement
19. JDBC CRUD Application

3.2. Servlet

1. Servlet Basics
2. Need of Server Side Programming
3. Servlet Hello World Application
4. Web.xml Structure
5. Servlet Directives- include(), forward(), sendRedirect()
6. HttpServletRequest, HttpServletResponse in Servlet
7. Servlet and JDBC Integration
8. Servlet, HTML 5, MySQL, Tomcat using Real Time Login Application

3.3. JSP

1. JSP Basics
2. Creating dynamic Web content with JSP
3. Scriptlet

4. Declaration
5. Servlet, JSP, MySQL, Tomcat Login Application
6. Servlet, JSP, MySQL, Tomcat CRUD Application

3.4. Programming practices, Concept & Interview Preparation.

4. FRAMEWORK

4.1. Hibernate

1. Hibernate Introduction
2. Hibernate Basics
3. Hibernate with HBM
4. Hibernate with Annotation
5. Hibernate CRUD
6. Hibernate Association Mapping
 1. One to One Mapping
 2. One to Many Mapping
 3. Many to One Mapping
 4. Many to Many Mapping
7. Hibernate Aggregation Projection
8. Hibernate Projection
9. Hibernate Application with Mysql DB- CRUD
10. Hibernate Application with Mysql DB, JSP-User Interface- CRUD
11. Programming practices, Concept & Interview Preparation.

4.2. Spring

1. Spring Introduction
2. Spring Basics
3. Inversion of Control
4. Dependency Injection
5. Beans Scope
 - 5.1 Singleton
 - 5.2 Prototype
 - 5.3 Request
 - 5.4 Session
 - 5.5 Global-Session
6. Auto wiring
7. Spring Annotations
8. Spring AOC
9. Spring MVC
10. Spring Security Implementation
11. Spring, Hibernate, Mysql, Maven- CRUD Operation
12. Java, Spring, Spring Security, Algorithm, Hibernate, Maven, Mysql Integration Application

4.3. Spring Boot

1. Spring Boot Introduction
2. Spring Boot Basics

3. Spring Boot Hello World Application
4. Spring Boot Devtool Dependency
5. Spring Boot with RESTful Service
6. Spring Boot, Spring Security – RESTful Web Service with Database Authentication
7. Spring Boot, Hibernate with RESTful Web Service
8. Spring Boot, Spring Data with RESTful Web Service
9. Spring Boot, Hibernate CRUD Application
10. Spring Boot, Spring Data CRUD Application
11. Spring Boot, ORM CRUD with Project Lombok

5. WEB SERVICES

- 5.1. SOAP Web Service
- 5.2. RESTful Web Service

6. MICROSERVICES

- 6.1. Microservices Introduction
- 6.2. Microservices Architecture
- 6.3. Microservices Project Structure
- 6.4. Microservices Frameworks
- 6.5. Spring Boot With Microservices Basics
- 6.6. Spring Boot, Hibernate, Maven, MySQL CRUD Application- POSTMAN API
- 6.7. Spring Boot, Spring Data, Maven, MySQL CRUD Application- POSTMAN API
- 6.8. Spring Boot, ORM, Microservices with Project Lombok
- 6.9. Spring Boot, Spring Data[JdbcTemplate], Microservices CRUD with Project Lombok