Java Full stack Development Course Content

This course covers a wide range of topics, including Java programming language, frontend development, back-end development, and more. It provides hands-on experience with real-world projects, helping you to apply what you've learned in a practical setting.

Introduction

1. What is Front End Development

2. Front End Technologies

3. What is Back End Development

4. Backend Development Technologies

5. What is Full stack Development

6. Advantages of Full stack

Development

7. Roles of Full stack Developer

Module-1: Backend Development

Core Java

8. What is Programming Language?

9. Types of programming languages

10. Java Introduction

11. History of Java

12. Principles of Java

13. Java Installation

14. Java Program Execution Flow

15. JDK vs JRE

16. JVM Architecture

17. Identifiers & Keywords

18. Data Types

19. Variables

20. Methods

21. Arrays

22. Strings Handling

23. Object Oriented Principles

24. Constructors

25. Interfaces

26. Programs related to OOPs

27. Final classes

28. Abstract Class

29. Exception handling

30. Multi-Threading

31. Wrapper classes

32. Auto Boxing, Un-Boxing

33. Java Memory Management

34. Introduction to Collection

Framework

35. List

36. Set

37. Map

38. Properties

39. Java 8 Features Introduction

40. Lambda Expressions

41. Functional Interfaces

42. Default & Static Methods

43. Method References

44. Date and Time API changes

45. Stream API

Advanced Java

1. Introduction to Advanced Java

2. Introduction to Database

3. Types of databases

4. Database Environment Setup

5. DB Table Creation

6. Table Altering

7. CRUD Operations

8. Primary Keys

9. Foreign Keys

10.JDBC Introduction

11.JDBC API Details

12.JDBC Architecture

13.JDBC Driver

14.Driver Manager

15.Connection

16. Statement

17. Prepared Statement

18.Callable Statement

19. Result Set

20. What is Dao Layer?

21. Steps to create JDBC Application

22.JDBC Applications Development

23.CRUD Operations

24.Connection Pooling

25.Most common exceptions in

JDBC apps

26. Servlets

27. What is web application?

28. Web application architecture

29.Client & Server

30. Http Protocol

31. What is Servlet?

32. Servlet API

33. Servlet Life Cycle

34. Steps to create Servlet

35.Deployment Descriptor

36. Servlet interface

37. Generic Servlet class

38. HttpServlet class

39. HttpServletRequest

40. HttpServletResponse

41. ServletConfig

42. ServletContext

43. Init Params

44. Forms development

45.Cookies

46. Hidden variables

47.JSP

48. Introduction to User interface

49. Introduction to JSP

50. Servlets vs. JSP

51. Life Cycle of JSP

52.JSP Implicit Objects

53.JSP Directives

54.JSP Scripting Elements

55.MVC Architecture Introduction

56. Forms Development

57.Mini Projects Development

Web Development

HTML

1. Web Development Overview

2. HTML Introduction

3. HTML Document Structure

4. Headings

5. Paragraphs

6. Typography

7. HTML Links

8. Images in HTML

9. Attributes

10. Lists

11. HTML Tables

12. Forms & Inputs

13. Block & Inline elements

14. Divs

15. Spans

16. Classes & Ids

17. HTML 5 Semantics

CSS

19. CSS Introduction

20. Basic CSS Selectors

21. Dev Tools Introduction

22. Fonts

23. Colors

24. Backgrounds

25. Borders

26. Box Model

27. Margin & Padding

28. Display, Alignment & Positioning

29. Pseudo Selectors

30. Responsive Layouts

31. Introduction to FlexBox

32. Building Responsive Website

JAVA SCRIPT

51. Introduction to Java Script

52. Script Tags

53. Console Output

54. Variables

55. Data Types

56. Strings & Strings Methods

57. Arrays

58. Java Script Objects

59. JSON

60. Arrays

61. Loops

62. Array Helpers

63. Conditionals

64. Functions

65. Constructor Functions

SPRING BOOT & MICRO SERVICES COURSE

SPRING BOOT

1) What is Spring Framework

2) What is Spring Boot

3) Differences between Spring & Spring

Boot

4) Spring Boot Overview

5) Pros & Cons of Spring Boot

6) Approaches to create Spring Boot

Application

a) Spring Initializer (start.spring.io)

b) Spring Starter Wizard in STS IDE

7) Introduction to Spring Boot Starters

a) Spring Boot Parent Starter

b) Spring-boot-starter

c) Spring-boot-starter-web

d) Spring-boot-starter-webflux

e) Spring-boot-starter-data-jpa

f) Spring-boot-devtools

g) Spring-boot-starter-mail

h) Spring-boot-actuator

i) Spring-boot-starter-test etc.

8) What is Start Class in Spring Boot

9) @SpringBootApplication annotation

internals

10) SpringApplication.run(..) method

internals

11) Spring Boot Application Boot

strapping

12) AutoConfiguration in Spring Boot

13) IOC container

14) Dependency Injection

a) Setter Injection

b) Constructor Injection

c) Field Injection

15) Stereotype Annotations

a) @Component

b) @Service

c) @Repository

d) @Controller

16) Base Package Naming convention

17) Component Scanning

18) Auto wiring

a) byType

b) byname

c) constructor

d) none

19) @Qualifier annotation

20) @Primary annotation

21) Introduction to @Configuration

annotation

22) Details of @Bean annotation

23) Bean Life Cycle

24) Bean Scopes

25) Banner in Spring Boot

26) Standalone application

development

27) Standalone application with layered

architecture

28) Runner in Spring Boot

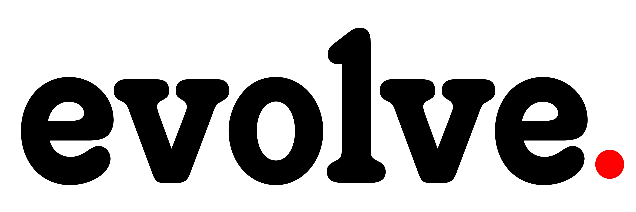
a) Application Runner

b) CommandLine Runner

\* SPRING DATA JPA

\* SPRING WEB MVC

\* SPRING REST



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