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| **Course Name:** |
| **Introduction** |
| **Course Duration: Days/Weeks/Months** |
| **\*Qualification(s)** |
| **Course Contents:** |

**BENEFITS TO STUDENTS:**

**EXIT PROFILE OF THE STUDENT:**

**FAQ's**

**Address:**

# Java Full Stack Course Details

**Java Full Stack**

This course offers a comprehensive introduction to Java Full Stack development, covering frontend backend technologies, Java programming, web development, database connectivity, frameworks lik and Hibernate, and AI-related topics.

6 Months

B.Tech/B.E. in Computer Science, MCA, or related field.

Basic knowledge of programming and web development will be an advantage.

# JAVA PROGRAMMING:

1. Introduction to Java, Features, Definitions, Writing First Java Program
2. OOPs Concepts, Class and Objects in detail, Variable Types, JVM Memory Structure 3.Conditional Statements, Control Statements/Loops & Arrays

4.String handling, String Buffer, String Builder 5.Inheritance, Polymorphism, Encapsulation, Abstraction 6.File Handling, Streams, Reader, Socket Programming 7.Multithreading, Synchronization, Serialization 8.Exception Handling

9.Collections and Generics 10.Introduction to Database Connectivity 11.Java AWT, Events, Swing

12.Lambda expression, Functional Interface, Stream API, Optional class

# WEB DEVELOPMENT:

1. HTML5, CSS3
2. Javascript, Jquery 3.Libraries (Bootstrap, SASS) 4.Version Control with Git 5.React

6.Components and Props, Handling Events and Conditional Rendering 7.Forms, Lifting State Up, and Introduction to React Router

# BACKEND DEVELOPMENT:

1. Introduction to MVC
2. Lifecycle and functionality of Servlets 3.Session & Cookies
3. Servlet Filter
4. Performing CRUD operations in Servlet
5. Introduction to JSP, JSP architecture and JSP Application Life Cycle 7.Java Beans in JSP & Expression Language

8.JPA (Java Persistence API)

# SPRING FRAMEWORK:

1.Introduction to Spring Framework, Its Features and Modules 2.Understanding Inversion of Control (IoC)

3.Dependency Injection (DI) in Spring 4.Introduction to AOP and its role in Spring

5.JDBC Template in Spring, Configuring data sources in Spring 6.Introduction to Spring ORM and its benefits

7.Configuring and using Spring Data JPA 8.Introduction to Spring Security 9.Configuring authentication and authorization

# ADVANCED SPRING/SPRING BOOT:

1.Understanding the architecture of Spring MVC 2.Creating and configuring controllers and views

3.Working with multiple view technologies & Configuring view resolvers 4.Implementing multiple controllers in a Spring MVC application 5.Introduction to web services, types, and benefits

6.Understanding the structure of a Spring Boot project 7.Configuring data sources in Spring Boot

8.Working with Spring Data JPA for database access 9.Configuring view resolvers in Spring Boot 10.RESTful Web Services

11.Understanding various HTTP Response Codes 12.Difference between SOAP and RESTful Web Services 13.Building RESTful Web Services with Spring Boot 14.Overview of microservices architecture

15.Setting up Spring Cloud Config Server 16.Eureka Naming Server

# HIBERNATE:

1. Introduction to Hibernate and Hibernate Architecture
2. Hibernate CRUD Operations and Mapping Collection and Associations 3.Hibernate Annotations and Session Factory

4.Hibernate Query Language (HQL) and Criteria API 5.Integration with Spring

# PROMPT ENGINEERING & GENERATIVE AI:

1.Key Concepts and Best Practices in Prompt engineering 2.Features, application and case studies of code llama 3.Architecture and features of Langchain

4.Types of Generative AI Models, Applications of Generative AI 5.Benefits of Using LangChain with Generative AI 1.Comprehensive understanding of full-stack development using Java 2.Hands-on practice with industry-standard tools and frameworks

1. Learn to develop both frontend and backend components of web applications
2. Gain proficiency in Spring, Hibernate, and other essential Java frameworks 5.Regular sessions with industry experts and practitioners

6.Focus on real-world projects and use cases 1.Proficiency in Java programming and OOP concepts

1. Ability to develop and manage both frontend and backend components of web applications
2. Hands-on experience with Spring and Hibernate frameworks 4.Skills to build and deploy RESTful web services and microservices Why should I enroll for this course?

Is a strong programming background required for this course?

Do I need any prior experience in web development to join this course? Will I be able to clear job interviews after completing the course?

What types of projects will I work on during the training? What is the future scope of Java Full Stack development? Do you provide job assistance after course completion?

How is the online training conducted? What if I miss any session?

What is the selection process during placement assistance? How will I access the online portal?

Do you provide a course completion certificate?

How much time will I need to dedicate each week to succeed in this course?

How is the course content structured?

What are the career prospects after completing this course? What makes this course unique?

Bebo Technical Education Services Pvt. Ltd.

(A High-end Training Division of Bebo Technologies Pvt. Ltd.) An ISO 9001 : 2015 Certified Company

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| **Question** |
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| **Answer** |
| This course is designed to provide a comprehensive understanding of Java Full Stack Development, covering both front-end and back-end technologies. By the end of the course, you'll have the skills needed to build complex web applications and be prepared for various job roles in the software development industry. |
| A basic understanding of programming concepts is helpful but not mandatory. The course starts with foundational topics in Java and gradually progresses to more advanced concepts, ensuring that both beginners and those with some programming experience can follow along. |
| No prior experience in web development is required. The course covers everything from HTML, CSS, and JavaScript to advanced topics in back-end development, ensuring that you have a solid foundation in full-stack development. |
| Yes, the course is designed to prepare you for job interviews by covering both theoretical concepts and practical skills. Additionally, you'll work on projects that simulate real-world scenarios, giving you the confidence to tackle technical interviews. |
| You will work on a variety of projects, including building dynamic web applications, implementing CRUD operations, developing RESTful web services, and integrating different technologies like Spring Boot and Hibernate. These projects will help you apply the concepts learned during the course. |
| Java Full Stack development continues to be in high demand across various industries due to the versatility and robustness of Java as a programming language. With the growing need for full-stack developers who can manage both front-end and back-end development, your skills will be highly sought after. |
| Yes, we offer job assistance to help you transition into the workforce. This includes resume building, interview preparation. |
| The online training is conducted through live sessions, and hands-on coding exercises. You’ll have access to a learning management system (LMS) where you can track your progress, submit assignments, and interact with instructors and fellow students. |
| You can also reach out to instructors for any clarifications needed. |
| The placement assistance process involves mock interviews, resume reviews and soft skill sessions. |
| After enrolling, you will receive login credentials for the online portal via email. This portal will be your primary platform for accessing course materials, submitting assignments. |
| Yes, upon successfully completing the course, you will receive a certificate that can be added to your resume. |
| The recommended time commitment varies depending on your prior experience and learning pace. On average, dedicating 15-20 hours per week should help you keep up with the course materials, assignments, and projects. |

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| The course is structured into modules, each focusing on a specific area of full-stack development. Modules include coding exercises, quizzes, and projects to reinforce learning and provide hands-on experience. |
| Upon completion, you can pursue various roles such as Full Stack Developer, Back-End Developer, Front-End Developer, Java Developer, and more. The skills acquired in this course are in high demand, providing ample career opportunities in the tech industry. |
| This course stands out due to its comprehensive curriculum, practical approach with hands- on projects, experienced instructors, and robust support system. Additionally, the integration of both traditional and modern web development technologies ensures you are well-prepared for the current job market. |