

# FULL STACK DEVELOPMENT

**Using Java & React** 

Course duration: 4 - 6 months



Offline/Online Program

500 Hours of Live Classes

**LMS Access** 

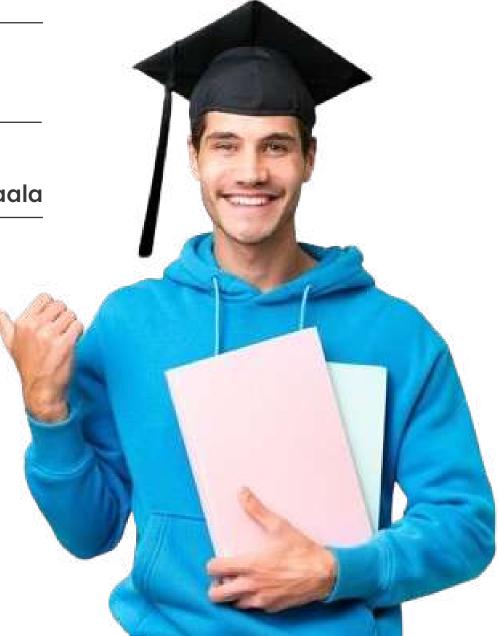
Internship Certificate

**MASTER FULL STACK DEVELOPMENT** 

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## Founder's Message

IT Shaala is a Leading IT Training Provider for Web Development & Software Development Courses in Pune. It is one of the best Online/Classroom Training Institute, which provides High-Quality Industry Level Training with Real Time Projects. IT Shaala is Institute which broadcasts IT training from basic to advanced technologies.

IT Shaala has specially designed Job Oriented Programme for "Freshers" and "Job Seekers". We provide training by Expert Trainers who are having 15+ years of industry experience, who guide the candidate with the best knowledge and work culture of most IT companies. The training would be accompanied by live project and placement support, which makes the candidates ready to be absorbed in the industry. Our Institute conjointly gives a chance within their educational programs to meet the needs with projected desires of quick developing networking trade.



As you embark on your journey from student to professional, remember that every challenge is an opportunity to grow and excel.



### About IT Shaala



At IT Shaala, our aim is to empower individuals with the knowledge and skills needed to thrive in the fast-paced world of information technology. We strive to provide accessible and practical education that opens doors to new opportunities.



### Vision

Our vision at IT Shaala is to be a trusted leader in IT education, inspiring lifelong learning and driving positive change in individuals' lives. We envision a future where everyone has the chance to excel in the digital age, regardless of their background or circumstances.





#### Mission

Our mission at IT Shaala is simple: to deliver high-quality IT training that transforms lives. We're dedicated to fostering a supportive and inclusive learning environment where students can grow personally and professionally, reaching their full potential in the world of technology.

## Scope in the industry









### **Course Syallabus**

### Core Java 8

- 1. Introduction to Java
- 2. Features of Java
- 3. Java development setup
- 4. Understanding Hello World program in detail
- 5. Identifier
- 6. Variable
- 7. Datatypes
- 8. Operators
- 9. Accept input from User
- 10. Control Statements
- 11. JVM architecture
- 12. Class and Object
- 13. Class Components
  - a. Instance variables, static variables, local variables
  - b. Instance methods, static method
  - c. Constructor
  - d. Instance Block, Static block
  - e. Static, non-static nested and local Inner classes
- 14. Oops Concept
  - a. Access Specifiers
  - b. Encapsulation
  - c. Inheritance

- d. Polymorphism [Method overloading & overriding]
- e. Abstraction [abstract class and interface]

#### 15. Java 8 Features

- a. functional interface
- b. default methods
- c. static methods
- d. ambda expression
- e. optional class
- f. method reference
- g. Stream API
- 16. Object class and java.lang package
- 17. Array
- 18.String Handling
- 19. Multithreading
- 20. Collection Framework
- 21. File Handling
- 22. Annotations
- 23. Enum
- 24. Reflection API basics

### Advance Java

- 1. Java Database Connectivity [JDBC]
- 2. Servlets

- 3. JSP
- 4. MVC Design pattern

### **Real Time Tools**

- 1. Maven
- 2. GIT
- 3. Mockito and JUnit
- 4. Lombook

- 5. IntelliJ Idea
- 6. Mapstruct library
- 7. SQL

### **Hibernate Framework**

- 1. Introduction to Hibernate
- 2. Hibernate Configuration
- 3. Entity Mapping
- 4. Working with Persistent Objects
- 5. Hibernate Query Language (HQL)
- 6. Criteria API
- 7. Native SQL Queries

- 8. Hibernate Caching
- 9. Hibernate Associations
- 10. Hibernate Inheritance Mapping
- 11. Transactions and Concurrency Control
- 12. Advanced Topics
- 13. Integrating Hibernate with Spring
- 14. Hibernate and Java Persistence API (JPA)

### Spring Framework

- 1. Spring Core
- 2. Spring AOP
- 3. Spring MVC
- 4. Spring JDBC

- 5. Spring Data JPA
- 6. Spring REST
- 7. Spring Boot

### HTML

- 1. Web Programming Introduction
  - a. The architecture of a website
  - b. Different technologies in making the website
  - c. Web Development Introduction
- 2. Introduction
  - a. History of HTML
  - b. Syntax of HTML
- 3. Headers
  - a. Different types of tags used inside HTML headers a.
- 4. Different Types of Tags

- a. Basic Tags
- b. Formatting Tags
- c. Grouping Tags
- d. List Tags
- e. Table Tags
- f. Form Tags
- g. Other HTML Tags
- 5. Semantic HTML Elements
- a. Different semantic HTML elements and it's

use case

## CSS

#### 1. Introduction

- a. Introduction of CSS
- b. Benefits, History of CSS

#### 2. Syntax

- a. Syntax
- b. Different ways to add CSS

#### 3. Selectors and Specificity

- a. Types of selectors
- b. CSS specificity

#### 4. Types of CSS properties

- a. Background
- b. Border
- c. Padding
- d. Text Fonts
- e. List
- f. Display and Positioning
- g. Other types of CSS Property

#### 5. Box Model

a. Introduction to Box Model

### Bootstrap

#### 1. Introduction

- a. What is Bootstrap Framework
- b. Why Bootstrap
- c. Advantages of Bootstrap Framework
- d. What is Responsive web page
- e. How to remove Responsiveness
- f. Features of Bootstrap
- g. Mobile-First Strategy
- h. Environment Set up
- i. Implementing Bootstrap in Applications

#### 2. Bootstrap Grid

- a. Bootstrap Grid and implementation of Bootstrap Grid
- b. What is Container & Offset Column

- c. Reordering Columns
- d. Advantages of Bootstrap Grid
- e. Display responsive Images & change class properties
- f. Customize Bootstrap's components & jQuery plug-in
- g. Bootstrap Typography & its use
- h. Bootstrap Tables, Form Layout & Bootstrap Button
- i. Muted and Warning Text Messages
- j. Carets Classes / Hide or show the text in Bootstrap
- k. Bootstrap Components / Plugins

### Javascript

#### 1. General overview of JavaScript

- a. Prerequisite of JavaScript
- b. Introduction and history of JavaScript
- c. How to include/add JavaScript in HTML
- 2. Syntax, Variables, Values, Data Types
- a. Syntax review
- b. Variable declaration
- c. Data types supported in JavaScript
- d. Key Difference between Var, Let, and Const

#### 3. Expressions and Operators

- a. What are Operators in JavaScript
- b. Different types of Operators in JavaScript

#### 4. Control structures

- a. Flow control and conditionals
- b. Loops and iteration
- c. Jumps

#### 5. Error handling

- a. Throwing errors
- b. Error handling

#### 6. Data types with methods supported

- a. String
- b. Numbers
- c. Arrays
- d. Functions

#### 7. JSON

a. What is JSON and syntax of JSON

#### 8. Regular Expressions

a. Creating regular expressions for matching patterns

#### 9. Objects

- a. Creating object
- b. Properties
- c. Methods
- d. Build-in JavaScript objects

#### 10. ES6 Features.

#### 11. Iterators and generators

- a. Working with Iterators
- b. Working with Generators

## 12. Prototype-based Object Oriented Programming

- a. Defining Constructors
- b. Prototypes
- c. Inheritance

#### 13. JavaScript in the Web browser

- a. Embedding JavaScript in HTML
- b. Execution of JavaScript code

#### 14. Browser Object Model

- a. Introduction to the browser object model
- b. Different use cases of a browser object model

#### 15. Document Object Model

- a. Document structure/DOM tree
- b. HTML elements and attributes
- c. Creating, changing, and deleting nodes

#### 16. Handling Events

- a. Types of events
- b. How to control events

#### 17. Ajax\*

- a. JavaScript and HTTP communication
- b. Synchronous and asynchronous request

#### 18. JavaScript Async

- a. JavaScript Callback
- b. Promises
- c. Async/Await

#### 19. Data Storage

- a. Cookies
- b. Web Storage
- c. IndexedD

### React

- 1. Introduction to React
- a. What is React?
- b. Why React?
- c. React version history
- d. React 16 vs React 15

- e. Just React Hello World
- f. Using create-react-app
- g. Anatomy of react project
- h. Running the app
- i. Debugging first react app

#### 2. Templating using JSX

- a. Working with React. createElement
- b. Expressions
- c. Using logical operators
- d. Specifying attributes
- e. Specifying children
- f. Fragments

#### 3. About Components

- a. Significance of component architecture
- b. Types of components
- c. Functional
- d. Class based
- e. Pure
- f. Component Composition

#### 4. Working with state and props

- a. What is state and its significance
- b. Read state and set state
- c. Passing data to component using props
- d. Supplying default values to props using defaultProps

#### 5. Hooks

- a. What are hooks
- b. Why do you need hooks
- c. Different types of hooks

#### 6. Routing with react router

- a. Setting up react router
- b. Different components of react router

#### 7. Rendering lists

- a. Using react key prop
- b. Using map function to iterate on arrays to generate elements

#### 8. Event handling in React

- a. Understanding React event system
- b. Understanding Synthetic event
- c. Passing arguments to event handlers

#### 9. Understanding component lifecycle and

#### handling errors

- a. Understand the lifecycle methods
- b. Handle errors using error boundaries

#### 10. Context

a. Introduction to Context and its use case

#### 11. Code-Splitting

a. Introduction to Code Splitting

#### 12. Redux

- a. What is redux and to use it redux
- b. Install and setup redux

#### 13. Immutable.js

- a. What is Immutable.js?
- b. Immutable collections
- c. Lists
- d. Maps
- e. Sets

#### 14. React Redux

- a. What is React Redux and why to use it
- b. React Redux Implementation

#### 15. Redux middleware

- a. Why redux middleware
- b. Different types of middleware and their implementation

#### 16. Webpack

- a. What is webpack
- b. Working with webpack configuration file

#### 17. Babel

- a. What is webpack
- b. ReactJS Using Babel

## My SQL

#### 1. Introduction to Databases and MySQL

- a. Overview of databases and their importance
- b. Introduction to MySQL and its features

#### 2. Installation and Configuration

- a. Installing MySQL server and client
- b. Configuring MySQL for the first use

#### 3. Basic SQL Syntax

- a. SELECT, INSERT, UPDATE, DELETE statements
- b. Creating and modifying tables
- c. Understanding data types

#### 4. Querying Data

- a. Filtering and sorting data
- b. Using WHERE and ORDER BY clauses
- c. Aggregating data with GROUP BY

#### 5. Joins and Relationships

- a. Understanding different types of joins
- b. Creating relationships between tables

#### 6. Indexing and Optimization

- a. Importance of indexing
- b. Optimizing queries for better performance

#### 7. Data Integrity and Constraints

- a. Enforcing data integrity with constraints
- b. Using PRIMARY KEY, FOREIGN KEY,

UNIQUE, and CHECK constraints

## 8. Introduction to Stored Procedures and Functions

- a. Creating and using stored procedures
- b. Defining and calling functions

### **Mongo DB**

#### 1. Introduction to NoSQL and MongoDB

- a. Overview of NoSQL databases
- b. Introduction to MongoDB and its features

#### 2. Installation and Configuration

- a. Installing MongoDB
- b. Configuring MongoDB for the first use

#### 3. Basic CRUD Operations

- a. Creating, reading, updating, and deleting documents
- b. Understanding collections and documents

#### 4. Querying Data

- a. Query language and syntax
- b. Filtering and sorting data
- c. Using projection to retrieve specific fields

#### 5. Indexes and Performance

- a. Importance of indexing in MongoDB
- b. Creating and managing indexes
- c. Analyzing and optimizing queries

#### 6. Data Modeling in MongoDB

- a. Designing collections and documents
- b. Embedding vs. referencing documents
- c. Schema design best practice

### **Student Reviews**

A testament to the power of determination, hard work, and dedication. Read what our alumni have to say about their experinece with us.

### Komal Kale

The instructors at IT SHAALA are undoubtedly experts in their fields. They were not only knowledgeable but also adept at conveying complex concepts in a clear and understandable manner.



### Sandesh Dongardive

Great learning experience at ITshaala, ITshaala provides quality training and the best infrastructure. I got best guidance from Sandeep sir. IT shaala helped me to shape my carrier as IT professional.



### Kishor Pol

Had a fanstastic learning experience at IT Shaala, one of the top institute for Backend Developer training. The institute offers excellent training and top-notch infrastructure



#### Pruthviraj Gaikwad

I have been taking classes for a month now and I am getting good knowledge here .Sandeep sir's teaching method is very nice, nonteaching staff is also supportive .If you want to get knowledge then this is the right place.



### **Student Placements**







**Kedar Thakur** Software Engineer



**Akshay Jadhav** Backend Developer



**Rohan Bhadke** FullStack Developer



**Avanti Urkude** FullStack Developer

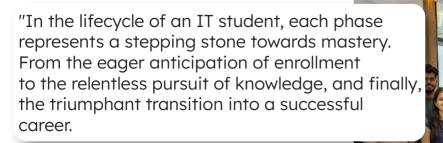


**Vinay Divekar** Sr.Associate Developer



**Pratik Yawalkar** Software Developer

### Life at IT Shaala







IT Shaala

"Embark on the journey of IT education with enthusiasm, navigate through challenges with determination, and emerge as a skilled professional ready to make your mark in the digital landscape."



# **IT Shaala**

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For any query, Connect us at:













