

Full Stack Developer – Java & React JS Course Content

Section 1: HTML 5

- Introduction - Web
- What are the different Types of Web Apps overview?
- Introduction to HTML
- Define HTML Structure
- Difference between Tag vs Element
- Difference between Semantic vs Non-semantic elements
- Difference between Block level elements vs Inline elements
- HTML Elements
- HTML Forms & its Attributes
- HTML Input Elements
- HTML Global Attributes
- HTML Element Specific Attributes

Section 2: CSS & Bootstrap

- What is CSS?
- Understanding the CSS Syntax.
- CSS Selectors
- How To Add CSS in HTML
- CSS Colors & Backgrounds
- CSS Borders, Margins, Padding, Height and Width
- Responsive Web Design – Media queries
- What is Bootstrap?
- Get Start with Bootstrap
- Containers
- Grid System
- Structure of a Bootstrap Grid
- Bootstrap Colors
- Bootstrap Tables
- Bootstrap Jumbotron
- Bootstrap Alerts
- Bootstrap Buttons

Section 3: JavaScript

- Introduction – Javascript
- JavaScript Events
- JavaScript Functions
- Inbuilt methods in JS
- Arrays in JavaScript
- Objects in JavaScript
- Conditional and loops in JavaScript
- HTML DOM Manipulation

Section 4: ES6 JavaScript

- History of JavaScript
- Features
- let & const and its example
- Arrow Functions
- Alternative
- Tips and Arrow Functions
- Exports and Imports
- Tips for exports and imports
- Classes
- Classes example
- Inheritance
- Spread and rest Parameter
- Destructing

Section 5: What is React JS?

- React JS Introduction
- Advantages of React JS
- Work flow of React JS
- Scope of React JS

Section 6: Overview of JSX

- Introduction of Virtual DOM.
- Difference between JS and JSX
- React Components overview
- Containers and components

- What is Child Components?
- What is Namespaced components?
- What are the JavaScript expressions available in JSX?

Section 7: React JS Environment Setups

- Node setup
- How to use NPM?
- How to create package.json and purpose of it?
- ES6 Introduction and features.
- Webpack Overview
- Best IDE for React JS and How to write optimised code in React JS?
- React JS browser plugins overview.

Section 8: A Real-Time Application by using React JS

- Create a React component with JSX template.
- How to create Nested Components?
- What is React JS render?
- React Props overview.
- Introduction of Props validation with data types.
- Flow of States, Initialize states and update states.

Section 9: React JS forms and UI

- Lists of Form components.
- Setup Controlled and Uncontrolled form components.
- Control Input elements.
- How to set default values on all formats of Input elements.
- React JS Form validations.
- How to write Styles?
- Animations overview

Section 10: React JS Component Life Cycles Overview

- Initial Render
- Props Change
- Stage Change
- Component willMount
- Component didMount
- Component Unmount

Section 11: Routing in React JS and Other JS concepts

- Single Page Application Overview.
- How to configure React Router?
- History of Router
- How to Handle Conditional Statements in JSX?
- IIFE in JSX for complex logic overview.

Section 12: Event Handling in JSX

- onBlur, onKeyUp, onChange and other useful primary events in React JS.
- How to share events between the components?

Section 13: How to write Styles in React JS?

- CSS and inline styles in React JS overview.
- Introduction to styled components

Section 14: React Router with Navigation

- How to Load the router library?
- Configure the React Router?
- How to Pass and receive parameters?
- Integration of React-cookie overview.

Section 15: Flux, Redux overview

- What is Flux Architecture?
- What are the Flux Components available?
- Stores.
- Dispatchers.
- View Controllers.
- Actions.
- Views.
- How Flux works?
- Flux and React works together.
- Introduction to One Store.
- Provider Component
- Actions
- Reducers
- sagas

- Dispatchers
- View Controllers
- Selectors

Section 16: Integration with other libraries

- Gulp & Browserify
- React with jQuery
- React & AJAX

Section 17: React Server Integration with Deployment

- https
- httpster
- npm

Section 18: Hooks

- Understanding Hooks
- The useState hook
- Side effects using the useEffect hook
- The useContext hook
- The useReducer hook
- Writing your own hook

Section 19: Code Splitting

- Code splitting & Suspense
- Route Based Code Splitting
- Lazy Loading

Section 20: Epilogue

- The React ecosystem

Section 21: Webpack Primer and Isomorphic React

- Webpack and its use
- Setting up and installing Webpack
- Working with the configuration file of Webpack
- Working with loaders

Section 22: Introduction - Java

- Introduction about Programming Language Paradigms
- Why Java?
- Flavors of Java.
- Java Designing Goal.
- Difference between JDK,JRE and JVM
- JVM –The heart of Java .
- Java Architecture
- Java’s Magic Bytecode.

Section 23: Programming Fundamentals

- Data types
- Difference between Primitive & Non Primitive Datatypes
- Variable Declaration & Initialization
- Type Casting
- Operators and its types

Section 24: Control Structure and Looping Statements

- IF conditions
- IF-ELSE conditions
- ELSE-IF Ladder conditions
- SWITCH-CASE statements
- “FOR” Loop
- “WHILE” Loop
- “DO-WHILE” Loop
- ENHANCED “FOR” Loop

Section 25: OOPS INTRODUCTION AND BASICS

- What is OOPS?
- Necessity and Advantage of OOPS
- OOPS Designs with real-time examples.
- What is mean by class and object?

- Relation between a Class and an Object
- How to create class and object

Section 26: OOPS BASICS (CLASSES & OBJECTS)

- Components of a Class
- Types of Variables and its uses.
- Constructor advantages and its types
- Ways to initialize the Object

- “this” keyword
- Static Block & Instance Block

Section 27: OOPS CONCEPTS - INHERITANCE

- Inheritance and its advantages
- The “extends” keyword
- Types of Inheritance
- Single Inheritance
- Use of “super” keyword and forms of “super” keyword

Section 28: OOPS CONCEPTS – ENCAPSULATION ALONG WITH PACKAGES

- What is package and its advantages
- Types of packages
- Static Import
- Access Modifiers
- Encapsulation

Section 29: ARRAYS AND STRINGS

- What is Array and its advantages
- Types of Array
- Jagged Array
- String, String Buffer, String Builder

Section 30: EXCEPTION HANDLING

- What is Exception and its types
- How to handle exception?
- Multiple catch blocks
- Finally block
- Difference between throw and throws
- Custom Exception

Section 31: DATABASE

- What is Database?
- What is MySQL?
- Parts of MySQL
- Operators and Clauses in MYSQL.
- Functions and procedures in MYSQL.

Section 32: JDBC

- What is JDBC?

- Types of Drivers
- Loading the drivers
- Connection, Statement, PreparedStatement, CallableStatement, ResultSet Interfaces
- Batch Updates

Section 33: UTIL PACKAGE – COLLECTIONS FRAMEWORK

- The “Collection” Interface
- List, Set and Map Interfaces
- Cursors in java and its differences
- Difference between the implementation classes of List, Set and Map

Section 34: GENERICS IN COLLECTIONS FRAMEWORK

- Generics in Java
- Types of Generics
- Uses and Limitations of Generics
- Custom objects with Generic collections
- Sorting in Collections

Section 35: SPRING BOOT ARCHITECTURE

- Spring Boot Framework definition
- Spring Boot Framework design principals
- Spring Boot interfaces
- Bean Factory
- Application Context
- Factory methods

Section 36: INVERSION OF CONTROL

- Dependency Injection advantages
- Setter Injection
- Constructor Injection
- Bean Life Cycle
- Inner Beans
- References to other beans
- Scopes in Spring

Section 37: AUTOWIRING & SPRING BOOT MISCELLANEOUS

- Autowiring advantages and modes
- Spring Boot with Collections
- Reading values from Properties file
- Expression Language in Spring Boot
- Events Handling in Spring Boot

Section 38: AOP

- Spring Boot AOP Advantages
- AOP Configuration
- AOP Terms
- AOP Types of Advices

Section 39: SPRING BOOT JDBC

- JDBC Templates
- Row Mapper
- BeanProperty Row Mapper
- Bean Row Mapper
- Resultset Extractor

Section 40: SPRING BOOT ORM

- Database access layer for object, relational databases
- Spring Boot Framework Benefits with hibernate
- Spring Boot with Hibernate configuration files
- SpringData JPA
- Crud Repository and JPA Repository

Section 41: SPRING WEB MVC AND SPRING BOOT

- MVC Architecture in Spring
- About Dispatcher Servlet
- Types of Handler Mappings
- Types of Controller
- Types of View Resolver
- Spring MVC Annotations
- Spring MVC with CRUD operations
- Spring with Web Services
- Spring Boot Application
- Difference between Spring and Spring Boot
- Spring Boot Annotations

Section 42: SPRING BOOT - OVERVIEW

- What is Spring Boot?
- Developing a Project with Spring Boot Initializer
- Developing a REST API Controller with Spring Boot
- Examining the Spring Boot Project Structure - Part 1
- Examining the Spring Boot Project Structure - Part 2
- Spring Boot Starters - A Curated List of Dependencies
- Parents for Spring Boot Starters

Section 43: SPRING BOOT DEV TOOLS AND SPRING BOOT ACTUATOR

- Spring Boot Dev Tools - Overview
- Spring Boot Actuator - Overview
- Spring Boot Actuator - Accessing Actuator Endpoints
- Spring Boot Actuator - Applying Security to Actuator Endpoints

Section 44: SPRING BOOT - RUNNING SPRING BOOT APPS FROM THE COMMAND LINE

- Running Spring Boot Apps from the Command Line - Overview
- Running Spring Boot Apps from the Command Line - Coding

Section 45: SPRING BOOT - APPLICATION PROPERTIES

- Injecting Custom Application Properties
- Configuring the Spring Boot Server

Section 46: Real Time Projects

- 5+ Real-time projects (Full stack coverage)
- Setup Git for local repository
- Create a GitHub account
- Sync the code base with GitHub repo
- Firebase Hosting Overview
- Setting up Firebase in local
- Host your project in Firebase

Section 47: Placements

- Build your Professional Resume
- Update LinkedIn Profile
- Interview-based Training – GD, Tech round, HR panel
- Minimum 5 Mock interviews before Real interview
- 100% Placement Guaranteed
- Join your Dream Job

Free Complementary Courses – 25hrs

AWS – Cloud Computing

Section 1: Cloud Computing Introduction

- History of Cloud Computing
- What is Cloud Computing?
- Why Cloud Computing?
- Advantages of Cloud Computing

Section 2: Cloud Computing Service Models

- What is Software as a Service (SaaS)?
- Platform as a Service (PaaS)?
- Infrastructure as a Service (IaaS)?

Section 3: Introduction to AWS Architecture

- Key Considerations for Web Hosting in AWS

Section 4: AWS – Management Console & Account

- How to Access AWS?
- AWS Identity & Access Management (IAM).
- Creating Free Tier Account in AWS
- Introduction of AWS Management Console / CLI / SDK

Section 5: Compute Services in AWS

- AWS EC2
- AWS Lambda

Section 6: Storage and Content Delivery Services

- AWS S3
- AWS EBS

Section 7: Database Services

- Amazon RDS
- AWS DynamoDB

Section 8: Networking Services in AWS

- VPC AWS
- Route 53

Agile Scrum

Section 1: Definition of SCRUM

Section 2: Agile Manifesto

- Scrum Master
- Product Owner

Section 3: Scrum Roles and Responsibilities

- Development Team

Section 4: Typical Sprint Phases

- Product Backlog
- Sprint Planning
- Sprint Backlog
- Sprint
- Daily Scrum
- Sprint Review
- Sprint Retrospective