

Full Stack Developer – Java & Angular 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: TypeScript

- TypeScript Introduction
- TypeScript Environment Setups
- Variables in TS
- Datatypes in TS
- OOPS in TypeScript
- Features in TS

SECTION 5: Angular Introduction

- Angular- Definition
- Difference between Framework & Library?
- History of Angular and its versions.
- Why Angular?
- What are the Features of Angular
- Define Single Page Application
- What is the Difference between SPA & Traditional Application?
- Define MVC
- How MVC works in Client & Server sides?

SECTION 6: Angular Environment setups

- What is Angular CLI?
- What is the Purpose of the CLI?
- Angular CLI installation.
- CLI vs Without CLI Overview.
- Create an Angular App by using CLI.
- Compiling the Angular App & Open it in a browser.
- Angular app Bootstrapping process

- About Angular libraries
- Brief explanation about the structure of the Angular App.

SECTION 7: Main Building Blocks of Angular

- An Overview of the below Main Building blocks of Angular
 - Modules
 - Components
 - Decorator
 - Metadata
 - Templates
 - Data binding - Directives
 - Services
 - Dependency Injection.

SECTION 8: Angular Modules

- Angular Module Overview.
- Define the Importance of the Module?
- Why Modules?
- Root Module, Core Module, Feature Module and Shared Module - Overview.
- How to create Angular Modules?
- @NgModule Decorator & its Meta data properties - Overview.

SECTION 9: Components

- Angular Component - Overview.
- @Component decorator & its Meta data properties.
- Component's Structure overview.
- What are the ways to render a Component in the view?
- Component Lifecycle Hooks.
- Nested or Parent & Child Component - Overview

SECTION 10: Data Binding, Property Binding, Event Binding & 2-way Data Binding

- Data Binding Introduction
- Define String Interpolation.
- Property Binding - Overview.
- what is Custom Property Binding?

- Overview of Event Binding.
- String Interpolation VS Property Binding
- Two-way Data Binding
- Implementing the 2-way Data Binding

SECTION 11: Services

- Introduction - Service.
- Importance of Service.
- How to create Services in Angular?
- What are the ways to Provide Services in Angular?
- Dependency Injection - Overview.
- How to use Dependency Injection?
- What is @Injectable()?

SECTION 12: Directives

- Directives - Introduction.
- Component VS Directives
- What are the Different kind of Directives available in Angular?
- Difference between Structural & Attribute Directives.
- Overview of All Structural & Attribute Directives.
- @Input decorator and its methods.
- What is ElementRef and its purpose?

SECTION 13: Components Communication

- Overview of Components Interaction.
- Component Interaction from Parent to Child.
- Component Interaction from Child to Parent.
- @ViewChild decorator overview
- @Input & @Output decorator overview

SECTION 14: Reactive Form in Angular

- What is Reactive Form?
- Difference between Template Drive & Reactive Form
- What is form group & form control?
- How to sync view & Reactive form TS?
- What is Patch Values & Set Values?
- How to get Reactive from Values?

SECTION 15: Service and Dependency Injection in Angular

- Service in Angular
- Create & configure Service in Angular.
- How to do Dependency Injection in Angular?
- Define Singleton Object

SECTION 16: Routing in Angular

- What is Routing?
- How Routing makes our App into SPA?
- How to configure Routing in an Application?
- Load our components dynamically based on url path.
- How to create Child Route?
- Navigating to other links programmatically.
- Passing Parameter to the Routes.
- Client-side authorization using Route Guard

SECTION 17: HTTP & Observable in Angular

- HTTP Client in Angular.
- REST API - Overview
- How to establish HTTP request to Server side.
- How HTTP Mechanism works?
- What are the methods available in HTTP?
- Define Observable & Observer
- What are the call back methods available in Observable?
- Creation of a Custom Observable
- Define next(), error() and complete()
- How to send Query Params & Custom Headers?
- How to connect any backend & APIs?

Section 18: Authorization in Angular & JWT

- Client side Authorization vs Server side Authorization.
- Server side Authorization by using JWT Token.
- Set JWT Key Expiry time.
- HTTP interceptors - Overview.
- How to configure HTTP interceptors?

Section 19: 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 20: Programming Fundamentals

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

Section 21: 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 22: 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 23: 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 24: 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 25: OOPS CONCEPTS – ENCAPSULATION ALONG WITH PACKAGES

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

Section 26: ARRAYS AND STRINGS

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

Section 27: 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 28: DATABASE

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

Section 29: JDBC

- What is JDBC?

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

Section 30: 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 31: GENERICS IN COLLECTIONS FRAMEWORK

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

Section 32: SPRING BOOT ARCHITECTURE

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

Section 33: INVERSION OF CONTROL

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

Section 34: 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 35: AOP

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

Section 36: SPRING BOOT JDBC

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

Section 37: 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 38: 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 39: 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 40: 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 41: 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 42: SPRING BOOT - APPLICATION PROPERTIES

- Injecting Custom Application Properties
- Configuring the Spring Boot Server
-

SECTION 43: 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 44: 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