**Course: Java Full stack training**

**Duration : 45-50 Hours**

JavaScript (ECMA-5)

1. Variables
2. Functions
3. Conditional statements
4. loops
5. Prototyping
6. OOPS
   1. Objects
   2. Classes
   3. Inheritance
   4. Encapsulations
   5. Polymorphism
7. Garbage collection
8. Closers
9. Singleton Pattern
10. Module Pattern
11. Event Propagation/ Bubbling
12. Event loop
13. Interview questions on each and every topic.

Typescript and ES6

**Module 1: Introduction**

* What is TypeScript?
* Benefits of TypeScript:
* Setup the Environment
* First TypeScript Example

**Module 2: Data Types and Variables**

* Basic Data Types
* Arrays
* Tuples
* Any and void
* null and undefined
* Difference between let and var
* Const declaration

**Module 3: Working with Classes**

* Writing and Using Classes
* Constructor method
* Inheritance of classes
* Type casting
* Type Assertion
* Static Properties
* Abstract class

**Module 4 : Modules and Namespaces**

* Export Syntax
* Import Syntax
* Default exports
* Declaring and Using Namespaces

HTML5

1. html4 VS HTML5
2. Semantic tags
3. HTML 5 APIS
   1. Geo location
   2. Local storage
4. HTML 5 new tags
   1. Video
   2. Audio
   3. Canvas
5. input types
   1. email
   2. url
   3. number
   4. date

**Bootstrap -CSS**

Node

1. Introduction to Node JS
2. Node JS Architecture.
3. Node JS as platform
4. Running sample code on node JS.
5. Setting up of project on node JS

Build tools

1. Web Pack

Source Control

1. Git

Core Java :

**Chapter 1: Introduction to Java programming**

1. The Java Virtual Machine
2. Variables and data types
3. Conditional and looping constructs
4. Arrays

**Chapter 2: Object-oriented programming with Java Classes and Objects**

1. Fields and Methods
2. Constructors
3. Overloading methods
4. Garbage collection
5. Nested classes

**Chapter 3: Inheritance**

1. Overriding methods
2. Polymorphism
3. Making methods and classes final
4. Abstract classes and methods
5. Interfaces

**Chapter 4: Exception handling with try-throw-catch-finally constructs**

1. The Exception class

**Chapter 5: The Object class**

1. Cloning objects
2. The JDK LinkedList class
3. Strings
4. String conversions

**\* Java Spring MVC with spring boot architecture project setup to create rest apis**

**Angular 4 :**

**Module 1: Introduction**

1. What is Angular?
2. Angular (vs) Angular2 (vs) Angular4
3. Setup for local environment
4. What is Typescript?

**Module 2: Directives**

1. Structural directives (Built-in Directives (ngIF, ngFor, ngSwitch)
2. Style and Class Directives ( ngClass, ngStyle)
3. Attribute directives

**Module 3: Data binding**

In this module we will learn how to do data-binding in angular4, and how we can make use of @input and @output decorators.

1. Property binding and Interpolation
2. Event binding
3. Two-way Binding
4. Use of @Input and @Output

**Module 4: Components**

In this module we will learn one of the major concept in angular4 i.e., components. And we can also learn how to create dynamic component using **ngComponentOutlet**.

1. What are components?
2. Understanding Components life cycle hooks
3. Creating and using components
4. Dynamic components using **ngComponentOutlet**

**Module 5: Forms**

In this module we will learn two different types of creating forms in angular4 i.e. template driven and model driven. And we will also learn how to do validations and how to create custom validators.

1. Template Driven Forms
2. Model Driven & Reactive Forms
3. Form with @ViewChild

**Module 6: Pipes**

In this module we will learn what pipes are, and how to pass parameters to pipes, and how to create custom pipes. And we will also learn new concept Async pipes that is introduced in angular4.

1. Why pipes are useful?
2. Parameterizing pipes
3. Custom pipes
4. Pure and Impure pipes
5. Async pipes

**Module 7: Services & Dependency injection**

In this module we will learn what are services and how do they communicate using HTTP protocol to the server.And we will also learn about very interesting topic Dependency Injection in angular.

1. Creating Service
2. Logger Service
3. $http Service
4. Injectors
5. Providers
6. Tokens
7. DI in Angular Framework

**Module 8: Routing**

In this module we will learn the introduction for routing in angular and how to navigate between views, how to do

1. parameterized routing
2. Introduction
3. Configuring & Navigating
4. Parameterized routes

**Unit Testing**

**Interview based training**