

# **Full Stack Development**

#### **FULL STACK DEVELOPMENT 120hrs**

## Front End Development:-

#### HTML(Basic)

- HTML-Overview
- HTML-History
- HTML-Versions
- HTML-Relation with CSS & JS
- HTML-DOM
- HTML-Installation & Setup
- HTML Page Structure
- HTML -Elements
- HTML-Formatting
- HTML-Basic Tags
- HTML-Expressions Tags
- HTML-Style
- HTML-Table
- HTML-List
- HTML-Layouts
- HTML-Links
- HTML-Controls
- HTML-Forms
- HTML-LabelHTML-Menu
- HTML-TextFieled
- HTML-DropDownList
- HTML-CheckBox
- HTML-RadioButton
- HTML-TextArea

#### HTML 5

- HTML vs HTML-5
- HTML-5-Features
- HTML-5-Tags
- HTML-5-Semantic Elements
- HTML-5-Special Tags
- HTML-5-Layout Tags
- HTML-5-Graphics
- HTML-5-Canvas
- HTML-5-Canvas
- HTML-5-Audio Tags and
- HTML-5-Video Tags

#### CSS(Basic)

- CSS-Overview
- CSS-HTML
- CSS-Setup
- CSS-Selectors
- CSS-Style
- Backgrounds
- Margin & Padding
- Floating Elements
- CSS-Image
- CSS-Borders
- CSS-Box model
- CSS-Pseudo classes
- CSS-Absolute
- CSS-Relative
- CSS-Layouts
- CSS-Validations
- CSS-Borders
- CSS-Positioning Elements

#### CSS-3

- CSS-3 Overview
- CSS-vs CSS-3
- CSS 2 and CSS 3
- Advanced effects
- CSS-3-2D and 3D Transformations
- CSS-3-Transitions
- CSS-3-Animations

#### **Bootstrap**

- Bootstrap Overview
- Bootstrap Container
- Bootstrap Button
- Bootstrap Grid
- Bootstrap Table
- Bootstrap Form
- Bootstrap Label
- Bootstrap Panels
- Bootstrap Pagination
- Bootstrap Image
- Bootstrap Glyphicon
- Bootstrap Carousel
- Bootstrap Progress Bar
- Bootstrap List Group
- Bootstrap Dropdown
- Bootstrap Collapse

#### Java Script(Basic)

- JavaScript-Overview
- JavaScript-Setup & Installations
- JavaScript-Data types and
- JavaScript-Data structures
- JavaScript-Control structures
- JavaScript-if, if-else
- JavaScript-Loops
- JavaScript-while
- JavaScript-for
- JavaScript-switch case
- JavaScript-Arrays
- JavaScript-Strings
- JavaScript-Objects
- JavaScript-JSON
- JavaScript-Form Validations
- JavaScript-Regular Expressions

#### JavaScript-Advance

- JavaScript-Class
- JavaScript-Objects
- JavaScript-Inheritance
- JavaScript-Global and local variables
- JavaScript-Exception Handling
- JavaScript-Advance Forms
- Form Elements
- JavaScript-Get & Post
- JavaScript-Form action

#### jQuery

- jQuery-Intrduction
- jQuery-Features
- jQuery-Installation & Setup
- jQuery-Functions
- jQuery-In-Built Functions
- jQuery-DOM
- jQuery-\$() factory function
- jQuery-Selectors
- Query-Effects
- jQuery-fadding Effects
- jQuery-sliding Effects
- jQuery-displayEffects...
- jQuery-Traversing
- jQuery-Form ValidationsAJAX

#### jQuery(Advance)

- jQuery(Advance)
- jQuery-Animations
- jQuery-Interactions
- jQuery-Widgets
- jQuery-Menu
- jQuery-Tab
- jQuery-Slider
- jQuery-AutoComplete
- jQuery-Accordion
- jQuery-Plug-ins
- jQuery-Plug-ins Advance

### **React|S**

- ReactJS Overview
- React|S Installation Setup
- ReactJS DOM And Virtual DOM
- ReactJS JSX
- React|S State
- ReactJS Props
- ReactJS Components
- ReactJS Class Components
- React|S CSS
- ReactJS Integration of Bootstrap
- ReactJS Component Life Cycle
- React|S Forms
- ReactIS Events
- ReactJS Refs
- ReactJS List & Keys
- ReactJS Hooks
- React|S Flux concept
- ReactJS Animations
- ReactJS Examples

#### **Backend Development:-**

### **NodeJS**

- NodeJS Overview
- NodeJS Basics
- NodeJS Models
- NodeJS Node Package Manager
- NodeJS File System
- NodeJS API/Rest API

#### Java:-

### **Core Java-MODULE**

#### Introduction of JAVA

- JAVA -Overview.
- JAVA -History.
- JAVA -JVM -The heart of Java.

#### **Language Fundamentals**

- JAVA Environment.
- Installation & Setup.
- JAVA Compilation & Executions.

#### **Basic Language Fundamentals**

- Identifiers.
- Keywords, Literals, Comments.
- Variable initialization & passing values.
- Primitive Data types & Operators.

#### **Loops & Iteration**

- Needs of the loops.
- Inner Loops Concepts.
- While and do while loops.
- For and nested for loops.

#### **JAVA-Functions**

- Functions.
- Functions Importance.
- Basics Example of the Functions.
- Functions & Its Parameters.

#### **JAVA-Array and String**

- Defining an Array.
- Initializing & Accessing Array.
- 2d & 3d of Array.
- Multi –Dimensional Array.
- Arrays class Methods.

# JAVA-OOPS(Object Oriented Programming Structure)

- Class Fundamentals.
- Object & Object reference.
- Constructor & De Constructor.
- Access Control, Modifiers, and methods.
- Encapsulation & Its Properties.
- Getter and Setter in Encapsulation.
- Need of the Properties.
- Benefits of Inheritance in OOP.
- Types of Inheritance in Java.
- Constructors in inheritance.
- Use of "super".
- Polymorphism Concepts.
- Overloading & Overriding.
- Abstract Class & Interfaces.
- Implementation of interfaces.
- Example of the Object oriented.

#### **Packages**

- What is the Packages in JAVA
- Creating Sub Package in Package.
- Import packages.

#### **JAVA- Exception Handling**

- What is the Exception?
- Handling Exception In JAVA.
- Types of Exception.
- Control Flow in Exceptions.
- Use of try, catch, finally, throw, throws in Exception Handling.
- Multiple try with catch.
- In-built Exceptions.
- User Defined Exceptions.

#### **JAVA-GUI** with Swing

- What is the Applet?
- Use of Applet.
- Applet Examples.
- What is Swing and AWT?
- Advantages of Swing & AWT.
- Swing class components
- Multi-frame model in Swing

#### **JAVA- Collections**

- What is the Collections?
- Types of Collections.
- Needs of the Collections.
- List Interface Types In Collections.
- Set Interface In Collections.
- MAP Interface In Collections.
- Queue Interface In Collections.
- Examples on Collections.

# Advanced Java (j2ee)

#### JDBC

- What is the JDBC?
- JDBC Drivers
- JDBC Driver for MY-SQL
- JDBC Driver for Oracle
- Insert Operation of JDBC
- Select Operation of JDBC
- Update Operation of JDBC
- Delete Operation of JDBC

#### **Client-Server Architecture**

- CGI Concepts
- What is the Servlet?
- Servlet Features
- Servlet Life Cycle
- Setup and Installation of the Servlet with Eclipse
- Servlet API
- Generic Servlet
- Send Redirect Method
- Servlet Config Interface
- Http Servlet
- Servlet Dispatcher
- Servlet Context
- Servlet Filters
- Servlet Cookies
- Servlet Session
- Servlet Events

#### Java Server Pages (JSP)

- What is the JSP?
- JSP Life Cycle
- Setup and Installation of the JSP with Eclipse
- JSP Directives
- JSP Actions
- JSP Client Server Requests
- JSP Session
- JSP Cookie
- JSP Forms

#### JSP-JSTL (Java Server Tag Library)

- What is the JSTL?
- JSTL Core Tags
- JSTL Functional Tags

#### Frameworks in JAVA-WEB MVC Framework

- What is the MVC?
- Use of MVC
- Working Functionality of the Model, View and Controller.

#### **Spring Framework**

- Architecture of the Spring Framework
- Setup and Installation of the Spring with Eclipse
- IOC Containers in Spring
- Bean in Spring
- Spring Life Cycle
- Spring AOP
- Spring JDBC Framework
- Spring Events Handling
- Dependency Injection in Spring
- MVC in Spring

· Auto Wiring in Spring

#### **Hibernate Framework**

- Hibernate Architecture
- What is the Hibernate?
- Why we Used Hibernate?
- Hibernate Mapping
- Hibernate Configuration
- Annotations VS Mappings
- HQL in Hibernate
- · Session Factory In Hibernate

#### **DATABASE**

### **MongoDB**

- MongoDB Overview
- MongoDB History
- MongoDB Document-Oriented Database
- MongoDB No SQL Database
- MongoDB File System
- MongoDB Installation
- MongoDB Operations
- MongoDB Data Modelling
- MongoDB Indexes
- MongoDB Commands
- MongoDB Transactions
- MongoDB Tools
- MongoDB Connectivity
- MongoDB Administration
- MongoDB Security

### **CLOUD:-**

#### **AWS:-**

- What is Cloud Computing?
- Cloud Computing Types
- IIS/PAAS/SAAS
- How Cloud Works?
- Cloud Provider
- AWS Overview
- AWS Regions And Zones
- AWS Resources
- AWS Prices
- AWS Architecture
- AWS EC2
- AWS Instance Types
- AWS IAM
- AWS IAM Users
- AWS IAM Types
- AWS IAM Lifecycle
- AWS IAM Integration
- AWS EBS
- AWS Autoscaling
- AWS S3 Bucket

- AWS VPC
- AWS VPC Endpoints
- AWS RDS
- AWS Dynamo DB

## **DevOps TOOLS:-**

### GitHub:-

- Overview of Git & GitHub
- Installation of Git & GitHub
- Git Version Control
- Create Git Repository
- Git Branches/ Commits
- Push/Pull Branches in GitHub
- Sample Projects

# **Docker/Devops:-**

- Docker Overview
- Docker Container
- Docker Virtual Machines
- Docker Engine
- Docker Architecture
- Docker Client
- Docker Storage
- Docker Networking
- Docker Installation
- Docker Installation Docker in Windows
- Docker Container and Image
- Docker Implementation Example

# **Testing Tools:-**

# Selenium:-

- Selenium Overview
- Selenium Overview of Selenium IDE
- Selenium IDE Installation
- Selenium Commands
- Selenium Webdriver
- Selenium Webdriver Commands
- Selenium Assertions

# JIRA:-

- Jira Overview
- lira Installation
- Jira Model
- Jira Dashboard
- Jira Workflow
- Jira Bug Lifecycle
- Jira Epic

## API:-

# WebAPI / RestAPI:-

- WebAPI Overview
- WebAPI Architecture
- What is RestAPI
- SOAP Vs HTTP
- WebAPI Routing
- RestAPI Concept
- Sample Example of WebAPI Integration

# **EXTRA Curriculum:-**

- HR Round Preparation
- MOCK Test
- Examination
- Interview Preparation
- Resume Preparation