

**Duration:-4-6 month** 



#### VIVEK IT SOLUTION

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## **JS Training Content**

- Explain JavaScript, JavaScript History, Comparison of JavaScript from other script
- **❖** Type of Js library
- JavaScript features
- What is variable, constant and literals (Var, const and let)
- **❖** Basic JS Structure, Output function in JS, Console.log
- First Hello Word Program of JavaScript, Addition Program, Swap Program, etc.
- Data type of JS with examples.
- Operator and Conditional Statements
- (if, if—else, nested, else if, multiple if).
- Loop(for, while, nested for) and Switch Statement, Nested Switch Statement.
- Array (One dimension, Multidimensional), Array Method
- String class, String Method, String search, Numbers, Number Method
- Date time in Js, Date time methods in JS, Type of method in JS
- JavaScript functions, Arrow Function, this keyword
- JS Hoisting, Strict Mode, JS Regular Expression
- OOP's Introduction, Class and Object, Data abstraction, Encapsulation,
- Polymorphism, Constructor, Accessors, Prototypes, Iterables, Sets, Maps, Reference,
- Optional Chaining, Garbage Collection
- ❖ What is DOM and BOM, Html form elements interaction using JS, CSS and Animation
- Function in JS, Event method of JS,JS Window, JS Screen, JS Location, Cookies, JS History, JS
- Dialog(alert, confirm, prompt), form validation.
- ❖ JSON intro, JSON Data type, Parsing of JSON Data, JSON Array

**Exception Handling, JS Debugging** 

#### **JS ES6 Training Content**

- Let and const keyword,
- Default parameters,
- For..of loop
- Template literals, Rest Parameters, Spread Operator,
- String Buffer in JavaScript
- Arrow function, Map objects, set objects
- Promises, sync, Await, Symbol
- Function Closure, Function Apply, Function Invocation
- **❖** Module in ES6, Export and import
- Spread operator
- Map and foreach to display Data

### **React JS Training Content**

#### **Introduction Session**

- ❖ What is MERN
- What is JavaScript, explain features of Java Script
- ❖ What is Mongo DB
- ❖ What is REACT JS
- **❖** WHAT is NODE JS ○
- ❖ What is Express JS
- What is Full stack Web Developer
- Difference between React and Angular

### **REACT Installation and Software Tools**

- What is VS Code, Download and install it
- React JS Step by Step Installation
- ❖ What is CLI
- CLI Based Command to Create React JS Project
- **❖** REACT JS Project Architecture
- **❖** REACT JS Life Cycle
- **REACT JS Configuration files explanation**
- Create First Hello World Component

- ❖ What is JSX
- JSX Operator
- Conditional Statement in JSX
- Loop in JSX
- ❖ How to Write HTML in JSX
- **❖** How to call CSS file in JSX
- Difference between JS and JSX

## **Component in React JS**

- What is Component, Type of Component
- Uncontrolled Component in React JS
- Uncontrolled Functional Component in React JS
- Uncontrolled Class Component in React JS
- Controlled class Component in React JS
- Controlled functional component in React JS
- Functional Component with Arrow Function
- Explain React life cycle methods using Class Component

## **State & Props**

- What is state
- How to declare state in Class Component
- How to declare state in Functional Component

## **Hooks in React JS**

- What is Hooks
- Type of Hooks
- Create Custom Hooks
- How to use use Effect, use Layout Effect
- ❖ What is use State, use Ref, use Callback, use Memo and use Context

# **React List & keys**

### **Routing in React JS**

- What is Routing
- **❖** How to create Routes object
- Create Path for multiple Apps and create Link
- How to pass data using Route Parameters
- **React routing using navigation**

### **HTML Template & Bootstrap Integration in React JS**

- Download or Create HTML Template
- Integrate HTML Template Under React JS Application
- How to Integrate Adminite Template Under React JS
- What is Outlet in React APP
- How to use css in React JS
- How to use Bootstrap in React JS
- Animation and dynamic effect in React Js

#### Form in React JS

- Create Form using Textfield, Radiobutton and Checkbox with All type of Components
- Create Form using Dropdownlist, Listbox using all type of component
- What is Props
- How to pass data from one component to another using Props
- How to pass List and Map type of Object using Props
- Template driven form
- Reactive Form
- Client side form validation in react js

## **How to Use API in React JS**

- What is API, Type of API
- Testing tools of API, Postman & Swagger
- How to create dummy API
- How many ways to consume API
- ❖ What is Fetch, Manage Insert, Update, Delete and Select Operation using Fetch
- **❖** What is AXIOS, Manage CRUD Operation using AXIOS

Create Local JSON file and generate API Urls and Manage GET, POST, PUT, DELETE Operation Difference between Fetch and AXIOS

#### **Redux in React JS**

- ❖ What is Redux
- ❖ Flow of Redux, Explain View, Actions, Triggers, Reducers and Store
- Create Simple Application using Redux
- Advantage of Redux
- **❖** Difference between Flux and Redux

## **NODE JS Training Content**

- Introduction Session
- ❖ What is NODE JS
- Features of NODE JS
- **❖** Node JS Engine & Library
- Code Execution of NODE JS

#### **NODE Installation and Software Tools**

- How to download and Install Node JS
- What is NPM
- Adding dependancy in package. JSON file
- Installing package globally
- **❖** Working in REPL
- ❖ NODE JS Console

# **NODE JS Modules**

- Functions
- Buffer
- Module and Module Type
- Core Modules
- Local Modules
- **❖** Modules. Exports

# **Creating Web Server**

- What is http module
- Handling Http Request
- Sending Request

# File handling concept in Node JS

- ❖ What is fs module
- Reading a file, Writing a file
- **Reading and Writing file Asynchronous mode**
- Deleting a file
- Complete file handling operation

#### **Event in Node JS**

- What is event
- Event Emitter class
- Retouring Event Emitter
- Inheriting Events

# **NODE JS Database Connectivity**

- Connect NODE JS from Mongo DB
- Perform CRUD Operation using Mongodb database
- **❖** Perform CRUD Operation using MYSQL Database

# **NODE JS File Uploading Concept**

**❖** How to upload file under NODE JS Server

# **Express JS Training Content**

# **Introduction Session**

- What is Express JS
- ❖ Features of EXPRESS JS
- How to Install Express JS in Machine
- Code Execution of Express JS

### **Express JS with NODE JS**

- Configure Routes
- How to create API using Node Js
- What is body parser
- **❖** What is CORS and how to embed it
- Create API using GET, POST, PUT, Delete and Patch Method
- How to use Security in API

## **Mongo DB Training Course**

- Introduction Session
- What is Mongo DB
- Features of Mongo DB
- How to Install Mongo DB Machine
- **❖** JSON Structure and Introduction

## **Mongo DB CRUD Operation**

- What is Documents and Collection
- Create Database, Create Collection
- Show database
- Insert, Update, Delete and Select Record
- Mongo db Query Operators
- **❖** Find Record from database based on condition

## Integration using Mongo, Express, React and Node:-

## **Integration Step**

- Create Form using React JS for Registration and Login
- Create API in NODE JS using Express and store data under Mongo
- Call API using React JS Application