REACT JS

MODULE 1: INTRODUCTION OF JAVASCRIPT ES 5 AND Es6

- Basic Javascript
- Object Based Javascript
- Introduction to Es6
- JavaScript Helpers (forEach, filter, map, filter, every, some)
- String Literals
- DE structuring
- Rest parameters & spread operator
- Arrow function
- Default parameter
- Class: Inheritance, constructor, Promise

MODULE 2: INTRODUCTION TO REACTJS

- What React JS?
- Why use React JS?
- What is Single Page Application?
- Why SPA?
- React JS Version

REACT DOM

REACT VIRTUAL DOM

SET UP REACT JS ENVIRONMENT

- What is CLI: create-react-app project name
- Advantage using CLI
- How to debug React JS application.
- Installation CLI
- Install Node JS & React JS
- Create a hello world example
- Create React JS Project
- Understanding of Folder Structure
- How to debug React JS application
- Introduction of Babel

MODULE 3: BASIC FEATURES OF REACTJS AND COMPONENTS

- React Concepts, JSX
- Render Elements
- Types of Components, Class Components
- Life Cycle Method of Class components
- Functional Components
- HOOKS in detail
- Use of HOOK
- What is state
- React Forms
- Components and Props
- State and Lifecycle Handling Events
- Practice on above topics

MODULE 4: ROUTING WITH REACT ROUTER

- Setting Up React router
- Install/Uninstall React router
- React Router Version 5 & 6
- Setting up react router
- Understand routing in single page applications
- Working with Browser Router components
- Configuring route with Route component
- Making routes dynamic using Route params
- Working with nested routes
- Navigating to pages using Link and Nav Link
  Component
- Redirect routes using Redirect Component

MODULE 5: KEY FEATURES OF REACTJS

- Conditional Rendering
- Lists and Keys
- Forms

MODULE 6: EVENT HANDLING IN REACT
- Understanding React event system
- Passing arguments to event handlers

MODULE 7: WORKING WITH FORMS
- Controlled components
- Understand the significance to default Value
- Prop
- Using react ref prop to get access to DOM element

MODULE 7: INTRODUCTION TO REDUX
- What is React Redux
- Why React Redux
- Redux Install and setup
- Actions
- Reducers
- Store
- High Order Component
- Understanding map State To Props & map Dspatch To Props Usage

MODULE 8: REDUX ADVANCED
- Async Actions
- Middleware
- What is redux saga
- Install and set up redux saga
- Working with Saga helpers (Crud Operation)
- Sagas vs Promises

MODULE 9: REACT WITH DESIGN FRAMEWORK
- Material UI for design
- Formik Validation

MODULE 10: REACT API'S

- Introduction https Request
- The path Module
- Building a Web server
- HTTP Request Methods, Headers
- Response Codes and Headers
- Introduction Axios NPM
- Introduction Slider NPM
- Integration of any NPM modules
- Introduction of Google Map NPM

NODE JS

MODULE 1: INTRODUCTION TO NODE.JS

- Introduction to Node.js
- History of Node.js
- Introduction to io.js
- What is Node.js Foundation
- V8 Java Script Engine
- Why Server Side Java Script?

MODULE 2: GETTING STARTED WITH NODE.JS

- Node.js Architecture
- JavaScript Event Loop
- Node.js vs. others Server-Side Frameworks
- Node.js Application Area
- Advantages of Node.js
- Limitations of Node.js

MODULE 3: JAVASCRIPT WITH NODE.JS

- Writing Asynchronous Code
- Blocking vs. Non-Blocking Code

MODULE 4: MODULES

- Understanding Modules
- Built-In Modules
- Creating Module
- Exporting Module
- Importing Modules Node.js CLI and NPM
- Understanding CLI
- Node's Package Manager: NPM
- Local Packages and Global Packages
- Installing, Updating and Removing Module
   using NPM
- Understanding package.json file

MODULE 5: NODE.JS PACKAGE AND

PUBLISHING

- Creating a Node Package
- Publishing Package
- Using published package

MODULE 6: PACKAGES

- Introduction Of NPM Package
- Express NPM Package
- Multer NPM Package
- Node Mail NPM Package
- Boot Stripe NPM Package integration
- JSONWEBTOKEN NPM Integration
- Introduction of crypto-JS

MODULE 7: CODE DEBUGGING

- Built-In Debugger
- IDE Debuggers
- Node Inspector

MODULE 8: EXCEPTIONS HANDLING

- Try. Catch
- Call back
- Event Emitters

MODULE 9: EVENTS

- Understanding Events
- Event Emitter class
- Emitting Event
- Listening Event

MODULE 10: STREAMS

- Creating streams
- Streams types
- Readable Stream
- Writable Stream
- Stream Pipe
- Creating Buffer
- Buffer decoding

MODULE 11: FILE SYSTEM AND PATH MODULE
- Introduction to fs Module
- The fs modules operations
- Manipulating Files Create, Open, Read, Write,
   Close, Rename, Delete
- Manipulating Directives Create, Read, Remove

MODULE 12: EXPRESS FRAMEWORK
- Understanding Express
- Installing Express
- Creating Express App
- Express App
- Running Express App

MODULE 13: ROUTING AND VIEW ENGINES
- Router Object & Router Object Methods
- View Engine-Handlebars
- Response Methods

MODULE 14: MIDDLEWARE AND REQUEST PROCESSING
- Middleware & Express Middleware
- Express Request Processing

MONGODB

MODULE 1:

· Understanding NoSQL DB
- NoSQL vs. SQL DB
- Understanding Mongo DB
- Introduction of mongoose Atlas
- MongoDB Data types
- MongoDB Shell Commands
- Understanding db, collection & document
- Understanding Embedded documents
- Querying database Tools & API
- MongoDB Tools
- Introduction to Mongo Chef
- Mongo Chef for database operations

MODULE 2: INDEXING AND RELATIONSHIPS

- Types of Indexes
- Creating an Indexes
- Dropping an Indexes
- Defining Relationships between Documents

MODULE 3: MONGO DB ODM -MONGOOSE AND POSTMAN

- Introduction to Mongoose
- Exploring fundamentals of Mongoose
- Mongoose Models
- Mongoose Data Types
- Mongoose Relationships
- Mongoose CRUD operations

MODULE 4: GITHUB

- Real-time environmental setup with GitHub

REST API WITH MONGOOSE, MONGODB AND POSTMAN

CREATING REST API USING EXPRESS AND MONGOOSE

IMPLEMENTING THE PROJECT DEPLOYMENT OF MEAN APPLICATION