

## **MERN STACK**

### **Duration – 4 Months**

#### **Introduction to NODEJS Application**

- Introduction to NODE.JS
- Asynchronous JavaScript Concept
- The importance of being asynchronous
- Introduction to setting up a Node.js Environment
- Run your first NODE.JS Application
- The Node.js process
- Working in REPL
- Node JS Console

#### **File System & File Streaming**

- Working with built-in module
- Concept of File System Module
- Reading Directories
- Reading Files
- Working with Streams
- Readable stream & Writable stream

#### **Building servers**

- Creating servers with HTTP
- Receiving data
- Handling GET, POST, PUT and DELETE requests
- Sending requests

#### **Introduction to ExpressJS**

- Introduction to using the Express framework to set up a web server
- Routes, rendering, layouts, url building, express servers
- Configuration
- Views
- Middlewares

## **Installation of Mongo Database**

- Store data with Mongoose and MongoDB
- Mongo Db connection with ExpressJs framework
- Sample CRUD(Create,Read,Update,Delete) operation in express

## **Introduction to ReactJS**

- Introduction
- Downloading and Installing ReactJS
- Understanding virtual DOM

## **Components in ReactJS**

- Rendering data in ReactJS
- Applying css class and html content in ReactJS
- Component lifecycle and state
- Understanding state in React
- Creating multiple components in ReactJs
- Creating reusable components.

## **Properties and Events**

- Working with properties
- Accessing Child properties
- Understanding events in ReactJS
- Exploring static methods

## **Forms Components**

- Working with Forms in ReactJS

## **Tooling Support**

- Converting JSX to JS
- Using Gulp To compile and concatenate JSX files - I
- Using Gulp To compile and concatenate JSX files (Using Browserify) – II
- Component Communication

### **Major AddOns in React**

- Two Way Data Binding
- Clone Elements - [cloneWithProps Deprecated - Use
- React.cloneElement instead
- Using React.cloneElement
- Making use of classSet to apply Conditional Styles
- Making use of classNames to apply conditional styling
- Animation using CSSTransition Group

### **Introduction to React Router**

- Working with React Router
- Working with Links & Creating Nested Routes
- Refactoring Routes and Components

### **React and Remote Data**

- Introducing Fetch
- Rendering Remote Data in Components

### **Project Work**