# **MERN Stack with Social Authentication**

### 1. JavaScript: Intro to ES6

- What's new in ES6
- Variable Declarations with LET and CONST
- Strings in ES6
- Arrow Functions: Basics
- Arrow Functions: Lexical 'this' Keyword
- DE structuring
- Arrays in ES6
- The Spread Operator
- Rest Parameters
- Default Parameters
- Classes

#### 2. Welcome to React

- Obstacles and Roadblocks
- React's Future
- Working with Files
  - o React Developer Tools
  - Installation Node JS

### 3. Pure React

- Page Setup
- The Virtual DOM
- React Elements
- React DOM
- Children
- Constructing Elements with Data
- React Components
- DOM rendering

#### 4. React with JSX

- React Elements as JSX
- Babel
- Intro to Webpack

## 5. Props, State and the Component Tree

Property Validation

- Refs
- React State Management
- State within component Tree

## 6. Enhancing Components

- Component Lifecycle
- JavaScript Library Integration
- Higher-Order Components
- Flux

### 7. Redux

- State
- Actions
- Reducers
- The Store
- Action creators
- Middleware

### 8. React Redux

- Explicitly Passing the Store
- Passing Store via Context
- Presentation Versus Container Components
- The React Redux Provider
- React Redux Connect

#### 9. React Router

- Incorporating the Router
- Nesting Routes
- Route Parameters

## 10. Understanding Node environment

- Extending JavaScript
- V8
- The Process Object

# 11. Understanding Asynchronous Event Driven Programming

- Broadcasting Events
- Listening for Events
- Timers

- Understanding the Event Loop
- Callbacks and errors

### 12. Access the File System

- Directories & iterating overs files and folders
- Reading from File
- Writing to a File

### 13. Introduction to Express

- What is use of Express Framework?
- Install Node and necessary dependencies

#### 14. Getting Started with Express

- Express: The Basics
- Basic Routing
- Serving Static Files

### 15. Middleware and Rendering

- Express Middleware
- Responding with JSON
- Express with View Engine
- API/ Server-Side rendering

### 16. Request & Response

- Request Object Forms and Cookies
- Query String
- Data Params
- Headers
- Router

### 17. Project: Building API

- Project Overview and Setup
- Routes and Middleware
- Socket.iO

#### 18. Databases

- Relational Database and SQL
- Node & MYSQL
- NoSQL and Documents
- MongoDB and Mongoose

- CRUD operation using MongoDB
- Working with MySQL
- CRUD Operation using MYSQL

# 19. Authentication

- Authentication with Third Party API
- Authentication with JWT

# 20. Testing