





### • HTML

- HTML Basics
- HTML Elements
- o HTML Attributes
- Formatting and Style
- o Links
- List
- o Tables
- o Div
- o Form

# CSS

- CSS Basics
- Inline CSS, Internal CSS and External CSS
- o Selectors
- Working with styles
- o Form Design

# Java Script (ES6)

- Java Script Basics
- Internal JS and External JS
- o Variable
- o Let, const
- o Object
- String
- Array
- o Conditional Statement
- o Looping Statement
- o JSON
- Arrow Function
- Spread Operator
- Debugging

# Bootstrap

# React Introduction

- o What is React
- o Advantages of React
- Setting up React Development Environment

Create and Run React Application

# Components, JSX

- Understanding React components
- JSX

### Lists and keys

- Rendering Lists
- Using .map() to render lists of elements
- o Providing a key for each item

# Functional vs class components, Props

# • State, Lifecycle methods

- State in React components
- Updating state
- Component lifecycle methods

#### Hooks

- useState()
- useEffect()
- useContext()
- useMemo()
- useContext()

etc.

# Event handling

- Event handling in React
- Arrow functions vs. regular functions

## • Working with Forms

- Controlled components
- Handling form submission
- o Form validation

# Conditional rendering

- Conditional rendering with if statements
- Ternary operators and logical && in JSX

## Styling in React

- CSS in React
- Different approaches for styling (CSS, CSS-in-JS, CSS Modules)
- o Inline styles
- Styling Libraries
- Popular CSS frameworks (e.g., Bootstrap, Material-UI)

#### React Router

- o Introduction to React Router
- Setting up React Router
- Creating routes
- Navigating with React Router
- Using Link and NavLink
- Nested Routes and Dynamic Routing
- Nested routes
- Passing parameters to routes

## • State Management

- Introduction to Redux
- Understanding the need for state management
- o Basic concepts: actions, reducers, store
- Setting Up Redux
- o Installing Redux and setting up a store
- Creating actions and reducers
- Connecting React with Redux
- Using connect to connect components to the store
- Dispatching actions

# MySQL

- Basics of MySQL
- o DDL Commands
  - Create, Alter, Drop, Rename, Truncate
- DML Commands
  - INSERT
  - UDATE
  - DELETE
- o Retrieve Data from Table

# • Express JS

- Create Rest API using Express JS
- Working with different HTTP Methods
  - GET
  - POST
  - PUT
  - DELETE

# • API Integration

- AJAX and Fetch API
- Making HTTP requests in React
- Fetching data from an API
- Async/Await and Promises

# Deployment

- o AWS EC2
- o NGINX
- o AWS S3
- o AWS RDS