

# React Certification Training



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## About the Course

The React certification training is primarily designed for UI Developer(s)/Web Developer(s) who want to learn how to develop high-performance, event-driven, real-time, and scalable applications.

In this training, you will learn JavaScript, ES6, React, React Router, Formik, Yup, and Redux. Here you will learn objects, classes, functions, components, routing, State and Lifecycle, JSX, Forms, data flow, actions, and much more.

## Course objective

At the completion of this course, attendees will be able to;

- Describe JavaScript and ES6 concepts like objects, classes, and arrow functions.
- Explore React basic and advanced in-depth concepts.
- Create components, Hooks and routes, etc.
- Explore Redux's basic and advanced in-depth concepts
- Consume REST API.
- Create and validate Forms using Formik and Yup.
- Secure application based on user roles.
- Scale SPA for Phones, Tablets, laptops & desktops using Bootstrap.
- Build end-to-end SPA using React Hooks and Functional components.
- Publish React App to IIS or cloud.

## Who can do this course?

All professionals who are keen to develop high-performance web applications should go for this course.

## Pre-requisites

Anyone who wants to learn to React with Redux should have a basic knowledge of programming.

## Software/Tools

Visual Studio Code, Node.js, React CLI

# Course Curriculum

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## Module 1

### JavaScript and ES6

- Understanding JavaScript
- Understanding ES6
- JavaScript Data Types – Primitive & Non-Primitive
- Naming a variable
- Number Mathematics

### var, let and const

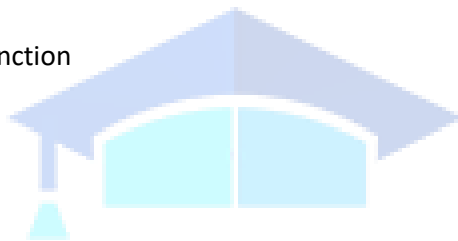
- Using var
- Using let
- Using const

### Functions and Arrow Function

- Different types of Functions
- Named Function
- Anonymous Function
- Arrow Function
- Anonymous Function vs. Arrow Function

### Objects and Constructor Function

- Creating Object
- Literal Object
- Primitive types as Objects
- Constructor Function



### Class and Methods

- ES6 Class
- Class Members
- Templated String

## Module 2

### Introduction to React

- Introduction to React
- Why React?
- Advantages of React
- React Development Style

### Setting Up Environment

- Installing Node.js
- Installing Visual Studio and Visual Studio Code
- Useful VS Extensions for React Development
- Useful VS Code Extensions for Angular Development

## Get Started with React

- Setting up the React App
- Running the React App
- React Initialization Process
- React Virtual DOM
- React Ecosystem
- React versus other frameworks

## JSX

- Introduction to JSX
- JSX for components
- Attributes
- Expressions
- React without JSX

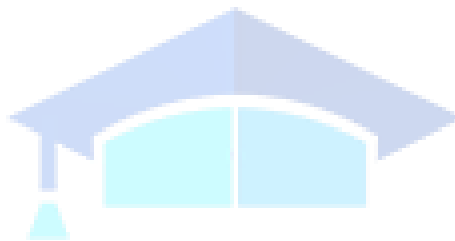
## Module 3

### React Components

- Render Elements
- Understanding Component
- Creating a Component
- Types of Components
- Functional Components
- Class Components

### Advanced React Components

- Component Lifecycle
- Virtual DOM
- Composition
- Communication between Components
- Reusable Components



## Module 4

### Data Flow

- Introduction to One Way Data Flow in React
- Props and State
- Passing Data to Child Component
- Handling State of Component

### Event and Actions

- Events in React
- Data Binding
- Events and Actions
- Handling Events
- Communication Among Components

## React Hooks

- Introduction to Hooks
- Need of Hooks
- React Built-in Hooks: useState, useEffect etc.
- Hooks in Action

## **Module 5**

### Routing using React Router

- Understanding Routing
- Introduction to React Router
- Defining Routes
- Routes Handling

### React Router with Hooks

- React Router Hooks
- Handling Route Parameters
- Nested Routes

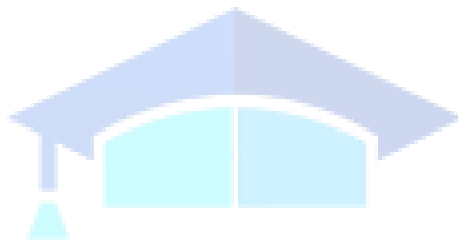
## **Module 6**

### React Forms and Controls

- Introduction to React Forms
- Creating Forms
- Forms Validations

### Formik and Yup

- Introduction to Formik
- Creating Controls
- Validation Using Yup



## **Module 7**

### Unit Testing

- Introduction to Unit Testing
- React Unit Testing setup
- React Unit Testing frameworks
- Unit Testing with TestUtils

### Testing React Components

- Testing Components
- Testing DOM Manipulations
- Testing Properties and State
- Simulating Events

## **Module 8 (Project)**

### Discussing Project Architecture

- Understanding Application Architecture
- Discussing Application Entities Properties
- Discussing Relationship among Application Entities

### Developing Application Architecture

- Creating Server building blocks
- Creating Client-Side building blocks

### Designing DB and REST Service

- Designing Database
- Developing REST API

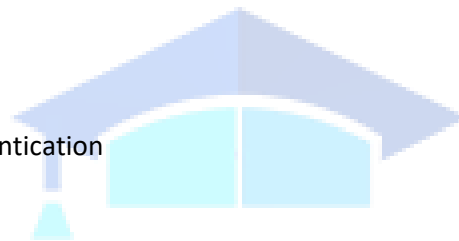
### Developing Frontend using React

- Defining Modules – User, Admin
- Defining Routing
- Developing User Login and Signup Page
- Developing User and Admin Dashboard

## **Module 9 (Project)**

### Security

- Implementing Token-based Authentication
- Managing User session
- Implementing Authorization



### Route Protection

- Protecting a Route from Unauthorized Access
- Need of Route Protection

### Category and Product Listing

- Category CRUD Operations
- Product CRUD Operations

## **Module 10 (Project)**

### Shopping Cart

- Creating Shopping Cart
- Adding Products to Shopping Cart
- Removing Products from Shopping Cart

### Deployment

- React Hosting Options
- Hosting React App.

# Build React Real-World Projects

Apply your coding skills to solve real-world problems. You'll learn how to start a project from scratch by following recommended architecture, practices and deploy to the server.



## Build Food Delivery Website (Like Swiggy, Dominoz)

Learn to build an online food delivery website like Swiggy, Zomato, Dominoz etc.



## Build Music Website (Like Gana.com, JioSaavn)

Learn to build a music website like Gana.com, JioSaavn etc.



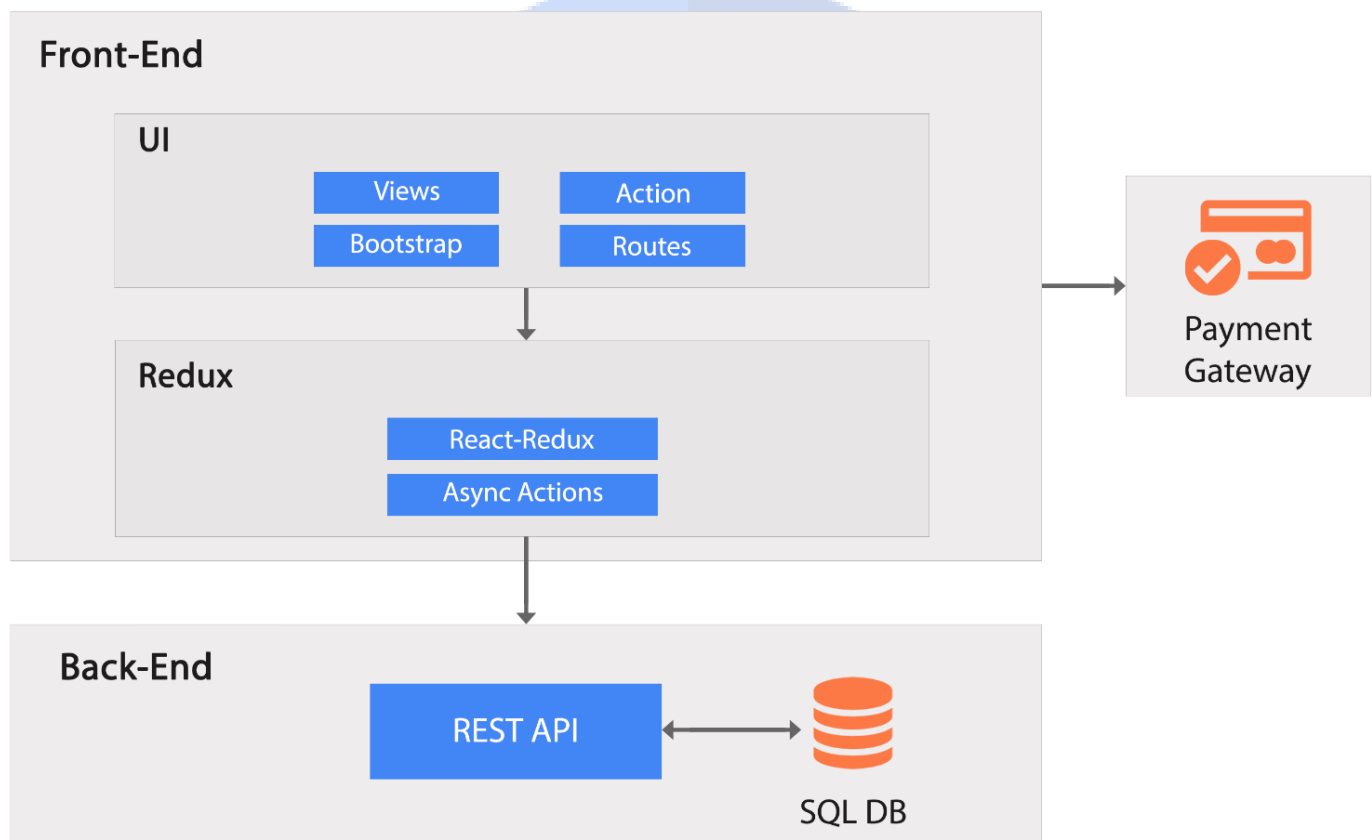
## Build Online Shopping Website (Like Flipkart, Pepperfry)

Learn to build an online shopping website like Flipkart, Pepperfry, Amazon etc.

## Project Architecture

The primary purpose of application architecture is to support the development life cycle of the system. Good architecture makes the system easy to understand, easy to develop, easy to maintain, and easy to deploy. The ultimate benefit of the architecture is to minimize the lifetime cost of the system and to maximize programmer productivity.

The goal of the given architecture is to learn and implement important principles and design patterns to build various domains applications like eCommerce, edTech, Food Delivery or other Service based industries applications.



## What will you learn through the project?

- Build an OTT platform using Hooks and Functional components.
- Creating Movies Listing Page.
- Movies CRUD operations.
- Creating a shopping cart using React.
- Integrating payment gateway.
- Validating data at the client-side and server-side.
- Using Node's Package Manager – NPM.
- Validate Forms using Formik and Yup.
- Scaling web apps for Phones, Tablets, and laptops & desktops.
- Securing your application based on user roles.
- Publishing your app on the cloud server.

## Contact Us

- For more information about the course, visit: [www.scholarhat.com/training/react-certification-training](http://www.scholarhat.com/training/react-certification-training)
- Feel free to call us at **+91 9999 123 502** or email us at [hello@scholarhat.com](mailto:hello@scholarhat.com)

