

# REACT JS

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## Course Outline

### **Introduction to React JS**

- Understand JavaScript MVC
- Understand the View Technology
- Overview of React JS
- Configuration
- Java script MVC
- View Technology
- Introduction to React JS
- React and SPA
- Basic Setup
- First Example – Hello World

### **React Basics**

- React Concepts
- JSX
- Render Elements
- Components and Props
- State and Lifecycle
- Handling Events

### **React Key Features**

- Conditional Rendering
- Lists and Keys
- Forms
- Lifting State Up
- Composition vs Inheritance
- Thinking In React

## **Redux Introduction**

- Introduction
- Motivation
- Core Concepts
- Three Principles
- Legacy of Redux
- Redux Setup
- First example

## **Redux Basics**

- Action
- Action Creators
- State Shape
- Handling Actions
- Handling more actions
- Splitting Reducers
- Store
- Dispatch Actions

## **Data Flow and Usage with React**

- Data Flow
- Install React Redux
- Presentational and Container Components
- Design Component Hierarchy
- Implementing Components
- Passing the store

## **Async Actions and Async Flow in Redux**

- Synchronous Action Creators
- Design State Shape
- Handle Actions
- Async Action Creators
- Async Flow

## **Middleware and React Router**

- Middleware
- Middleware Applicability
- React Router Overview
- React Router Configuration
- React Router with Redux
- Navigate with React Router

## **Advanced features of Redux**

- Object Select Operator Overview
- Object Select Operator Applicability
- Redux on Server
- Configuration – Server Rendering
- Server side – Server Rendering
- Client side – Server Rendering

## **Testing Redux**

- Overview of Jest
- Setup testing environment
- Test Action Creators
- Test Async Action Creators
- Test Reducers
- Test Components
- Test Connected Components
- Test Middleware
- Other Testing options

## **Project :**

Create a Simple Shopping Cart application using Redux and React. The application should contain:

- Product Configuration as per the below details:

[

{"id": 1, "title": "TV", "price": 11500.01, "inventory": 5},

```
{ "id": 2, "title": "Fridge", "price": 11110.99, "inventory": 20 },  
{ "id": 3, "title": "Mobile", "price": 1119.99, "inventory": 5 } ]
```

- Option to Display Products with Price
- Option to Add Items to the Cart
- Option to Perform a Checkout
- Option to stop adding items to Cart when inventory is empty
- Test Cases for components and reducers

## **CONCLUSION**

### **Additional Benefits**

- Course Material(Soft Copy)
- Interview Questions