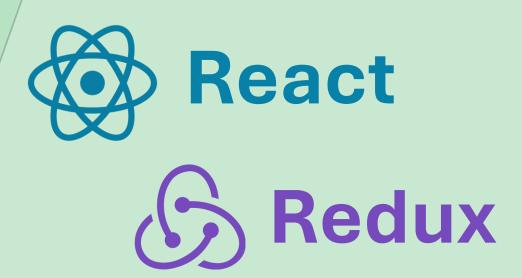


# React & Redux

Create Industry **Standard Projects** 

भुता थिक जव विि कार्र



**Total Class: 30** 

**Class Duration: 2-3 Hours** 

Total: 70-90 Hours

3 Lectures / week

Friday, Sunday, Tuesday

Project: 7+

**Assignment: 5** 

Vanilla JS – DOM Manipulation

**Total Class: 02** 

**Total Hours: 06** 

## Day - 01

#### **Introduction to DOM**

Exploring basics of vanilla JavaScript to make application from scratch.

## Day - 02

## **Project: 1**

A CRUD application of contact saving. Understanding the process of development.

**Kick Start With ReactJS** 

**Total Class: 03** 

**Total Hours: 09** 

#### Day - 03

#### **React Overview**

- How React works?
- Virtual DOM & Reconciliation
- Explore JSX & Logic in JSX
- Component & Reusability of component
- Props

## **Day - 04**

#### **Build UI Interface**

- Explore React Component Tree
- Holy Grid Layout
  - Component Breakdown
- Prop Drilling in React
- Apply Modular CSS
- Assignment 1: Design a website layout

## **Day - 05**

## Project - 2

- Create a Portfolio website
- Integrate TailwindCSS in React
- Deploy project on Netlify

**Explore States & Events** 

## **Total Class: 03**

**Total Hours: 09** 

#### Day - 06

#### **Understand State & Events**

- States in React
- useState Hook
- Event handling in React
- Two-way data binding
- Rendering List
- State lifting in React
- Project 3:
  - Color Manager Application

## Day - 07

### **Project Expansion**

- Add category section for product
- Understanding data format for the new requirement
- Explore React-Select Library
- Assignment 2:
  - Design pricing page for subscription

## **Day - 08**

### **React Life Cycle**

- useEffect Hook
- Component Life Cycle
- Project 4:

Ecommerce **item-counter** feature

Assignment 3:

Write article /Note on useState & useEffect hook

**Advance Concepts** 

## **Total Class: 12**

**Total Hours: 36** 

## Day - 09

## **Multipage Routing**

- What is SPA?
- React Router DOM
- Route Protection

## Day - 10

## **Mastering Recursion**

- What is Recursion?
- How Recursion works?
- When should we use Recursion?
- Solve Recursive Problems
- Project 5:

Dynamic Nested Menu (N-Levels)

**Advance Concepts** 

**Total Class: 12** 

**Total Hours: 36** 

## **Day - 11**

## Form handling

- Access DOM useRef Hook
- Explore React-Hook-Form Library
- Form Validation & Error Handling
- Dynamic Form Building

## **Day - 12**

#### **Data Grid**

- Understanding CMS (Content Management System)
- Create Data-Grid using React-Table Library
- Image preview& Upload to Cloudinary

## Day - 13

#### Data Grid – Part 2

Implement Searching, Sorting, Filtering & Pagination in data grid.

## **Advance Concepts**

## **Day – 14**

#### **REDUX in Action**

- Understanding Redux workflow
- Create a simple Redux store & update UI
- Dispatching function & Subscribing state
- Assignment 4:
  Write article on Redux

## **Day - (15** to **18)**

## **Project 6**

#### Blog App – Create website + CMS

- Article & Comment System
- Article CRUD Operation
- Searching, Sorting, Filtering & Pagination feature in CMS
- Add category section for articles
- Exploring a Rich-Text-editor (draft.js)
- Validation & Error handling
- Toast messages

#### Libraries:

React, Redux, React-Table, React-Hook-Form, React-Router, Draft.js, TailwindCSS

## Day - 19

Higher Order Component

**Total Class: 12** 

**Total Hours: 36** 

- Render Props
- Error Boundaries
- Lazy Loading
- UseReducer Hook
  - Manage Complex State

**Advance Concepts** 

## **Total Class: 12**

**Total Hours: 36** 

## Day - 20

#### **More Hooks & Portal**

- Custom Hook
- useCallback Hook
- useMemo Hook
- React Portal

## Day - 21

- Context API in Action
- Exploring React-Query Library
- Data Caching in Frontend
- API Calling to Server

**Advance Concepts** 

**Total Class: 12** 

**Total Hours: 36** 

## Day - 22

#### Docker

- What is Container
- Environment Setup
- Dockerize React App
- Port binding
- Assignment 5:
  Write Article on Docker

## Day - 23

# **RTK Query**

## **Final Project**



# E-Commerce (Website + CMS)

**Day: 24** to **30** 

**Total Class: 07** 

**Total Hours: 21** 

#### **Core Features**

- User Registration & Login
- Product CMS
- User can give Rating on product
- Category Based Product
- Searching, Sorting & Filtering in website
- Order Management CMS
- Add to cart system

#### **Libraries:**

React, RTK Query, React-Table, React-Router, Draft.js, TailwindCSS, React-Hook-Form

Note: Backend code will be given

