

React Mastery in 30 Days

Week 1: React Basics

Day 1: Introduction to React

- What is React? Why use it?
- Setting up a project with **Vite & CRA**

Day 2: JSX & Components

- Understanding JSX
- Functional vs. Class Components

Day 3: Props & Component Reusability

- Passing props between components
- Default & destructured props

Day 4: State Management with **useState**

- Using **useState** for local state
- Updating and rendering state changes

Day 5: Handling Events in React

- Understanding event handlers (`onClick`, `onChange`, `onSubmit`)
- Handling events with parameters

Day 6: Controlled & Uncontrolled Components

- Managing form inputs
- Using `useRef` for uncontrolled components

Day 7: Mini Project - Simple Counter App

- Build a **counter app** using `useState`

Week 2: React Hooks & Lifecycle

Day 8: Introduction to `useEffect`

- Using `useEffect` for side effects
- Fetching data from an API

Day 9: Cleanup Functions in `useEffect`

- Understanding dependency arrays
- Implementing cleanup functions

Day 10: React Rendering & Performance

- Understanding re-renders
- Basics of React memoization

Day 11: Custom Hooks

- Why create custom hooks?
- Building a reusable custom hook

Day 12: Context API for Global State

- Creating and using Context
- Consuming Context with `useContext`

Day 13: Basic React Router Setup

- Installing `react-router-dom`

- Setting up routes and navigation

Day 14: Mini Project - Simple Notes App

- Build a **notes app** with local storage
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Week 3: Advanced Concepts & UI Libraries

Day 15: Forms & Validation

- Handling complex forms
- Validating inputs with **yup** & **react-hook-form**

Day 16: React Router Advanced

- Dynamic routes & route parameters
- Implementing nested and protected routes

Day 17: Redux Toolkit Basics

- What is Redux? Why use it?

- Creating slices and reducers

Day 18: Managing State with Redux Toolkit

- Using actions, selectors, and dispatch

Day 19: Tailwind CSS in React

- Installing and configuring Tailwind CSS
- Creating reusable UI components

Day 20: Material UI & ShadCN

- Using pre-built UI components
- Customizing styles effectively

Day 21: Mini Project - Weather App

- Build a **weather app** that fetches API data

Week 4: Performance & Animation

Day 22: Optimizing Performance

- Using `useMemo` & `useCallback`
- Implementing lazy loading & code splitting

Day 23: Framer Motion for Animations

- Basic animations in React
- Page transitions and hover effects

Day 24: Server-Side Rendering (SSR) with Next.js

- Introduction to Next.js
- Pre-rendering with `getServerSideProps`

Day 25: Introduction to Firebase

- Setting up Firebase for a React project
- Firestore database basics

Day 26: Authentication in React

- Implementing login and signup with Firebase

- Managing user sessions

Day 27: Progressive Web Apps (PWA)

- Converting a React app into a PWA
- Implementing caching & offline support

Day 28: Unit Testing in React

- Writing tests with **Jest & React Testing Library**

Day 29: Deploying React Apps

- Deploying to **Vercel, Netlify, & GitHub Pages**

Day 30: Final Project - Full-Stack Dashboard App

- Build a **complete full-stack app** using **Next.js, Firebase & Tailwind**

This **30-day roadmap** ensures a structured learning experience, helping you master **React** step by step with hands-on projects! 🚀