

# ■ React 20-Day Roadmap (Beginner → Advanced)

## Week 1 – React Basics (Days 1–5)

- Day 1: Prerequisites Refresh – ES6+ JS Recap, Arrays, Destructuring, DOM basics
- Day 2: Intro to React – What is React, Setup (Vite/CRA), JSX, Components
- Day 3: Props & Children – Passing props, children, reusable components
- Day 4: State & Events – useState, Event handling, Two-way binding, Conditional rendering
- Day 5: Lists & Keys – Rendering with .map(), Keys, Mini project: Todo List

## Week 2 – Core React (Days 6–10)

- Day 6: Component Communication – Lifting state, functions as props, controlled inputs
- Day 7: useEffect Hook – Side effects, Fetch API, Cleanup, Mini project: Weather App
- Day 8: React Router – Setup, Routes, Link, useParams, Nested routes, 404 handling
- Day 9: Context API – Provider, useContext, Avoid prop drilling
- Day 10: useReducer & Custom Hooks – useReducer vs useState, Custom hook (useFetch), Blog App

## Week 3 – Intermediate to Advanced (Days 11–15)

- Day 11: Forms – Controlled inputs, Validation, React Hook Form/Formik
- Day 12: Refs & Memoization – useRef, useMemo, useCallback, React.memo
- Day 13: Advanced Patterns – HOC, Render Props, Compound Components
- Day 14: Error Boundaries & Portals – Error handling, Portals, Suspense intro
- Day 15: Mini Project – Ecommerce Cart App (Products, Cart state, useReducer/Context)

## Week 4 – Ecosystem & Deployment (Days 16–20)

- Day 16: Styling – CSS Modules, Styled Components, Tailwind CSS
- Day 17: State Management – Redux Toolkit, Store, Slice, Async Thunks
- Day 18: Data Fetching – Fetch vs Axios, React Query, Caching
- Day 19: Testing – Jest + RTL, Snapshot testing, Component test
- Day 20: Final Project & Deployment – Dashboard App, Deploy on Vercel/Netlify