# React.js Learning Roadmap (3–4 Weeks)

This table of contents is structured as a **daily 15–20 minute learning plan**. We’ll move step by step, covering fundamentals first, then advancing gradually without skipping. Each day you’ll learn a concept and practice a small task.

## Week 1: React Basics

1. **Day 1: Intro to Components** – What components are, create your own component.
2. **Day 2: JSX Basics** – Embedding variables, expressions, styling.
3. **Day 3: Props** – Passing data into components.
4. **Day 4: Default Props & PropTypes** – Setting defaults and type checking.
5. **Day 5: State (useState Hook)** – Managing dynamic data.
6. **Day 6: Event Handling** – onClick, onChange, handling user input.
7. **Day 7: Mini Project** – Simple Counter App (using props, state, events).

## Week 2: Intermediate Concepts

1. **Day 8: Conditional Rendering** – Show/hide elements, if/else in JSX.
2. **Day 9: Lists & Keys** – Rendering arrays with map().
3. **Day 10: Forms & Controlled Components** – Inputs, text fields, form handling.
4. **Day 11: useEffect Hook** – Side effects, API calls basics.
5. **Day 12: Fetching Data with Axios** – Display data from a backend API.
6. **Day 13: CSS in React** – Inline styles, CSS modules, styled-components.
7. **Day 14: Mini Project** – Todo List App (add, delete tasks).

## Week 3: Advanced React

1. **Day 15: React Router Basics** – Pages, navigation.
2. **Day 16: Nested Routes & Params** – Dynamic routing.
3. **Day 17: Context API (State Management)** – Share data across components.
4. **Day 18: Custom Hooks** – Reusable logic.
5. **Day 19: Error Handling & Boundaries** – Catching errors.
6. **Day 20: Forms with Validation** – Basic validation logic.
7. **Day 21: Mini Project** – Simple Blog App (with routing + context).

## Week 4: Polishing & Deployment

1. **Day 22: Performance Optimization** – React.memo, useCallback, useMemo.
2. **Day 23: Advanced Styling** – Tailwind CSS / Material UI intro.
3. **Day 24: Authentication Basics** – Login form + mock auth.
4. **Day 25: Connecting to Backend** – Full CRUD with your FastAPI backend.
5. **Day 26: State Libraries Intro** – Redux Toolkit basics.
6. **Day 27: Testing in React** – Jest + React Testing Library.
7. **Day 28: Final Project** – Small Dashboard (auth + CRUD + styled UI).

✅ By the end of 4 weeks, you’ll have built **multiple small apps** + **1 mini dashboard** connected to a backend. This will give you solid React.js fundamentals, enough to call yourself a confident React developer.