**React.js Learning Roadmap: From Beginner to Advanced**

**Beginner Level**

**1. JavaScript Fundamentals (If Needed)**

* ES6+ Features: let/const, Arrow Functions, Destructuring, Spread/Rest Operators
* Promises & Async/Await
* DOM Manipulation & Event Handling

**2. Getting Started with React**

* What is React? Why Use It?
* Setting up a React Project (Vite or Create React App)
* Understanding JSX
* Components (Functional vs. Class Components)
* Props and State in React
* Handling Events

**3. React Hooks**

* useState, useEffect, useRef
* useContext for state sharing
* Creating Custom Hooks

**Intermediate Level**

**4. React Router**

* Setting Up React Router
* Dynamic Routing and Nested Routes
* Route Parameters and Navigation

**5. State Management**

* Context API
* Redux Toolkit (Basic Usage)

**6. Working with APIs**

* Fetching Data with Fetch API and Axios
* Handling API Responses and Errors

**7. Forms in React**

* Controlled vs. Uncontrolled Components
* Form Handling with React Hook Form

**8. Styling in React**

* CSS Modules
* Tailwind CSS
* Styled Components

**Advanced Level**

**9. Advanced State Management**

* Redux Toolkit (Async Thunks, Middleware)
* Zustand / Recoil for State Management

**10. Performance Optimization**

* React Memoization: useMemo, useCallback
* Code Splitting and Lazy Loading

**11. Testing in React**

* Unit Testing with Jest and React Testing Library
* Integration Testing

**12. Building a Full-Stack App**

* Connecting React with Node.js/Express (MERN Stack)
* Authentication with JWT or Firebase

**13. Next.js (Optional)**

* Server-Side Rendering (SSR)
* Static Site Generation (SSG)

**Final Projects & Deployment**

* **Project Ideas:** Portfolio, E-commerce App, Social Media App, Dashboard
* **Deployment:** Vercel, Netlify, Firebase Hosting

This roadmap provides a structured approach to mastering React.js from scratch to an advanced level. Follow it step by step, build projects along the way, and enhance your problem-solving skills!