



React Interview Preparation Plan

Topic	Priority	Est. Hours	Checklist (Subtasks)
1. React Fundamentals	High	10	<ul style="list-style-type: none">- JSX & rendering- Components (Functional vs Class)- Props & State- Component Lifecycle (Class + Hooks equivalent)- Event handling
2. Hooks (Core Focus)	High	12	<ul style="list-style-type: none">- useState , useEffect (dependencies, cleanup)- useRef , useMemo , useCallback- useReducer- Custom hooks (reusable logic)- Hook rules & pitfalls
3. Forms & Validation	High	6	<ul style="list-style-type: none">- Controlled vs uncontrolled components- Handling form state- Validation with custom logic- Libraries: Formik / React Hook Form
4. State Management	High	12	<ul style="list-style-type: none">- Context API- Prop drilling & Context solution- Redux (actions, reducers, store)- Redux Toolkit (RTK Query)- When to use Context vs Redux
5. React Router	High	6	<ul style="list-style-type: none">- Dynamic routing- Nested routes- Protected routes- useNavigate , useParams , useLocation
6. Performance Optimization	High	10	<ul style="list-style-type: none">- Reconciliation & Virtual DOM- Memoization (React.memo , useMemo ,

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			useCallback) - Code splitting with React.lazy - Suspense & Error Boundaries
7. TypeScript with React	Medium	8	- Typing props & state - Typing events - Typing hooks - Generic components
8. Styling Approaches	Medium	6	- CSS Modules - Styled Components - Tailwind / Material UI - Best practices in component styling
9. Testing React Apps	Medium	8	- Unit tests with Jest - React Testing Library (RTL) - Mocking API calls - Snapshot testing
10. React with APIs	High	10	- Fetch API & Axios - Handling async data - Custom hook for fetching - Error handling & loading states
11. React + Node Integration	Medium	8	- Building full-stack app - API consumption - Authentication (JWT flow) - Handling CORS
12. Advanced Topics	Medium	10	- React 18 features (Concurrent rendering, Suspense improvements) - Server Components (intro) - Microfrontends basics - GraphQL with Apollo Client
13. System Design for Frontend	High	8	- Component-driven architecture - Folder structures - Reusable components - Performance optimization in large apps

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14. Mock Interviews & Projects	High	12	<ul style="list-style-type: none"> - Build 2–3 mini-projects: <ol style="list-style-type: none"> 1. Task Manager with CRUD 2. E-commerce product listing 3. Authentication flow - Whiteboard coding practice - Mock Q&A on React + JS + TS



Suggested Timeline (4–5 weeks crash prep)

- **Week 1:** Fundamentals, Hooks, Forms
- **Week 2:** State Management, Router, APIs
- **Week 3:** Performance, Testing, Styling
- **Week 4:** TypeScript, Advanced Topics, Full-stack integration
- **Final Week:** Mock Interviews + Projects + System Design



Deliverables by End of Prep

- ☒ 3–4 portfolio-ready React projects
- ☒ Strong command over Hooks, State, APIs, and Performance
- ☒ Hands-on with Redux Toolkit, Router, Testing, and TS
- ☒ Ready answers for React interview theory & coding challenges