



# Testing, Performance Optimization and Deployment



# Unit/Integration testing

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- Jest (<https://jestjs.io/>)
- React-Testing-Library  
(<https://testing-library.com/docs/react-testing-library/intro>)
- Cypress  
(<https://docs.cypress.io/guides/component-testing/react/overview>)

# State management in ReactJS

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- React-Redux (<https://react-redux.js.org/>) and RTK (<https://redux-toolkit.js.org/>)
- Zustand (<https://github.com/pmndrs/zustand>)
- Jotai (<https://github.com/pmndrs/jotai>)
- Recoil (<https://github.com/facebookexperimental/Recoil>)
- Context (useContext) [<https://react.dev/reference/react/createContext>]

# Performance and Optimization

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- Lazy loading (<https://react.dev/reference/react/lazy>)
- code splitting (<https://legacy.reactjs.org/docs/code-splitting.html>)
- service workers/PWA
- Windowing or list virtualization  
(<https://github.com/bvaughn/react-virtualized> / <https://github.com/bvaughn/react-window> )
- useCallback (<https://react.dev/reference/react/useCallback>)
- useMemo (<https://react.dev/reference/react/useMemo>)

# Application performance analytical tools

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- <https://pagespeed.web.dev/>

# Deployment

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- Netlify (<https://www.netlify.com/>)
- Vercel (<https://vercel.com/>)

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