

1. Explain the concept of the Virtual DOM and its benefits.
2. Differentiate between state and props in React. When would you use each?
3. Describe the different types of React components (functional, class-based, etc.).
4. What is the purpose of the `render()` method in React?
5. Explain the concept of JSX and its role in React development.
6. What are Higher-Order Components (HOCs) and how are they used?
7. Describe the different phases of a React component's lifecycle. Mention some important lifecycle methods.
8. Explain the concept of context in React and how it is used for sharing data across components.
9. Differentiate between controlled and uncontrolled components in React.
10. What are some best practices for managing state in complex React applications?
11. How would you implement a component that fetches data from an API and displays it?
12. Explain how to handle user input and update state in a React component.
13. Describe techniques for managing complex UI state in React applications.
14. How would you approach implementing a paginated list with React?
15. Explain different ways to optimize performance in React applications.
16. What are some common challenges you encounter when building large React applications? How do you address them?
17. Describe your experience with testing React components. What testing tools or libraries do you prefer?
18. Explain how you would implement routing in a React application.
19. What are some popular state management libraries used with React (e.g., Redux, MobX)? Briefly explain their functionalities.
20. Describe your experience with building reusable React components.
21. Explain the concept of React Fiber and its improvements over the older reconciliation process.
22. Describe how to implement lazy loading of components in React applications.
23. Explain the purpose and usage of React portals.
24. What are thunks?
25. Describe your experience with using TypeScript in React development. What are its benefits?
26. Explain how to implement error boundaries in React applications.
27. Describe different ways to implement animations in React.
28. What are react hooks?
29. What is a fragment in react?

- 30. What is setstate()?**
- 31. What is useState ()?**
- 32. What's the use effect?**
- 33. What is state lifting in react?**
- 34. Explain redux?**
- 35. What do you mean by props drilling?**
- 36. What is a react router?**
- 37. Explain flux?**
- 38. Difference between stateful and stateless components?**
- 39. What do you mean by props drilling?**
- 40. What is lazy loading?**