

1. What is the concept of state in React, and how does it influence component rendering and behavior?
2. How do you create stateful components in React using functional components with hooks?
3. What are the steps to create stateful components in React using the `useState` hook?
4. How does the `useState` hook work in functional components for managing state?
5. How can you update the state in a functional component using the `useState` hook?
6. Explain the importance of immutability when changing the state in React.
7. What methods can be used to change the state of a React component?
8. How do you consume and access state data within a functional component?
9. Describe the role of state in determining how a React component renders.
10. What are props in React, and how do they differ from state?
11. How do you pass props from a parent component to a child component in React?
12. Explain how a child component can access the props passed down from its parent.
13. What is the React Context API, and what problem does it solve?
14. How do you create and provide a context in a React application?
15. How do you consume context data in a React component?
16. What are the benefits of using global state management solutions like Redux in React applications?
17. How do you set up and configure Redux for managing global state in a React application?
18. What are the main benefits of single-page applications (SPAs) compared to traditional multi-page applications?

19. How do you configure React Router to handle navigation in a single-page application?
20. Explain the history and evolution of routing concepts in web development.
21. How do you create a router for navigation in a React application using React Router?
22. How do you pass parameters to routes in React Router?
23. What are the methods to access route parameters within a React component?
24. How can you implement route protection mechanisms in React Router to control access?
25. What is child routing, and how do you implement it in React Router for complex navigation scenarios?

