

1. What is React.js and who developed it?

React.js is an open-source JavaScript library used for building fast and interactive user interfaces (UIs), especially for single-page applications. It was developed by Jordan Walke, a software engineer at Facebook, and first released in 2013.

2. What is the difference between a React component and a regular JavaScript function?

- Regular JavaScript Function: Performs a specific task, manipulates data, or calculates values. It can return any data type.
- React Component: Defines a reusable piece of the UI. Its primary purpose is to describe what should be rendered on the screen by returning JSX.

3. What is JSX and why is it used in React?

JSX is a syntax extension for JavaScript that lets you write HTML-like code inside JavaScript. It makes UI code more readable and allows embedding variables easily.

4. What is the difference between a functional component and a class component in React?

- Functional Components: These are simple JavaScript functions that accept props as an argument and return JSX. Functional components manage local state using React Hooks, specifically the `useState` hook.
- Class Components: These are ES6 classes that extend `React.Component`. They require a `render()` method that returns JSX, and they use `this.props` to access properties. Class components manage state using `this.state` and update it using `this.setState()`.

5. What is the purpose of the `return()` statement inside a React component?

The `return()` statement inside a component tells React what to display on the screen for that component. Without `return`, nothing gets shown.

6. How do you display dynamic data (e.g., variables) inside JSX?

In JSX, we display dynamic data by wrapping them in curly braces `{}`.

7. What is the difference between props and state in React?

- Props are used to pass data from one component to another, making them useful for communication between components. They are immutable. They can be used in both functional and class components. Props are strictly read-only.
- State is used to manage data within a component itself. It is mutable. State allows both reading and writing of data, enabling components to handle dynamic and interactive content.

8. What is the role of `useState()` in React functional components?

The `useState()` hook in React functional components allows for the introduction of stateful behavior, enabling functional components to manage and update data that can trigger re-renders of the component.

9. What is the significance of the `key` attribute in React lists?

The `key` attribute is used to uniquely identify elements in a list when rendering multiple items.

10. How do you handle events like button clicks in React?

In React, we handle events by attaching event handler functions to elements using JSX attributes such as `onClick`, `onChange`, `onSubmit`, etc

Example : `<button onClick={handleClick}>Click</button>`