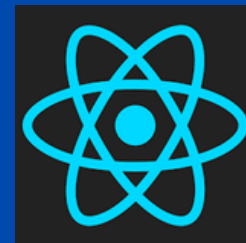


Add Circle - with button

INTERVIEW QUESTIONS-97



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Coding question-3

Requirment

- When you click the button, a circle should be created.
- On each click on button an extra circle should be added to the UI.
- Then, when you click on each circle, its color should changed

Code

```
function ButtonWithCircles() {
  const [circles, setCircles] = useState([]);

  const addCircle = () => {
    setCircles((prevCircles) => [...prevCircles, "transparent"]);
  };

  const changeCircleColor = (index) => {
    const newCircles = [...circles];
    newCircles[index] = "green";
    setCircles(newCircles);
  };

  return (
    <div>
      <button onClick={addCircle}>Add Circle</button>
      {circles.map((color, index) => (
        <Circle
          key={index}
          color={color}
          onClick={() => changeCircleColor(index)}
        />
      ))}
    </div>
  );
}

export default ButtonWithCircles;
```

```
function Circle({ color, onClick }) {  
  return (  
    <div  
      style={{  
        width: "100px",  
        height: "100px",  
        borderRadius: "50%",  
        backgroundColor: color || "transparent",  
        border: "2px solid black", // Add a border for the circle  
        margin: "10px",  
        cursor: "pointer",  
      }}  
      onClick={onClick}  
    />  
  );  
}
```

Explanation

- The **ButtonWithCircles** component renders a button labeled "Add Circle" and a list of circles.
- When the "**Add Circle**" button is clicked, it triggers the `addCircle` function, which adds a new circle with the initial color "transparent" to the list of circles.
- Each circle is represented by the **Circle** component, which receives two props:
 - **color**: The background color of the circle. Initially set to "transparent".
 - **onClick**: A function to handle the click event on the circle.

- The **Circle** component renders a div with dimensions of 100px by 100px, border-radius to create a circular shape, and a border for visual distinction. The background color is determined by the color prop, defaulting to "transparent" if not provided.
- When a circle is clicked, it triggers the **changeCircleColor** function in the **ButtonWithCircles** component, which updates the color of the clicked circle to "green" by modifying the **circles** state array.
- Each circle maintains its own color state, allowing for independent color changes upon clicking.

**Here with this code the performace issues
are minor , So i am not using use memo or
callback hooks in the code**



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