

Testing Conditional Rendering

Scenario: Create a `UserProfile` component that conditionally renders user data.

Requirements:

1. Create a React component `UserProfile` with:
 - A prop `user` that contains user data (e.g., `{ name: "John", age: 30 }`).
 - If `user` is passed, render the user's name and age.
 - If `user` is `null` or `undefined`, display "No user data available".
2. Write tests to:
 - Verify that user data is rendered correctly when the `user` prop is provided.
 - Verify that "No user data available" is displayed when no user data is passed.

Testing Props and State

Scenario: Create a `Toggle` component with a button to toggle between "ON" and "OFF" states.

Requirements:

1. Create a React component `Toggle` with:
 - A state variable `isOn` (boolean) that toggles between `true` and `false`.
 - A button that toggles the state and displays "ON" or "OFF" based on the state.
2. Write tests to:
 - Verify the initial state is "OFF".
 - Check that clicking the button toggles the state between "ON" and "OFF".

Hints:

- Use `fireEvent.click()` to test button interactions.
- Use `getByRole('button')` to locate the button.