

Report Day: 7.5

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Task:

React Conditional Styling & Component Libraries (Tailwind, Bootstrap)

1. Introduction

In modern React development, styling plays a key role in building visually appealing and user-friendly applications. Developers often use:

- Conditional styling to change the look of components based on state or props.
- Component libraries like Tailwind CSS and Bootstrap to speed up development with ready-to-use styles and components.

2. Conditional Styling in React

Conditional styling means applying styles dynamically based on certain conditions (like `isActive`, `isError`, `theme`, etc.)

3. Component Libraries in React

Component libraries offer **pre-built styles**, **UI elements**, and **utility classes** that make development faster and consistent.

4. Tailwind CSS

What is Tailwind?

Tailwind is a **utility-first CSS framework** that lets you style components **directly in the class attribute**.

Example:

```
1  <button className="bg-blue-500 hover:bg-blue-700 text-white font-bold py-2 px-4 rounded">
2    Submit
3  </button>
4
```

Benefits:

- Utility-first (no need for separate CSS files)
- Easily customizable themes
- Great community and plugins
- Responsive design with built-in breakpoints

5. Bootstrap with React

What is Bootstrap?

Bootstrap is a popular CSS framework offering ready-made UI components like modals, navbars, alerts, buttons, and forms.

```
jsx

<button className="btn btn-primary">
  Submit
</button>
```

Conclusion

Conditional styling allows React apps to respond dynamically to user actions or state changes. **Component libraries** like **Tailwind CSS** and **Bootstrap** empower developers to **build stylish, responsive UIs quickly**.

Choosing the right styling method or library depends on our **project size, design flexibility, and development speed**.