

## THEORY EXERCISE

### Module-5) React - Styling & Advance React

#### 1. Different Ways to Style Components in React

React provides multiple ways to apply styles to components:

##### 1. Inline Styling

- Uses the style attribute with a JavaScript object.
- Example:

```
const style = { color: "blue", fontSize: "20px" };  
<h1 style={style}>Hello, React!</h1>
```

##### 2. CSS Stylesheets (.css files)

- ✓ Imports a global CSS file into a React component.
- ✓ Example:

```
import "./styles.css";  
<h1 className="title">Hello, React!</h1>
```

##### 3. CSS Modules (.module.css)

- Provides scoped styles to prevent conflicts.
- Example:

```
import styles from "./Button.module.css";  
<button className={styles.button}>Click Me</button>;
```

##### 4. (CSS Styled Components -in-JS)

- Uses JavaScript to define CSS inside a component.
- Example:

```
import styled from "styled-components";  
const Button = styled.button`background-color: blue; color: white;`;  
<Button>Click Me</Button>;
```

## 5. Tailwind CSS

- Utility-first CSS framework.
- Example:

```
<button className="bg-blue-500 text-white px-4 py-2">Click  
Me</button>
```

## 6. SASS/SCSS

- Uses Sass for advanced styling features like variables and nesting.
- Example:

```
.button {  
  background-color: blue;  
  &:hover {  
    background-color: darkblue;  
  }  
}
```

## 2. Difference Between CSS and CSS Modules in React

Feature	CSS Stylesheets	CSS Modules (.module.css)
Scope	Global (Affects all components)	Local (Scoped to the component)

Feature	CSS Stylesheets	CSS Modules (.module.css)
Naming Conflicts	Possible (Class names can clash)	Prevented (Unique class names)
Import Syntax	<code>import './styles.css';</code>	<code>import styles from './Button.module.css';</code>
Usage in JSX	<code>className="button"</code>	<code>className={styles.button}</code>
Best Use Case	Global styles, themes	Component-specific styles

- ✅ CSS Modules are preferred for large projects to avoid conflicts.
- ✅ CSS Stylesheets are useful for global styles like resets, themes, and typography.