**What is JSX?**

**JSX** stands for **JavaScript XML**. JSX is basically a syntax extension of JavaScript.

React JSX helps us to write HTML like str. in JavaScript and forms the basis of React Development. Using JSX is not compulsory but it is highly recommended for programming in React as it makes the development process easier as the code becomes easy to write and read.

JSX creates an element in React that gets rendered in the UI. It is transformed into JavaScript functions by the compiler at runtime. Error handling and warnings become easier to handle when using JSX

**React JSX sample code:**

const ele = <h1>This is sample JSX</h1>;

This is called JSX (JavaScript XML), it somewhat looks like HTML and also uses a JavaScript-like variable but is neither HTML nor JavaScript. With the help of JSX, we have directly written the HTML syntax in JavaScript.

[**https://www.freecodecamp.org/news/jsx-in-react-introduction/**](https://www.freecodecamp.org/news/jsx-in-react-introduction/)

**Role of type attribute in script tag? What options can I use there?**

The type attribute indicates the content type, also known as the MIME type, of the scripting language used in the external file you include in your HTML. This is how you would include a type attribute in your script tag

### ****[In-depth Look Into The JavaScript Script Tag Attributes](https://dev.to/manikbajaj/in-depth-look-into-the-javascript-script-tag-attributes-1ei3)****

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● {TitleComponent} vs {<TitleComponent/>} vs {<TitleComponent></ TitleComponent >} in JSX

1. \*\*{TitleComponent}\*\*:

- This is just the name of the component, like referring to it. You don't actually create or use the component with this syntax. You'd use it when passing around or referencing the component.

2. \*\*{<TitleComponent/>}\*\*:

- This is a self-closing tag, meaning the component doesn't have anything inside it. It's a shorter way to say "create this component." Use this when there's nothing to insert between the opening and closing tags.

- Example:

```jsx

const App = () => (

<div>

<TitleComponent/>

</div>

);

```

3. \*\*{<TitleComponent></TitleComponent>}\*\*:

- This is a component with an opening and closing tag, meaning you can put other content inside. Use this when the component has or might have some internal content.

- Example:

```jsx

const App = () => (

<div>

<TitleComponent>

Some text or another component

</TitleComponent>

</div>

);

```

In short:

- Use `{<TitleComponent/>}` when you don't need to add anything inside.

- Use `{<TitleComponent></TitleComponent>}` when you might add content inside.

- `{TitleComponent}` is just a reference to the component, not actual JSX.