Assignment 3

▼ What is JSX?

As the syntax of React.createElement() becomes complex for larger HTML code, we use JSX for simplification.

JSX is called as Javascript XML by many but there is no official documentation for that.

It is basically update HTML using JS

It is not HTML, it has an HTML like syntax.

JSX is converted into React.createElement → This is done by **BABEL** (comes with parcel)

React.CreateElement →

```
const element = React.createElement('h1', {}, 'Hello World!');
const root = ReactDOM.createRoot(document.querySelector('#root'));
root.render(element);
```

JSX →

```
const element = <h1>Hello World!</h1>;
const root = ReactDOM.createRoot(document.querySelector('#root'));
```

▼ Superpower of JSX

As JSX returns an object we can do things such as:
-Assign it as a variable
-Return it from a function

-Conditionally render different elements
-JSX also helps to prevent XSS attacks. It Sanitizes the data in React.

```
// 1) Assigning as a variable

const heading = <h1 className="tilte">Heading1 </h1>


// 2) Return from a function
function getOurHeading() {

    return <h1 className="tilte">Heading1 </h1>


}

// 3) Use of Conditional rendering

function getHeading(is_heading) {
  if(is_heading) {
          return <h1 className="tilte">Heading1 </h1>

  } else {

    return <h2 className="tilte">Heading2 </h1>
}


}
```

▼ What is the role of the type attribute in <script> Tag?

```
<script type="text/javascript"></script>
```

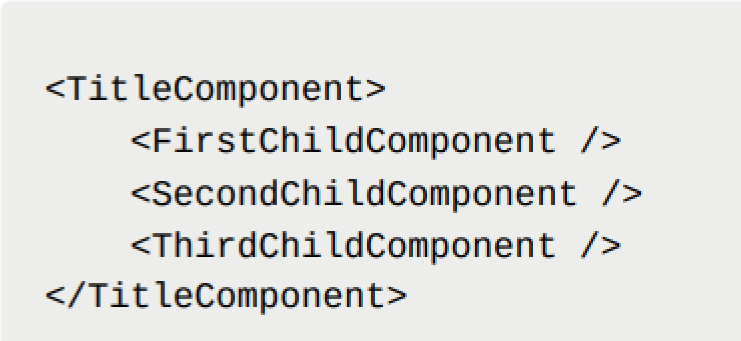
- `text/javascript` : It is the basic standard of writing JavaScript code inside the `<script>.`
- `text/ecmascript` : The script is followingthe ECMAScript standards.
- `module`: The script is a module that can import or export other files or modules inside it.
- `text/babel` : This value indicates that the script is a babel type and requires babel to transpile it.
- `text/typescript`: This script is written in `TypeScript`.

▼ {TitleComponent} vs {<TitleComponent/>} vs {<TitleComponent></TitleComponent>} in JSX .

{TitleComponent} : Expressions in JSX are wrapped using {} . This value describes the TitleComponent as a javascript expression.

<TitleComponent/> : This value represents a Component that is basically returning Some JSX value. A component is written inside the {< />} expression.

<TitleComponent></TitleComponent> : <TitleComponent /> and <TitleComponent> </TitleComponent> are equivalent only when < TitleComponent /> has no child components. The opening and closing tags are created to include the child components



```
<TitleComponent>
    <FirstChildComponent />
    <SecondChildComponent />
    <ThirdChildComponent />
</TitleComponent>
```