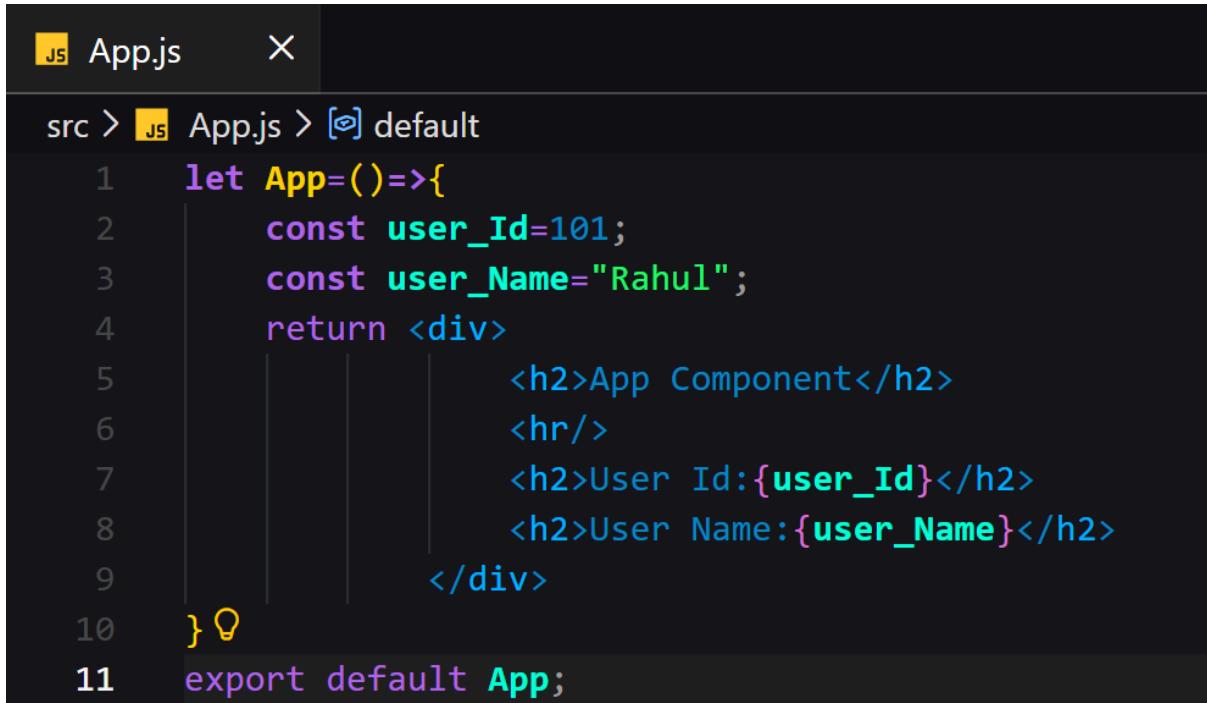_____

In **React**, an *expression* is **any piece of JavaScript code that returns a value** —
and you can embed these expressions **inside JSX using curly braces { }**.

Simple Definition

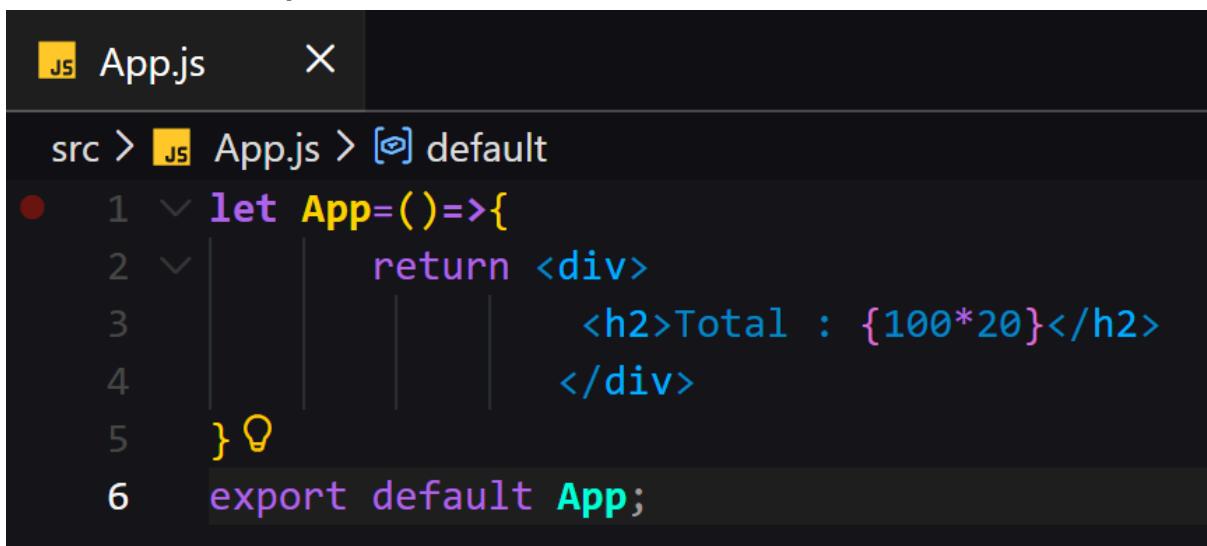**React Expression = JavaScript code written inside { } in JSX that returns a value.**

Examples of React Expressions

1. Variables inside JSX

```js
let App=()=>{
    const user_Id=101;
    const user_Name="Rahul";
    return <div>
            <h2>App Component</h2>
            <hr/>
            <h2>User Id:{user_Id}</h2>
            <h2>User Name:{user_Name}</h2>
        </div>
}
export default App;
```

2. Mathematical expressions

```js
let App=()=>{
        return <div>
                <h2>Total : {100*20}</h2>
            </div>
}
export default App;
```

_____

3. Function calls

```
JS App.js        ✕

src > JS App.js > default
1    let greet = ()=>{
2        return "Good Morning..";
3    }
4    let App=()=>{
5        return <div>
6                <h2>{greet()}</h2>
7                </div>
8    }
9    export default App;
```
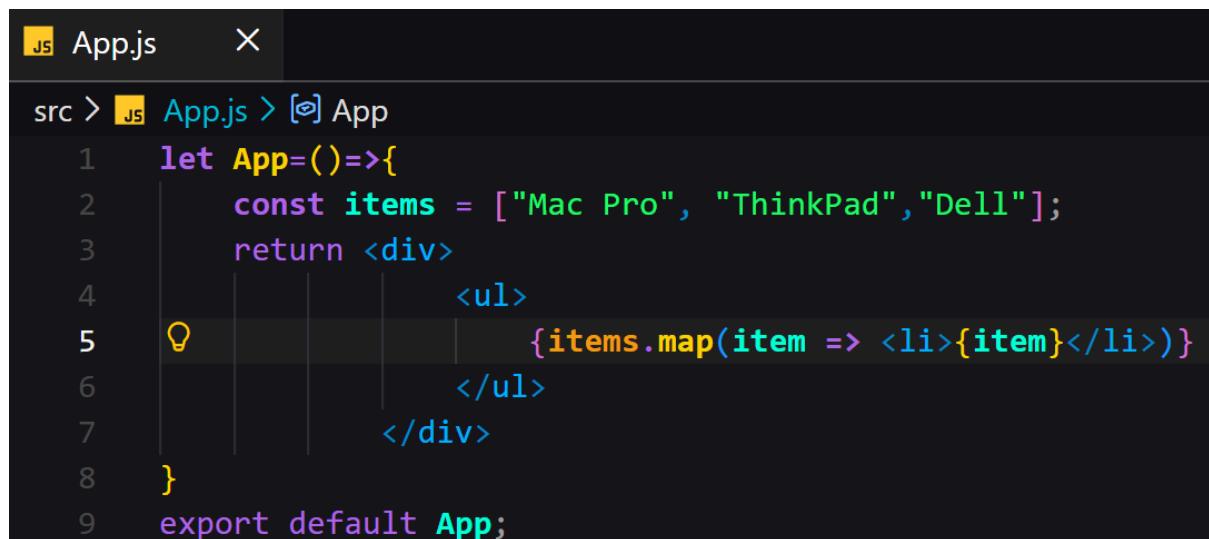
4. Conditional expressions (ternary)

```
JS App.js        ✕

src > JS App.js > default
1    let App=()=>{
2        const isLoggedIn = true;
3        return <div>
4                <p>{isLoggedIn ? "Welcome!" : "Please login"}</p>
5                </div>;
6    }
7    export default App;
```

_____

5. Array operations

```
App.js          ✕

src >  App.js >  App
1     let App=()=>{
2         const items = ["Mac Pro", "ThinkPad","Dell"];
3         return <div>
4                 <ul>
5                     {items.map(item => <li>{item}</li>)}
6                 </ul>
7             </div>
8     }
9     export default App;
```

❌ What React expressions cannot contain

React **does NOT allow statements inside JSX**, such as:

- `if` statements
- `for` loops
- `while` loops
- Variable declarations (`let` , `const` , `var`)

💬 Summary

Feature	Allowed?	Example
Expressions	✔ Yes	`{a + b}` , `{name}` , `{fn()}`
Statements	❌ No	`if () {}` , `for() {}` , `let x = 10`