

JavaScript XML

JSX is an extension to XML, that's why the syntax of JSX looks extremely similar to XML and HTML (HTML is also a derivative of XML only).

JSX allows us to write HTML in React. JSX make it easier to write and add HTML in React.

- JSX is not expected to be included in browsers and also JSX is not included in the official ECMAScript .(means it doesn't support the official syntax of JS).
- They expect that there should be a some layer of `transpilation` that can convert that JSX into normal JS code.

Example code for JSX

```
<Dropdown>
  A dropdown list
  <Menu>
    <MenuItem>Do Something</MenuItem>
    <MenuItem>Do Something Fun!</MenuItem>
    <MenuItem>Do Something Else</MenuItem>
  </Menu>
</Dropdown>;
```

Transpilation

Transpilation means converting source code from one high-level language to another.

We can use transpilers like `Babel` to convert JSX to compatible JS.

<pre>1 <Dropdown> 2 A dropdown list 3 <Menu> 4 <MenuItem>Do Something</MenuItem> 5 <MenuItem>Do Something Fun!</MenuItem> 6 <MenuItem>Do Something Else</MenuItem> 7 </Menu> 8 </Dropdown>;</pre>	<pre>1 /*#__PURE__*/React.createElement(Dropdown, null, "A dropdown list", /*#__PURE__*/React.createElement(Menu, null, /*#__PURE__*/React.createElement(MenuItem, null, "Do Something"), /*#__PURE__*/React.createElement(MenuItem, null, "Do Something Fun!"), /*#__PURE__*/React.createElement(MenuItem, null, "Do Something Else")));</pre>
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Features of JSX

- Looks and feels like HTML
- Has some minor differences compared to HTML
- Writing complex UI logic in easy with JSX.

- Get's easily embedded with any JS code as well as i.e. in the same file we can write JS and JSX together.

Note:

To use JSX in your code base, we need to make a file with .jsx extension.

Benefits of JSX

JSX **enhances the readability and maintainability of code by allowing developers to write HTML-like syntax within JavaScript.** JSX provides the ability to create reusable components.

Why JSX is better than JS

JSX is an addition to the JavaScript syntax which is a mixture of both HTML and JavaScript. Both JS and JSX are interchangeable but **JSX makes the code easier to understand for users.** JSX is popularly used in React, as it makes the job of building an application much easier.