

Define JSX

JSX (JavaScript XML) is a syntax extension for JavaScript used in React. It allows writing HTML-like code directly within JavaScript. JSX makes it easier to create and visualize UI components.

Example: `const element = <h1>Hello JSX!</h1>;`

Explain about ECMA Script

ECMAScript is the standardized scripting language specification upon which JavaScript is based. Different versions of ECMAScript (e.g., ES5, ES6, ES7...) define language features. ES6 introduced modern features like `let/const`, arrow functions, classes, modules, promises, etc.

Explain `React.createElement()`

`React.createElement()` is a method provided by React to create elements manually. JSX is compiled into this function.

Syntax: `React.createElement(type, props, ...children)`. Example: `React.createElement('h1', null, 'Hello world!')`

Explain how to create React nodes with JSX

React nodes are created using JSX within functional or class components. JSX allows creating a hierarchy of elements which are rendered to the DOM.

Example: `const node = <div><h1>Hello</h1></div>;`

Define how to render JSX to DOM

To render JSX to the actual browser DOM, `ReactDOM` or `createRoot` (React 18+) is used.

Example (React 18):

```
ReactDOM.createRoot(document.getElementById('root')).render(<App />);
```

Explain how to use JavaScript expressions in JSX

JavaScript expressions can be embedded in JSX using curly braces `{}`. You can insert variables, expressions, or function calls inside JSX.

Example: `const name = 'Avi'; JSX: <h1>Hello, {name}</h1>`

Explain how to use inline CSS in JSX

Inline styles are defined as JavaScript objects with camelCase property names. Example: `<h1 style={{ color: 'red', backgroundColor: 'yellow' }}>Styled Text</h1>`