### JSX (JavaScript XML)

* Syntax extension for JavaScript used in React.
* Looks like HTML but compiles to React.createElement() calls.

jsx

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const element = <h1>Hello, Rishi</h1>;

### ECMA Script

* Official standard for JavaScript, maintained by ECMA International.
* ES6 (2015) introduced major features: let, const, arrow functions, classes, modules, etc.

### React.createElement()

* Core API to create React elements (virtual DOM).

js

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React.createElement('h1', {className: 'title'}, 'Hello');

* JSX is syntactic sugar for this.

### Creating React Nodes with JSX

* Assign JSX code to variables.

jsx

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const element = <p>This is JSX</p>;

* Nested JSX:

jsx

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const element = (

<div>

<h1>Title</h1>

<p>Details here</p>

</div>

);

### Render JSX to DOM

* Use ReactDOM.render() to display JSX.

jsx

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

### JavaScript Expressions in JSX

* Use {} to embed expressions inside JSX.

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const name = "Rishi";

const element = <h1>Hello, {name}</h1>;

* Supports operations, ternary, function calls, etc.

### Inline CSS in JSX

* Use the style prop with a JS object.

jsx

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const style = { color: 'blue', fontSize: '20px' };

const element = <h1 style={style}>Styled Text</h1>;

* Property names must be in camelCase (e.g., backgroundColor).