**React**

**React is a javascript library which can be imported and can be used in any piece of code.**

Injecting react into index.html is through CDN.  
<script crossorigin src="https://unpkg.com/react@18/umd/react.development.js"></script> - React core

<script crossorigin src="https://unpkg.com/react-dom@18/umd/react-dom.development.js"></script> - React DOM

Most costliest operation in browser when DOM nodes need to be manipulated. React is trying to optimize this operation and use javascript internally.

ReactElement(Object) ======🡺HTML(Browser understands)  
When we write React.createElement, it creates an object which gets rendered to DOM when we call render method.

const heading = React.createElement('h1', {id:'heading'}, 'This is React heading');

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(heading);

Nested HTML

<div id="parent">

    <div id="child">

        <h1>This is h1</h1>

    </div>

</div>

React.createElement('div',{id:'parent'}, React.createElement('div', {id:'child'}, React.createElement('h1', {}, 'Tjhis is h1 tag')))

Complex Nested sibling HTML

<div id="parent">

    <div id="child">

        <h1>This is h1</h1>

        <h2>This is h2</h2>

    </div>

</div>

React.createElement('div',{id:'parent'}, React.createElement('div', {id:'child'}, [React.createElement('h1', {}, 'This is h1 tag'),

React.createElement('h2', {}, 'Tjhis is h2 tag')]))

<div id=”root”>

<p></p>//replaced  
<h2></h2>//replaced

</div>

Const root = ReactDOM.createRoot(document.getElementByID(‘root’));  
root.render(root) replaces all the HTML present inside Element.