**React.js**

Hello World From HTML:

<body>

    <div id="root">

        <h1>Hello World From HTML!</h1>

    </div>

</body>

Hello world from JS:

<body>

    <div id="root"></div>

    <script>

        const heading = document.createElement("h1"); //we want to create h1 tag in the div

        heading.innerHTML = "Hello World From JS!!";

        const root = document.getElementById("root"); //root, i.e., a block where the h1 tag will be created

        root.appendChild(heading); //now heading is appended to the root

    </script>

</body>

Hello World from React:

For react we need cdn(content delivery network) link.

A CDN, or Content Delivery Network, is a network of servers distributed across various locations worldwide. Its purpose is to deliver web content, such as images, videos, scripts, stylesheets, and other assets, to users more efficiently and reliably.

They are widely used by websites and web applications of all sizes to deliver content quickly and reliably to users around the world.

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

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

Crossorigin: The crossorigin attribute is used in HTML to specify how the browser should handle requests for resources that are hosted on a different domain (cross-origin requests).

The crossorigin attribute can be added to certain HTML elements like <script>, <img>, <video>, <audio>, <link>, and <iframe>. It allows you to control how the browser handles the crossorigin requests for those resources.

Possible values for the crossorigin attribute:

1. anonymous: Requests will not include any credentials such as cookies or HTTP authentication.
2. use-credentials: Requests will include credentials such as cookies or HTTP authentication if the requesting origin is allowed to access the resource. This value allows for more secure requests but requires proper CORS (Cross-Origin Resource Sharing) configuration on the server.

When your web page wants to grab something like an image or a script from another website (which is a different "origin" or domain), the browser needs to decide if it's okay to do that. It's like asking, "Can I use this?"

The crossorigin attribute is like telling the browser how it should ask for permission. There are two options:

"anonymous" means the browser doesn't send any special information along with the request. It's like saying, "I'm just looking, not sharing any personal details."

"use-credentials" means the browser might send cookies or other authentication information if it has them. It's like saying, "Hey, I'm allowed to access this, here's my ID."

So, crossorigin helps control how the browser fetches resources from other places, keeping things secure while allowing your web page to use stuff from different websites.

<body>

    <div id="root">

        <h1>Hello</h1>

    </div>

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

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

    <script>

        const heading = React.createElement("h1", {}, "Hello World from React!");

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

        root.render(heading);

    </script>

</body>

Here, the React code creates an h1 tag. It replaces all the contents present inside the id = “root”, i.e. the output of the above code is : **Hello World From React!**

And Not: **Hello**

**Hello World From React!**

Here, React.createElement() creates an object and not any tag, having all the details, like key, props (props has the information of the content which will go inside the tag and the attributes of the tag) etc

We have 2 cdn links here, one is React development and other is react dom development. React development is core of React. React DOM, is the react library which is used for DOM manipulation.

We have 2 different files, they are not clubbed to make one file, because react doesn’t only work on browsers, it also works in phone as react Native, and other places as well, so there are different functionalities which happen on phone and browsers. So, one file ahs all the core of React, and other file is different for different platforms.

Now, creating an external JS file.

<body>

    <div id="root"></div>

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

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

    <script src="App.js"></script>

</body>

Out JS file should come after the cdn links, as we are using React, so React cdn links should be processed first.