

Assignment- 1

1. What is emmet?

→ Emmet is a plugin for many popular text editors which greatly improves HTML & CSS workflow. It is a set of plug-ins for text editors that allow for high-speed coding and editing in HTML, XML, XSLT, and other structured code formats via content assist.

2. Difference between a Library and Framework?

→ A library is a collection of functions developers can call at will and still control the flow of the software application. The operations performed to be performed by libraries are precisely and specifically defined.

A framework is a structure in which the application defines the content of the operation by asking the developer to fill in the spaces. The framework defines the concept with the functionality itself is defined by the developer with the end-user in mind.

Frameworks and libraries are code written by third parties to solve regular/common problems or to optimize performance. A key difference between the two is the inversion of control. When using a library, the control remains with the developer who tells the application when to call library functions. When using a framework, the control is reversed, which means that the framework tells the developer where code needs to be provided and calls it as it requires.

3. What is CDN? Why do we use it?

→ A CDN (content delivery network), also called a content distribution network, is a group of geographically distributed and interconnected servers. They provide cached internet content from a network location closest to a user to speed up its delivery.

The primary goal of a CDN is to improve web performance by reducing the time needed to send content and rich media to users.

The mission of a CDN is to reduce latency. Latency is that annoying delay you

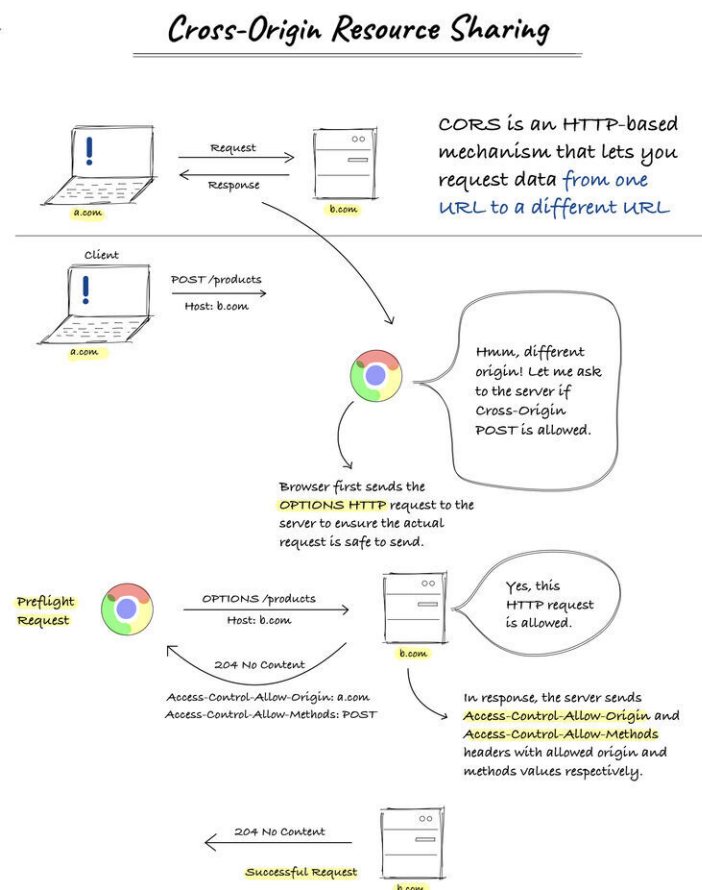
experience when trying to access a web page or video stream before it fully loads on your device. Although measured in milliseconds, it can feel like forever, and may even result in a load error or time-out.

4. What is cross origin in script tag?

→ The cross origin attribute sets the mode of the request to an HTTP CORS Request.

Web pages often make requests to load resources on other servers. Here is where CORS comes in.

A cross-origin request is a request for a resource (e.g. style sheets, iframes, images, fonts, or scripts) from another domain.



5. What is difference between React and ReactDOM?

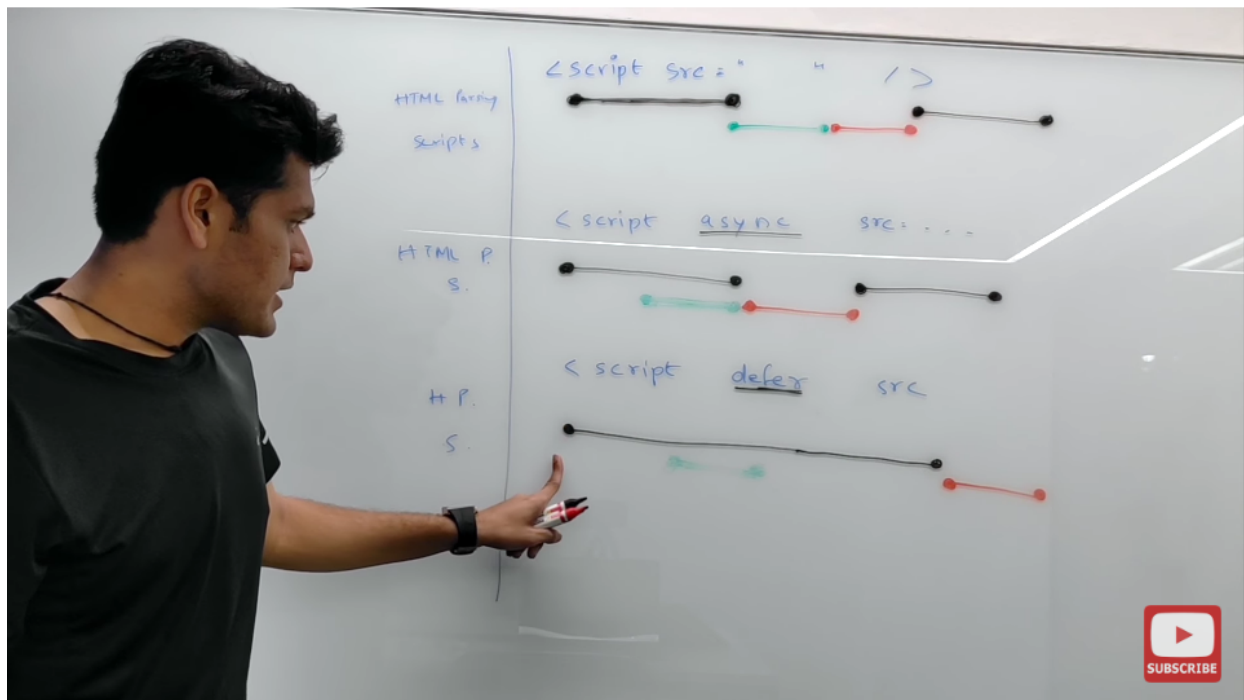
→ The `react` package holds the react source for components, state, props and all the code that is `react`.

1st CDN link can be imagined as the core library.

The `react-dom` package as the name implies is the glue between React and the DOM. Often, you will only use it for one single thing: mounting your application to the `index.html` file with `ReactDOM.render()`.

2nd CDN link can be imagined as the library which gives you access to DOM.

6. What is async and defer?



→ Both `async` and `defer` have one common thing: downloading of such scripts doesn't block page rendering. So the user can read page content and get acquainted with the page immediately.

But there are also essential differences between them:

	Order	<code>DOMContentLoaded</code>
<code>async</code>	Load-first order. Their	Irrelevant. May load and execute while the

	document order doesn't matter – which loads first runs first	document has not yet been fully downloaded. That happens if scripts are small or cached, and the document is long enough.
<code>defer</code>	<i>Document order</i> (as they go in the document).	Execute after the document is loaded and parsed (they wait if needed), right before <code>DOMContentLoaded</code> .

In practice, `defer` is used for scripts that need the whole DOM and/or their relative execution order is important.

And `async` is used for independent scripts, like counters or ads. And their relative execution order does not matter.

7. What is difference between `react.development.js` and `react.production.js` files via CDN?

→ The very basic difference is that Production Build has ugly, minified(compressed) version of your JavaScript code, so this makes rendering of file on end user's browser very quick and performance enhancing.

The production and development build come into the picture just because of performance impact in real life deployed the application