# **CHAPTER 01**

*Q1: What is Emmet?*

“Emmet is a plug in for many popular text editors which greatly improves HTML & CSS workflow:”

VS code is one such IDE which provides various shorthands to reduce coding time and to enhance developer experience.

DOCTYPE: ! [tab]

div.class1.class2 | ul>li\*3 | div>p{$@-N} | div + div +span | div (a>span.hello$)\*3

dnone | p101010 | m10

<https://medium.com/@kartik2406/web-development-with-vs-code-part-1-emmet-6af80f0f630c>

*Q2:* *Difference between a Library and Framework?*

<https://www.freecodecamp.org/news/the-difference-between-a-framework-and-a-library-bd133054023f/>

The technical difference between a framework and library lies in a term **called inversion of control.**

*Q3: What is CDN(*content delivery network*)? Why do we use it?*

<https://www.cloudflare.com/en-gb/learning/cdn/what-is-a-cdn/>

* **Improving website load times**
* **Reducing bandwidth costs**
* **Increasing content availability and redundancy**
* **Improving website security**

*Q4: Why is React known as React?*

React majorly deals with huge amount of continuous data manipulation, React based UI has to deal with lot of current state of the data. Being known for its fast reaction to data changes, the meta team named it React because of its fast reactive nature.

*Q5: What is crossorigin in script tag?*

Crossorigin attribute is used to specify the mode of request to HTTP CORS request. Web pages often request resources from another server, CORS (Cross Origin Resource Sharing) helps in making request from one domain to another. It defines a way how a browser and a domain will interact and weather it is secure to do so.

Due to security issues often browser blocks two different domains to interact, in that case developer need to exclusively write code to allow particular to be used by it’s application being developed. [ values= anonymous | use-credentials]

<https://www.w3schools.com/tags/att_script_crossorigin.asp>

*Q6:What is difference between React and ReactDOM?*

<https://medium.com/programming-sage/react-vs-react-dom-a0ed3aea9745>

React is a library developed to improve better UI and to have a better user experience. ReactDOM is a complimentary library developed to glue the React features to the DOM. React alone has nothing to do with browser or web in general.

React Native is another UI framework which has nothing to do with web components or browser, hence, in order to keep it generic ReactDOM was separately developed.

*Q7: What is difference between react.development.js and react.production.js files via CDN?*

React development as the name suggests is meant for developers while developing an application. It gives features like debugging, HMR, and lets the developer modify if needed.

Production is on the other hand provides uglify and minified version of the code. It basically what runs on the client’s machine. It builds the code in to one or more minified files. It extracts all the resources, CSS, images. No hot reloading is included.

<https://stackoverflow.com/questions/48151128/difference-between-production-and-development-build-in-reactjs#:~:text=The%20development%20build%20is%20used,running%20on%20your%20client's%20machine>.

*Q8: What is async and defer?*

Script tag can have async or defer which are Boolean used to load external scripts efficiently. Ideally, a script tag with out any such attributes will wait for the HTML to parse and as soon as it encounters script tag it will fetch from network and executes the script line by line.

**Async:** HTML parsing happens and when it encounters script tag it fetches while HTML parsing continues. Once fetching is done it will block the html rendering and execute the scripts. Once done it will continue with the HTML parsing.

Does not maintain order of execution of script tags.

**Defer:** HTML parsing happens and simultaneously script fetching happens and keeps it on hold until HTML parsing is done. Once HTML parsing completes it executes the scripts.

Maintains order of execution of script tags.

<https://beta.reactjs.org/apis/react/createElement>