

## 01 : Inception Homework

### 1) What is Emmet?

Emmet is a plugin for many popular text editors that helps to improve HTML and CSS workflow. Emmet prevents you from writing entire code by yourself by providing Emmet abbreviations.

Example - If we type ! in vs code editor, We'll get an HTML template.

### 2) Difference between a Library and Framework?

Both Library and Framework are collections of reusable code written by others. Their goal is to help you solve common problems in an easier way.

Library :

Libraries provide developers with predefined functions and classes to make their work easier and boost the development process.

Library does not have strict guidelines.

Ex - React Library, We can use React in small parts of applications like sidebar or footer even if the complete application is built using a different framework. By using the library, you can control the flow of applications and call the library.

Framework :

Framework is like the foundation upon which developers build applications for specific platforms.

When you use a framework, the flow is inverted. I.e. the framework controls the flow and calls your code.

Frameworks have strict rules and guidelines compared to library

### 3) What is CDN? Why do we use it ?

A Content Delivery Network (CDN) is a geographically distributed network of servers and data centers that work together to deliver web content, such as text, images, videos, and other assets, to users based on their geographical location.

Benefits of using CDN - Faster Content Delivery, Load Balancing, Improved Website Performance, Scalability, Content Caching, Redundancy and Reliability

Today the majority of web traffic is served through CDNs, including traffic from major sites like Facebook, Netflix, and Amazon.

### 4) Why is React known as React?

React is called "React" because of its core feature, which is its ability to "react" or respond dynamically to changes in data.

The name "React" is derived from the way the library handles changes and updates in a user interface. Instead of directly manipulating the DOM (Document Object Model) to update the user interface, React encourages developers to describe how the UI should look at any given point in time. Developers declare the desired state of the UI, and React takes care of efficiently updating the actual DOM to match that declared state.

This approach is often referred to as "reactive" or "declarative" because it involves defining how the UI should react to changes in data or state. When the underlying data changes, React automatically "reacts" by efficiently updating the UI to reflect those changes.

## 5) What is crossorigin in the script tag?

The **crossorigin** 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.

CORS is used to manage cross-origin requests. CORS stands for Cross-Origin Resource Sharing, and is a mechanism that allows resources on a web page to be requested from another domain outside their own domain. It defines a way of how a browser and server can interact to determine whether it is safe to allow the cross-origin request. CORS allows servers to specify who can access the assets on the server, among many other things.

Tip: The opposite of cross-origin requests is same-origin requests. This means that a web page can only interact with other documents that are also on the same server. This policy enforces that documents that interact with each other must have the same origin (domain).

## 6) What is the difference between React and ReactDOM ?

**React:** React is a javascript library, designed for building better user interfaces.

**React-DOM:** React-DOM is a complimentary library to React which glues React to the browser DOM. It is the bridge between React and browser DOM.

In a nutshell, Whenever we use components, classes, elements, etc. We're using React and whenever we use methods like `render()` or `findDOMNode()` we're using React-DOM as we are working with DOM.

Why did the React team decide to split React and React-DOM into two different libraries?

Because React does not only work with browsers, It is also used in various other developments like mobile applications so there are different libraries like `react-native`, `react-art`, `react-three`, etc.

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

`react.development.js` - More developer friendly, readable, will take more size. The development version contains additional code, comments, and debugging information that aids in development and troubleshooting

`react.production.js` - Minified code that is not developer friendly as it focused on decreasing file size, code efficiency. The production version is optimized for performance and has undergone various optimizations, including minification and removal of unnecessary code, resulting in a smaller file size.

### **8) What is async and defer?**

Async and defer are boolean attributes that are used with script tag. Async allows your script to run as soon as it's loaded, without blocking other elements on the page. Defer means your script will only execute after the page has finished loading.

 [async vs defer attributes in Javascript | Ola Interview Question](#)