**Theory**

1. **What is Emmet?**

Emmet is a plugin that helps us write HTML and CSS faster by using simple abbreviations that are then converted into code blocks. Emmet greatly

improves and speeds up your HTML and CSS workflow, saving you the stress of having to manually type out the code in full.

ex : nav>ul>li

<nav>

<ul>

<li></li>

</ul>

</nav>

2. **Difference between a Library and Framework?**

Both libraries and frameworks are reusable code written by someone else. Their purpose is to help you solve common problems in easier ways.

Diagram

Description automatically generated

* When we use a library, we are in charge of the **application flow**, we can choose when and where to call the library.
* When we use a framework, the framework is in charge of the flow. It provides us with a few places to plug in our code, but it calls the code we plugged in as needed.

Usually, a framework tells us what to do. it has the best practice of doing things and provides tooling to support us.

**Examples**: Angular, Vue

Libraries focus only on how to use it, That means using libraries, giving us full control of our application, you only add what you want, which makes the application smoother.

**Examples**: React, jQuery.

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

A **content delivery network (CDN)** refers to a geographically distributed “group of servers” which work together to provide fast delivery of Internet content. A CDN allows for the quick transfer of assets needed for loading Internet content including HTML pages, java script files, stylesheets, images, and videos. Whether we know it or not, every one of us interacts with CDNs on a daily basis :

* when reading articles on news sites
* shopping online
* watching YouTube videos
* perusing social media feeds

CDNs are so widely used to solve the issue of **latency**, it’s the annoying delay that occurs from the moment you request to load a web page to the moment its content actually appears onscreen. The delay duration is impacted by the physical distance between you and that website’s hosting server.

Map

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**How a CDN Works?**

To minimize the distance between the visitors and your website’s server, a CDN stores a cached version of its content in multiple geographical locations. Each PoP contains a number of caching servers responsible for content delivery to visitors within its proximity. In essence, CDN puts your content in many places at once, providing superior coverage to your users.

Map

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4. **Why is React known as React?**

React was developed for applications (Facebook) that have constantly changing data. Since React is a front-end Library or the “View” in MVC, this means that as the user clicks around and changes the app’s data, the view should “react” or change with those user events. User events being mouse clicks, typing, submitting a form.

5. **What is cross origin in script tag?**

* The **crossorigin** attribute on a <script> tag specifies that **CORS** is supported when loading an external script file from a third party server or domain.
* CORS is a standard mechanism used to retrieve files from other domains.
* CORS stands for Cross Origin Resource Sharing - If specified, the script file request will be sent with or without credentials.

6. **What is difference between React and React DOM?**

* React is a JavaScript library for building User Interfaces and React DOM is the JavaScript library that allows React to interact with the DOM.
* React library is responsible for creating views and ReactDOM library is responsible to actually render UI in the browser.

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

* In development mode, React includes many warnings to help in finding problems before they lead to bugs. Doing so, it increases the bundle size and makes the app run slower. The slowdown may be accepted while working on the app locally but we cannot afford this in deployment.
* In development mode React, internally, uses several clever techniques to minimize the number of costly DOM operations required to update UI. Nevertheless, there are several ways we can speed up our React application – production builds being one of them. The production build creates minified bundles, lighter-weight source maps, and optimized assets. This improves the load time.
* React recommends using production mode while deploying the react app. We now know that production build helps in optimizing performance.