**Theory Chapter 01**

**Q: What is Emmet?**

1. Build in feature of vs does not require any installation
2. Provide a shortcut to create HTML elements in vs code. Not only html elements can also create the css also
3. It uses the shorthand / abbreviation and then convert it into the required code
4. For eg HTML elements : div#root>h1.heading while create
5. <div id=’root’>
6. <h1 class=’heading’></h1>
7. </div>
8. Emmet can be used for React .But by default it is not configured for React. Need to configure that.
9. Nesting operator in emmet

* **Child** : To create child use **>** eg: **div>h1**
* **Sibling : + div+div**
* **Climb Up** : **^ header+main>div^footer** – footer will be the sibling of header
* **Mulitplication** : li**\***2 : <li></li><li></li>
* **Item Number** : **$** : To assign unique value
* **Text Formating** : **{}** : div#root{hello react}

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

A: Library is very easy to include in the project as compared to framework. Framework has everything which is required for an application and no need for any other library or package but in library we need other packages/library to develop an application. For eg React is a library but to make a complete app using react we need other lib like for routing, for state management etc. Angular is framework, it comes with all the code/modules required to build app.

**Q: What is CDN? Why do we use it?**

1. CDN – Content delivery network. CDN is basically is use for the app which has dynamic content
2. It is a network of servers and is based on caching the content from origin server the geographical server which is nearest to the end user or where the request has been generated.
3. Storing the content nearest to user help to reducing the distance it has to travel.
4. Helps in high quality video streaming
5. Good playback experience
6. Seamless download delivery

**Q: Why is React known as React?**

A: React is called react because it reacts to the changes of state and data which is been changed/updated by the user actions in application and it also updates ui in a very efficient way

**Q: What is crossorigin in script tag?**

A:In simple word : crossorigin word is made of cross and origin, url is different form the origin from where the request has made. When one wants to fetch data which is located on an url which is different from the one which we are on currently. For eg if one’s application is running in the url <http://localhost:1234> and wants to fetch data whose url is <http://localhost:8080> or <https://live.website> then crossorigin is required

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

A: **ReactDOM** package provide DOM specific methods that can be used to render data in the HTM DOM or to get outside the React model if you need to. The react-dom package also provides modules specific to client and server apps. This lib has to responsibility for browser

**React** library is used for creating views/components. .It has several isomorphic methods which are used to create components and has nothing to do with the browser

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

**A:**  The main difference between both the files is that prod file is more compressed and has small size compared to the dev one. Dev file is used for dev env and prod file is use for prod env. In dev env we have Source Maps, debugging and often times hot reloading ability in dev builds. The production build, on the other hand, runs in production mode which means this is the code running on your client's machine.

 The production build runs uglify and builds your source files into one or multiple minimized files. It also extracts CSS and images and of course any other sources you're loading with Webpack. There's also no hot reloading included

**Q: What is async and defer?**

**A: Async :** While parsing the HTML when browser encounter a script tag with async keyword in HTML , it will parallel fetch the script file without blocking the HTML parsing . After fetching is completed it stops the parsing of HTML will execute the js file after the execution of js file is completed it ll then continue to parse HTML

**DEFER:**  While parsing the HTML when browser encounter a script tag with defer keyword in HTML , it will parallel fetch the script file without blocking the HTML parsing . After fetching is completed in parallel ,it ll not stops the parsing of HTML and will cont. parsing the HTML after parsing of HTML is completed then js file will execute after that.