**NAMASTE REACT JS**

**Chapter 1 - Inception**

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

**CDN Link** - <https://reactjs.org/docs/cdn-links.html>

1. **What is Emmet?**

* Emmet is a plugin
* Emmet is a shorthand used to write code faster
* Emmet uses different abbreviations and short expressions depending on what's passed, and then dynamically converts the abbreviations into the full code. Emmet is mostly used for HTML, XML, and CSS, but it can also be used with programming languages.

1. **Library V/s Framework?**

* Library: Library is a collection of reusable code along with the pre-defined helper functions, objects, classes, modules that can be used in code.
* Example: React, ReactDOM react-router-dom, express, Lodash, etc.
* Framework: Framework is a set of reusable code and a set of conventions for developing software.
* Example: NodeJS, Next JS, Angular etc.
* The key difference between a library and a framework is => “Inversion of Control”.
* When calling a method from a library, the developer is in control. With a framework, the control is inverted: the framework calls the developer's code.

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

* A CDN is a network of servers that distributes content from an “origin” server throughout the world by caching content close to where each end user is accessing the internet via a web-enabled device.
* The content they request is first stored on the origin server and is then replicated and stored elsewhere as needed.
* By caching content physically close to where a user is and reducing the distance it has to travel, latency is reduced.
* This process also decreases stress on origin servers by distributing the load geographically across multiple servers.

1. **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.

1. **What is crossorigin in 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.

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

* React: <https://cdnjs.com/libraries/react>
* ReactDOM: https://cdnjs.com/libraries/react-dom
* ReactDOM is the glue between React and the DOM.
* Often, you will only use it for one single thing: mounting with ReactDOM.render().
* Another useful feature of ReactDOM is ReactDOM.findDOMNode() which you can use to gain direct access to a DOM element. (Something you should use sparingly in React apps, but it can be necessary.)
* If your app is "isomorphic", you would also use ReactDOM.renderToString() in your back-end code. For everything else, there's React.
* You use React to define and create your elements, for lifecycle hooks, etc. i.e. the guts of a React application.

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

* The development build is used - as the name suggests - for development reasons. You have Source Maps, debugging and often times hot reloading ability in those 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. Source Maps might be included as separate files depending on your webpack devtool settings.

1. **What is async and defer?**

* Async scripts are executed as soon as the script is loaded, so it doesn't guarantee the order of execution (a script you included at the end may execute before the first script file)
* Defer scripts guarantees the order of execution in which they appear in the page.
* Without async or defer, browser will run your script immediately, before rendering the elements that's below your script tag.
* With async (asynchronous), browser will continue to load the HTML page and render it while the browser load and execute the script at the same time.
* With defer, browser will run your script when the page finished parsing. (not necessary finishing downloading all image files. This is good.)
* Defer is always a better alternative to async