Chapter 01 - Inception

Theory -

- What is Emmet?
  Ans : Emmet are template (chunk of code) or bunch of boiler plate code we use repetitively for example creating a default index.html file or default component code code etc
  It is provided by any code editors default or you can get it by using extensions.

- Difference between a Library and Framework?
  Library is a bunch of useful functions we can use to do small action in our whole app or create a whole app with it but it does not provide complete configuration to make a app or a complete platform to make a app whereas Framework provide a complete set of configuration to create a app

  The key difference between library and framework is Inversion of control , while using library developer has control when he needs to call it but while using framework , the developer has to know where he needs to write the code and the framework will execute it.

- What is CDN? Why do we use it?
  Ans : CDN stands for Content Delivery Network is a distributed system of network which holds web contents (html, JS , Images) based on user location it identifies the closest server to him . therefore user receives web content faster

  We use it because
    1. performance
    2. Optimization
    3. Less code in our machine

- Why is React known as React?
  Ans : The name React was given to React because while designing the library it should allow developers to react if the data or state of data is change within the application

- What is crossorigin in script tag?
  Ans : crossorigin is a attribute in a script tag which tells the browser, the called resource is from different resource, if crossorigin attribute is empty, it says the user is anonymous and if user wants his credentials he can pass on the cross origin as well

- What is difference between React and ReactDOM

  Ans : React and React DOM are package

  React package holds the core logic like creating element , functionality , algorithm how react internally works

  React DOM packages takes care of all the dom rendering , manipulation

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- What is the difference between react.development.js and react.production.js files via CDN?

  Ans : The key difference between the development and production js file is that production is optimized and bundled and minified to decrease its size so it can load faster and be lightweight on the browser .

- What is async and defer? - see my Youtube video ;)

'Coding -

- Build your first Hello World program using,
  - Using just HTML

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0"
/>
    <title>Document</title>
  </head>
  <body>
    <h1>hello world</h1>
  </body>
</html>
```

- Using JS to manipulate the DOM

```html
<div id="root">
  <!-- using html hello world    -->
  <!-- <h1>hello world</h1> -->
</div>
<script>
  // using js html hello world
  const heading = document.createElement("h1");
  heading.innerHTML = "Hello World From Javascript";
  const root = document.getElementById("root");
  root.appendChild(heading);
</script>
```

- Using React

```html
<div id="root">
  <!-- using html hello world    -->
  <!-- <h1>hello world</h1> -->
</div>
<!-- <script>
  // using js html hello world
  const heading = document.createElement("h1");
  heading.innerHTML = "Hello World From Javascript";
  const root = document.getElementById("root");
  root.appendChild(heading);
</script> -->
<script
  crossorigin

src="https://unpkg.com/react@18/umd/react.development.js
"
></script>
<script
  crossorigin

src="https://unpkg.com/react-dom@18/umd/react-dom.develo
pment.js"
></script>
```

```
<script>
    const heading = React.createElement("h1", {},
"Hello world from react ");
    const root =
ReactDOM.createRoot(document.getElementById("root"));


    root.render(heading);
</script>
```

- Learn about Arrow Functions before the next class

References:
- https://beta.reactjs.org/apis/react/createElement
- https://www.youtube.com/watch?v=IrHmpdORLu8