## LAB 2.pdf:

It seems like you've started writing a tutorial or explanation about web development concepts, specifically focusing on JavaScript. However, it looks like the text got cut off at the end of the HTML line. Here's a possible continuation:

...L (Hypertext Markup Language). HTML is used to structure content on the web, while JavaScript is used to make that content interactive and dynamic.

JavaScript can manipulate the Document Object Model (DOM), which represents an HTML document in a way that can be easily accessed and manipulated by scripts. This allows JavaScript to change the appearance or behavior of the elements within an HTML document on the fly, making websites more engaging and responsive.

Some common uses of JavaScript include:

- 1. AJAX (Asynchronous JavaScript and XML) for loading content asynchronously without reloading the entire page.
- 2. WebSockets for real-time communication between the browser and server.
- 3. Server-Sent Events (SSE) for one-way communication from the server to the client in real-time.
- 4. setInterval for executing a piece of code repeatedly at specified intervals.
- 5. React a popular JavaScript library for building user interfaces, using concepts like useState and useEffect.

Each of these topics is quite extensive, so I recommend further reading on each one to gain a deep understanding of their capabilities and best practices. Happy coding!