Real time Whiteboard

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Introduction

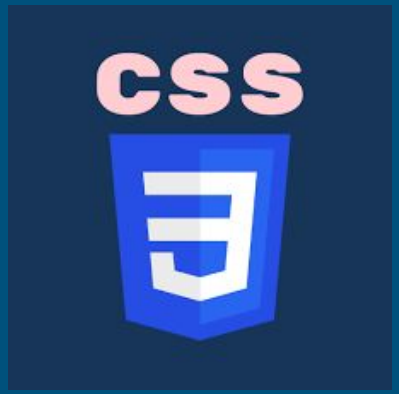
“Real Time Collaborative Whiteboard” is a simple web application that simply helps people to collaborate on various ideas and sketch it out. The users may be Students discussing any study topic, Teachers explaining students through whiteboarding and Professionals sharing their ideas while brainstorming. This whiteboard helps each and every user.

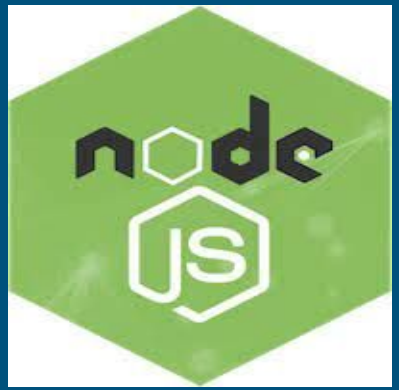
Need for Whiteboard :

- Teaching and learning: Collaborative whiteboards are useful for online teaching and learning, as teachers can create and share visual aids, while students can collaborate and share their work with each other.
- Idea generation: Collaborative whiteboards can be used to generate new ideas and innovations, as participants can build on each other's ideas and create something new and innovative.
- Project management: Collaborative whiteboards can be used to manage projects, from assigning tasks and deadlines to tracking progress and discussing issues.

Tech Used :

- Frontend : bootstrap
  - HTML, CSS, Bootstrap
- Backend :
  - Modules : socket.io, express
  - JavaScript
  - NodeJS





Socket.io :

- Socket.io is a JavaScript library that enables real-time, bidirectional communication between clients (typically web browsers) and servers. It's built on top of the WebSockets protocol, but also includes fallbacks for other transport protocols when WebSockets aren't available.
- With Socket.io, you can easily send and receive messages between clients and servers in real-time. This makes it great for building applications that require real-time updates, such as chat apps, multiplayer games, and collaboration tools.

Pseudocode :

Pseudo Code for connecting multiple users on the whiteboard to collaborate

START

Load the Browser Window properly.

Get the Canvas element from DOM.

Create the Context so that we are able to draw on the canvas.

Add Event listeners to mouse that helps us to Draw and Stop while our mouse pointer is on canvas.

Emit the changes to other users in the room and until the connection is on, the users can see the sketches that are done on the canvas.

END

Conclusion :

I would like to conclude that it was amazing experience while making this project. Though some of the things were tough to achieve and implement but finally it has been a great learning.

I was able to make the web app look pretty good and decent as possible by keeping in mind various things like Colour Combinations, Fonts, etc. The main objective of making this project easy to use and useful is achieved so far.

Reliability was also one of the objectives that I was trying to provide to users.

At the end, I can say that my web application is “Useful for People”

Thank You

For being a good listener…