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Synopsis

on

REALTIME OPEN BOARD APPLICATION

Submitted by

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ABSTRACT

Meetings and classrooms demand the presence of the person in the room if he wants to participate. A tool widely used in such places is a whiteboard. A whiteboard has limited creativity and interactivity options and hence it needs to be replaced with better tools.In this paper we develop a web application to increase collaboration without restricting him to any location, operating system platform or device. Our application allows users to interact and share information via drawings, images, chat, audio and video. They can create individual rooms and share the room id with only certain people. Users only need access to web browsers and internet to make use of the application. There is no limit on the number of users allowed to participate and no plug-in needs to be downloaded. We have implemented this system by using HTML5, Node.js and WebSocket. WebSocket support concurrency in real-time transmission of information. All the users can simultaneously interact with the system. The experimental results demonstrate the high scalability of our system. As evident from the experiments, the response delay is extremely low.

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INTRODUCTION

Traditional whiteboards and blackboards are extensively used in offices, colleges and schools. It is used to display information on a board using markers and chalks. A person using a whiteboard is free to draw different types of shapes. Physical whiteboards are inconvenient as it does not allow everyone present in the room to present their ideas simultaneously.

TECHNOLOGIES USED

The technologies used for developing this project are:

1.HTML: Design the structure of UI and tool functionalities

2.NODE JS: It is a server-side JavaScript environment based on Google's runtime engine, "V8" engine. Node server process is single-threaded.

3.JAVA SCRIPT:It is an object-oriented language where programmers can create and delete their own objects. It can interact with HTML source code

4.CSS: Describing the presentation of Web pages, including colors, layout, and fonts.

SOFTWARE REQUIREMENTS

Software environment used for developing the application:
- Operating System – Windows 7/11 or LINUX,MAC or above.
- Code Editor – Microsoft Visual Studio Code
- Web Service

HARDWARE REQUIREMENTS

Hardware components required for installing all the required software environment and tools are:
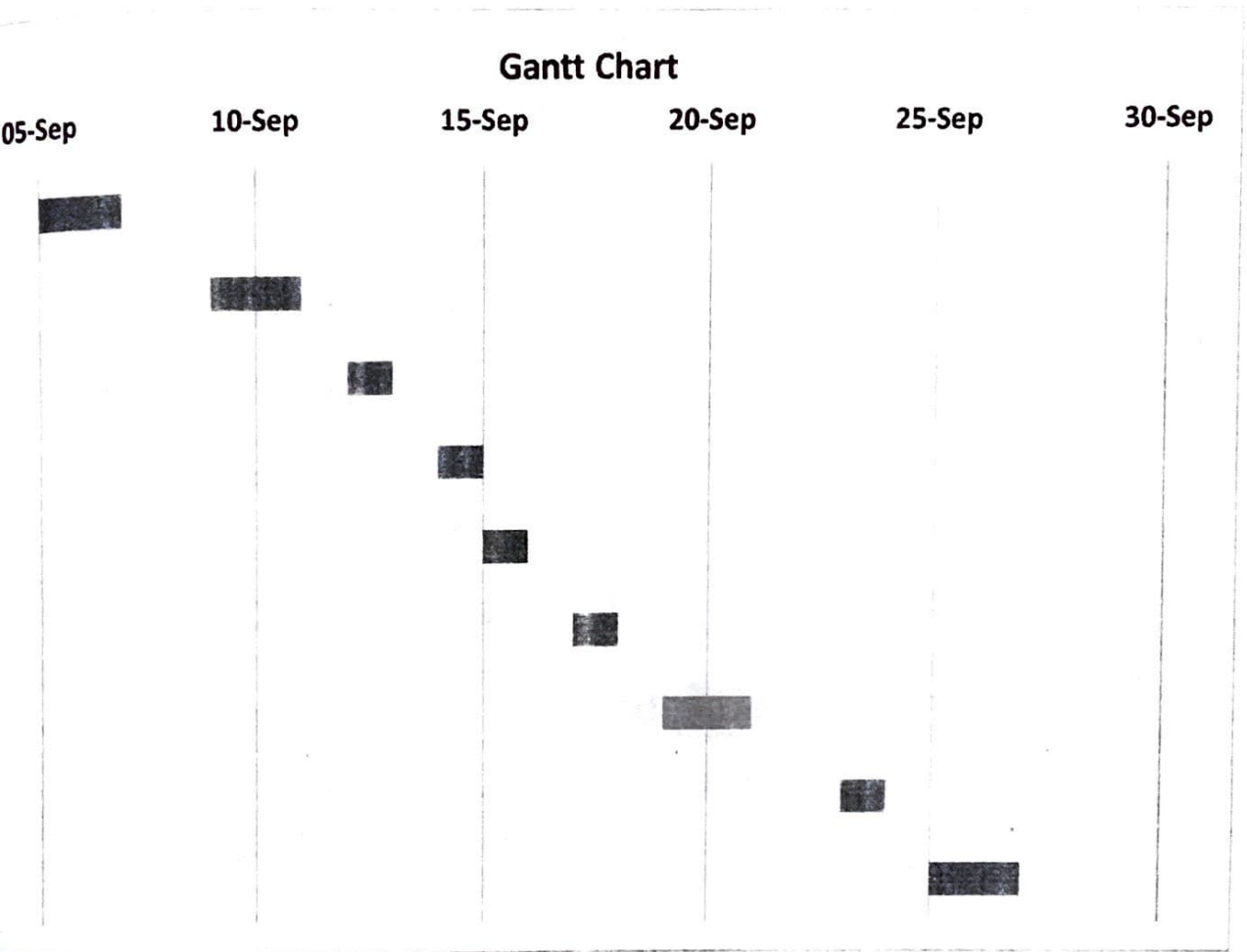
- Processor – Intel i3 5th generation or higher
- RAM – Minimum 4 GB, recommended 8 GB
- Disk space - Minimum 10 GB of free disk space

MODULES IN PROJECT

The modules present in the application are:

1.ADMIN

2.UPDATE

3.ADMIN LOGIN

4.SOCKET IO

5.API(CANVAS API)

GANTT CHART

Gantt Chart

05-Sep	10-Sep	15-Sep	20-Sep	25-Sep	30-Sep

CONCLUSION

we design and implement a new method to build collaborative web applications . The outcome derived from testing this application has shown that the response delay is extremely low. As the delay is in few milliseconds, the user experiences an instant display of information and hence high level of synchronization is attained.

In future, we plan to analyze the effect on memory consumption. We would also like to allow users to view and edit documents and presentations online.