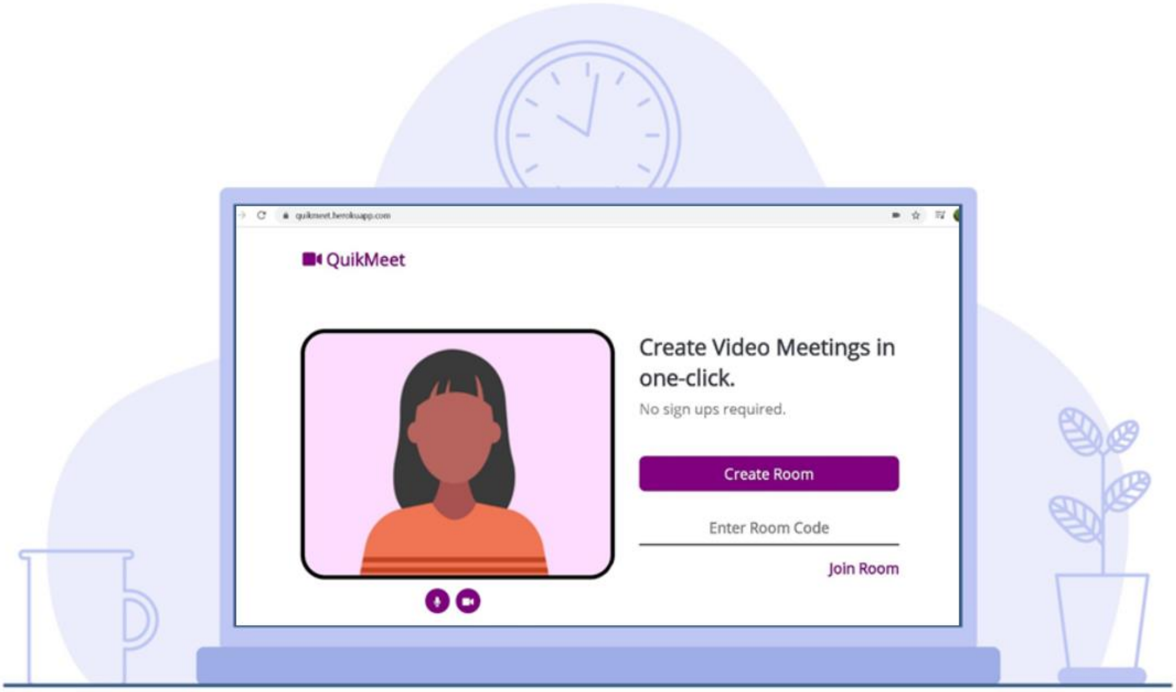
QuikMeet

Video Call and Chat



Create Video Meetings in one-click.

No sign ups required.

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INTRODUCTION

QuikMeet is a real time communication service that allows group video calls and group chat. The web app has simple and user friendly interface. QuikMeet is an open source platform and can be used to schedule quick meetings that do not require any authentication.

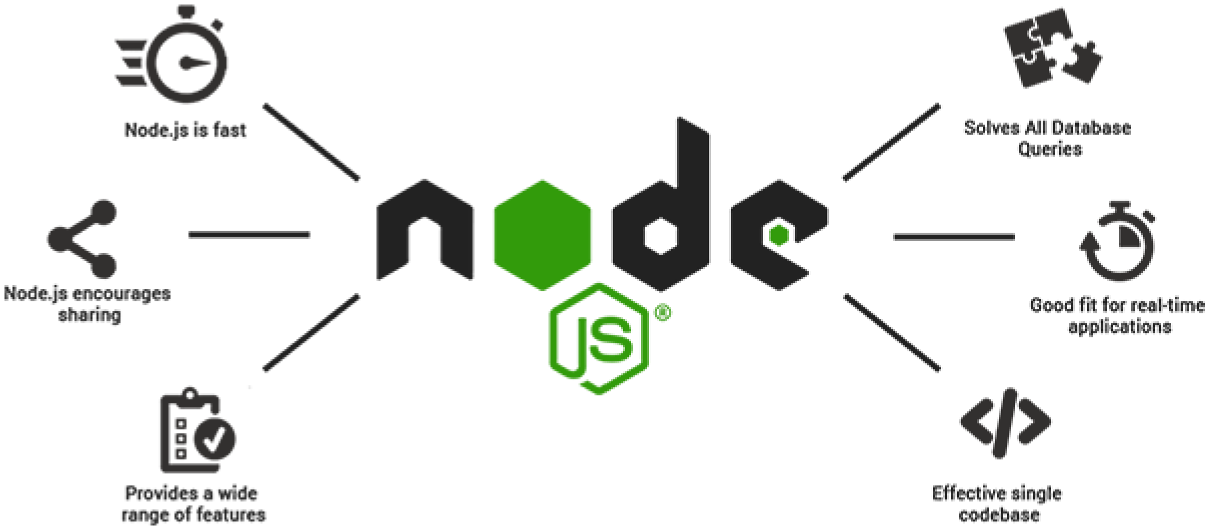
TECH STACK USED

The Tech Stack used in this project is :

- Node.js
- WebRTC
- WebSocket (socket.io)

Node.js

Node.js is a free, open-sourced, cross-platform JavaScript run-time environment that runs on the V8 engine and lets developers write command line tools and server-side scripts outside of a browser.

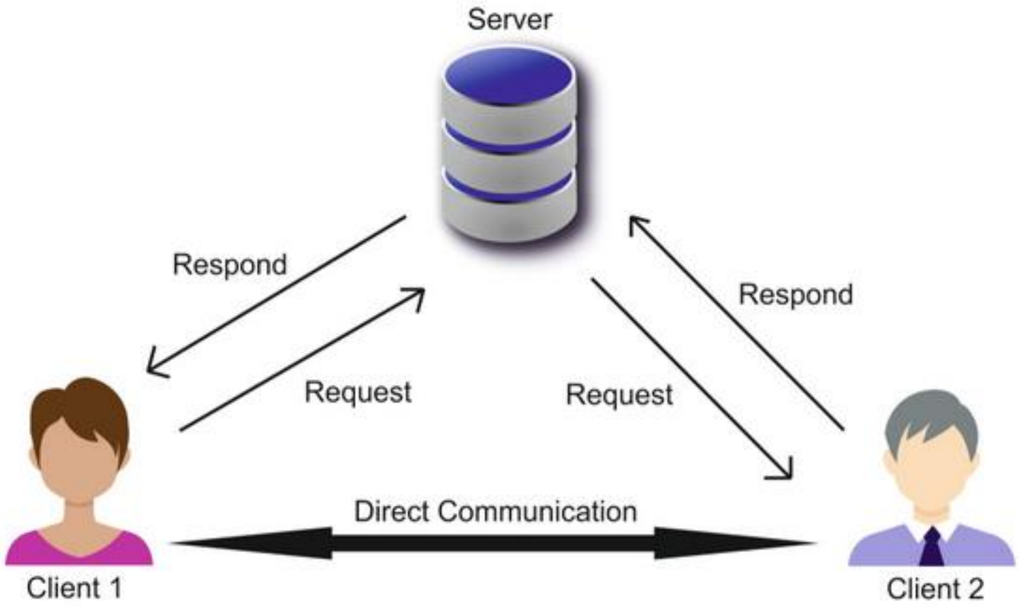

Node.js is fast
Node.js encourages sharing
Provides a wide range of features
node
JS
Solves All Database Queries
Good fit for real-time applications
Effective single codebase

WebRTC

WebRTC is an open source project can add real-time communication capabilities to your application that works on top of an open standard. It supports video, voice, and generic data to be sent between in Web and native apps.

WebRTC has several JavaScript APIs — click the links to see demos.

- getUserMedia(): capture audio and video.
- MediaRecorder: record audio and video.
- RTCPeerConnection: stream audio and video between users.
- RTCDataChannel: stream data between users.



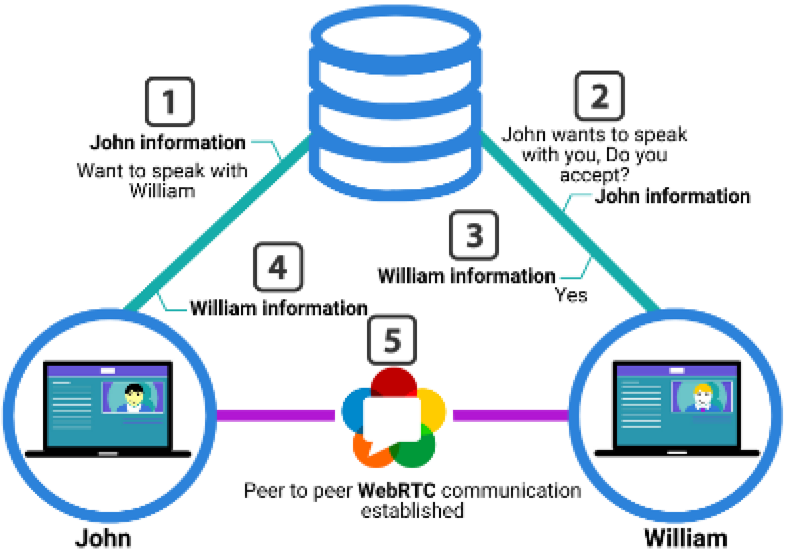
WebRTC Working

Socket.io

Socket.IO is a library that enables real-time, bidirectional and event-based communication between the browser and the server. It consists of:

- a Node.js server:
- a Javascript client library for the browser (which can be also run from Node.js)

The bidirectional channel between the Socket.IO server (Node.js) and the Socket.IO client (browser, Node.js, or another programming language) is established with a WebSocket connection whenever possible, and will use HTTP long-polling as fallback.


1
John information
Want to speak with William
2
John wants to speak with you, Do you accept?
John information
3
William information
Yes
4
William information
5
Peer to peer WebRTC communication established
John
William

Project Roadmap

Week 1

- Designing the Web App
- Exploring various real time communication services like WebRTC, Azure Communication services etc.
- Deciding on the basic features of the app

Week 2

- Created rooms with unique room id
- Implemented the basic required feature of two participants connecting via the app to have a video call.
- Added a leave button to leave the room

Week 3

- Added a mute button to turn off the audio and a Video Off button to turn off the video
- Added a home page in the web app which streams the user's video. The home page has an option to either creating a new meeting or joining an existing meeting.
- Implemented a 'Copy Code' button to copy the unique room id to the clipboard to send it to other users

Week 4

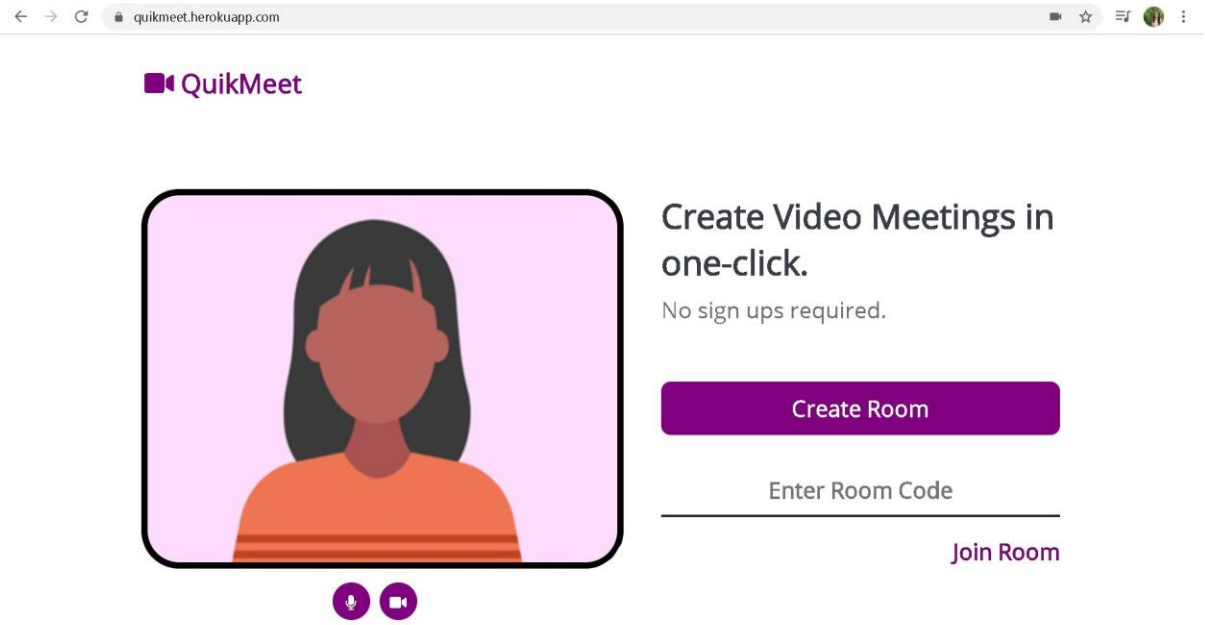
- Added a dialog box to get the user's name before entering the room
- Implemented the group chat feature. Used moment.io to display time along with the message sent
- Added bot feature in chat that displays message when a user joins or leave the room
- Implemented a collaborative whiteboard
- Worked on enhancing the UI of the app

Features

- No sign ups required
- Create new room or join an existing room
- Join and leave room
- Switch on/off audio and video
- Group video meeting
- Group chat
- Display user name
- Bot text messages on user leaving/joining room
- Display time at which text message is sent
- Copy room code
- Collaborative whiteboard
- Simple and user friendly interface

Web App Interface

Home

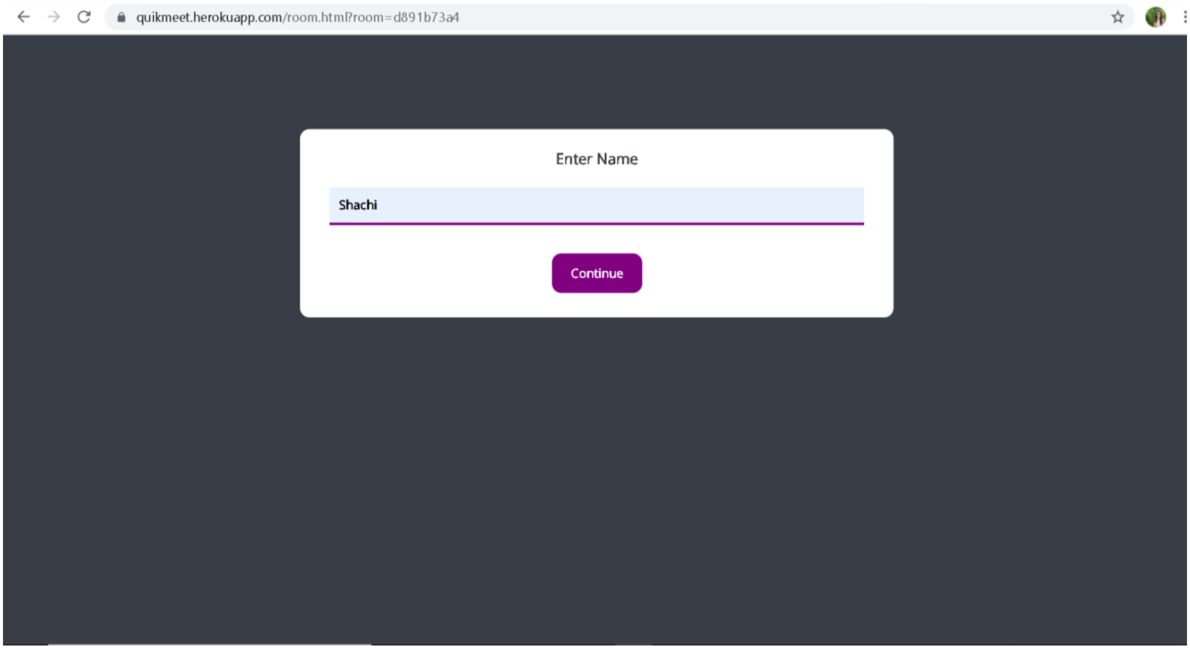


quikmeet.herokuapp.com

Create Video Meetings in one-click.

No sign ups required.

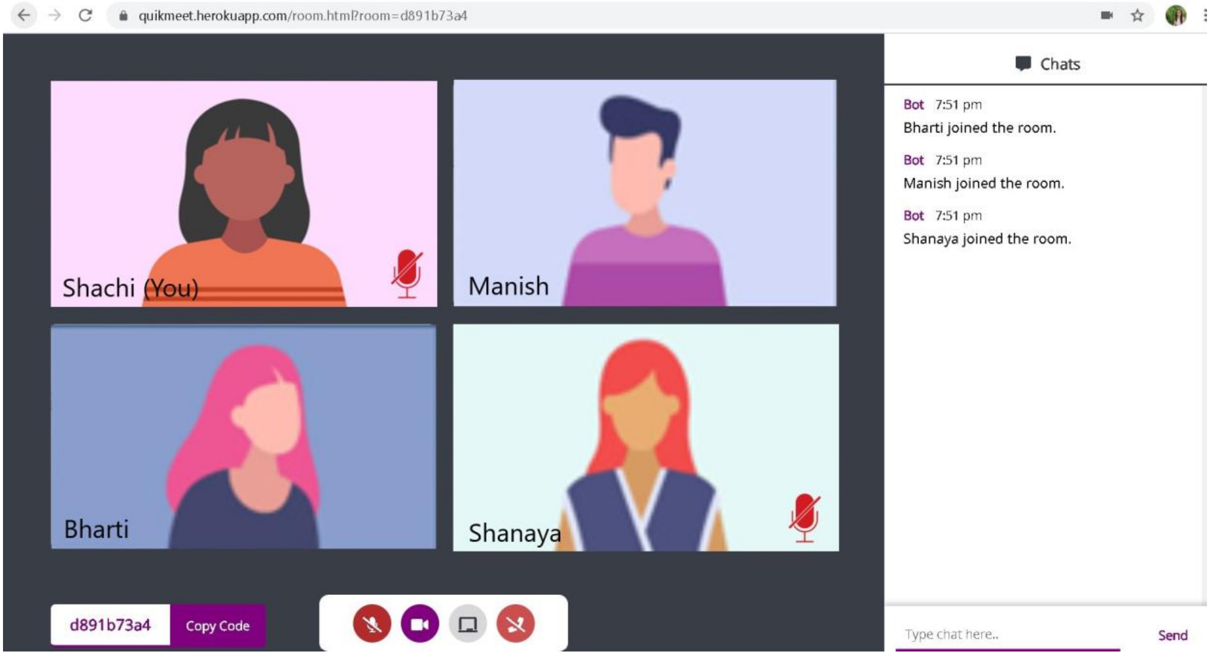
Dialog Box to get user name



quikmeet.herokuapp.com/room.html?room=d891b73a4

Enter Name: Shachi

Unique Room – Group video Call and Chat

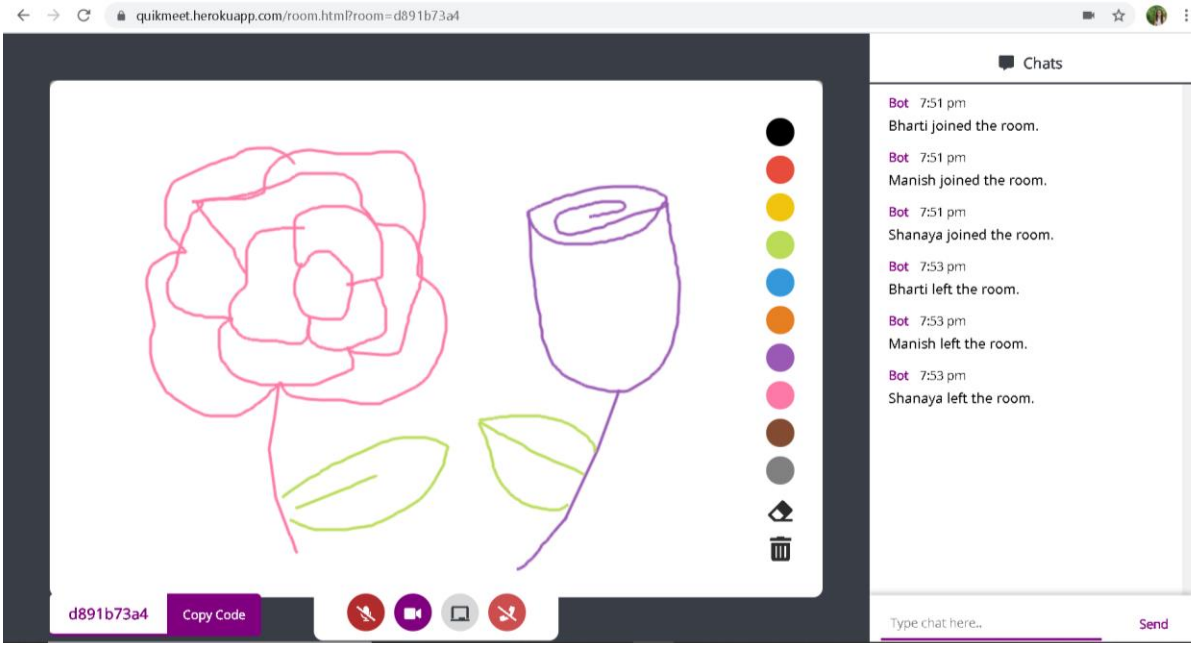


Bot 7:51 pm
Bharti joined the room.

Bot 7:51 pm
Manish joined the room.

Bot 7:51 pm
Shanaya joined the room.

Collaborative Whiteboard



Bot 7:51 pm
Bharti joined the room.

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Bot 7:53 pm
Bharti left the room.

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