

Project Report

On

Gap-Shap

(A Web Chat Application)

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SVVV, Indore

CERTIFICATE

This is to certify that Mr.Chaitanya Galande and Mr. Chinmay Tare working in a group have satisfactorily completed the project titled “**Gap Shap- The Chat Application**” towards the partial fulfillment of the degree in Bachelor of Engineering (Information Technology) Awarded by Shri Vaishnav Institute of Information Technology, SVVV, Indore for the academic year 2020-21

Project Guide

Mr. Debojyoti Majumdar

Ardent Technologies

Kolkata

Signature

ACKNOWLEDGEMENT

The success and outcome of this project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along with the completion of my project. All that I have done is only due to such supervision and assistance and I would not forget to thank them.

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I am thankful for and fortunate enough to get constant encouragement, support and guidance from all Teaching staff of Information Technology which helped us in completing our project work.

My thanks and appreciations also go to my colleague in developing the project and people who have willingly helped me out with their abilities."

Chaitanya Galande

Chinmay Tare

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1.1Introduction

Communication is a mean for people to exchange messages. It has started since the beginning of human creation. Distant communication began as early as 1800 century with the introduction of television, telegraph and then telephony. Interestingly enough, telephone communication stands out as the fastest growing technology, from fixed line to mobile wireless, from voice call to data transfer. The emergence of computer network and telecommunication technologies bears the same objective that is to allow people to communicate. All this while, much efforts has been drawn towards consolidating the device into one and therefore indiscriminate the services. Chatting is a method of using technology to bring people and ideas together despite of the geographical barriers. The technology has been available for years but the acceptance it was quit recent. Our project is an example of a chat server. It is made up of applications the client application which runs on the users mobile and server application which runs on any pc on the network. To start chatting our client should get connected to server where they can do Group and private chatting.

1.2.Abstract

Teleconferencing or Chatting, is a method of using technology to bring people and ideas together despite of the geographical barriers. The technology has been available for years but the acceptance it was quit recent. Our project is an example of a chat server. It is made up of 2 applications the client application, which runs on the user's Pc and server application. To start chatting client should get connected to server where they can practice group chatting, i.e. public one (message is broadcasted to all connected users)

2. Problem Statement

This project is to create a chat application with a server and users to enable the users to chat with each others. To develop an instant messaging solution to enable users to seamlessly communicate with each other. The project should be very easy to use enabling even a novice person to use it.

3.Methodology:

- The user interacts with the Web Application using a browser.
- The user needs to enter his name .
- As soon as a new user joins ,all the users in the chat would be informed
- If a user leaves the chat,all the active users will be informed.

4.Design Considerations Approach:

The tool has been designed using NodeJS and Socket programming .

Html ,CSS and Javascript have also been used

5.Technologies Used:

Technology (Programming language)

Client Side Coding

1. HTML
2. CSS
3. JAVASCRIPT

Server Side Coding

1. NODE

6.Tools Used

Enviroment

- Visual Studio Code

VS Code provides an editor for Angular,CSS, HTML and
JavaScript with on-the-fly code analysis

- Microsoft Chrome Browser

For testing purpose of website

7.Hardware requirements

In hardware requirement we require all those components which will provide us the platform for the development of the project. The minimum hardware required for the development of this project is as follows

- Ram- minimum 128 Mb
- Hard disk—minimum 500Mb

- Processor- Pentium 3
- Web Browser
- Display Device: 14' to 19' InchMonitor
- Keyboard Type: PS2 or USB
- Mouse Type: PS2 or USB

These all are the minimum hardware requirement required for our project. We want to make our project to be used in any. Type of computer therefore we have taken minimum configuration to a large extent.128 MB ram is used so that we can execute our project in a least possible RAM.5 GB hard disk is used because project takes less space to be executed or stored. Therefore minimum hard disk is used. Others enhancements are according to the needs.

8. Software requirements

Software's can be defined as programs which run on our computer .it act as petrol in the vehicle. It provides the relationship between the human and a computer. It is very important to run software to function the computer.

Various software's are needed in this project for its development.

Which are as follows-

Operating system—Windows 7

Others—Visual Studio

9.Source Code (For Reference) :

Client.js(Socket.io programming)

```
const socket = io('http://localhost:8000');

const form = document.getElementById('send-container');

const messageInput = document.getElementById('messageInp')

const messageContainer = document.querySelector(".container")

var audio = new Audio('sms_notification.mp3')
```

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```
const append = (message, position)=>{ //jo naya join hoga uski notification aaegi in the form of message
```

```
    const messageElement = document.createElement('div');
```

```
    messageElement.innerText = message;
```

```
    messageElement.classList.add('message'); //show message
```

```
    messageElement.classList.add(position); // show new user's position(left,right)
```

```
    messageContainer.append(messageElement);
```

```
    if(position == 'left'){
```

```
        audio.play();
```

```
    }
```

```
}
```

```
form.addEventListener('submit', (e)=>{
```

```
    e.preventDefault();
```

```
    const message = messageInput.value;
```

```
    append(`You: ${message}`, 'right')
```

```
    socket.emit('send', message);
```

```
    messageInput.value = "
```

```
})
```

```
const name = prompt("Enter your name to join");
```

```
socket.emit('new-user-joined', name) // new name will be accepted and executed by socket.on and will be displayed
```

```
socket.on('user-joined', name=>{
```

```
    append(`${name} joined the chat`, 'right')
```

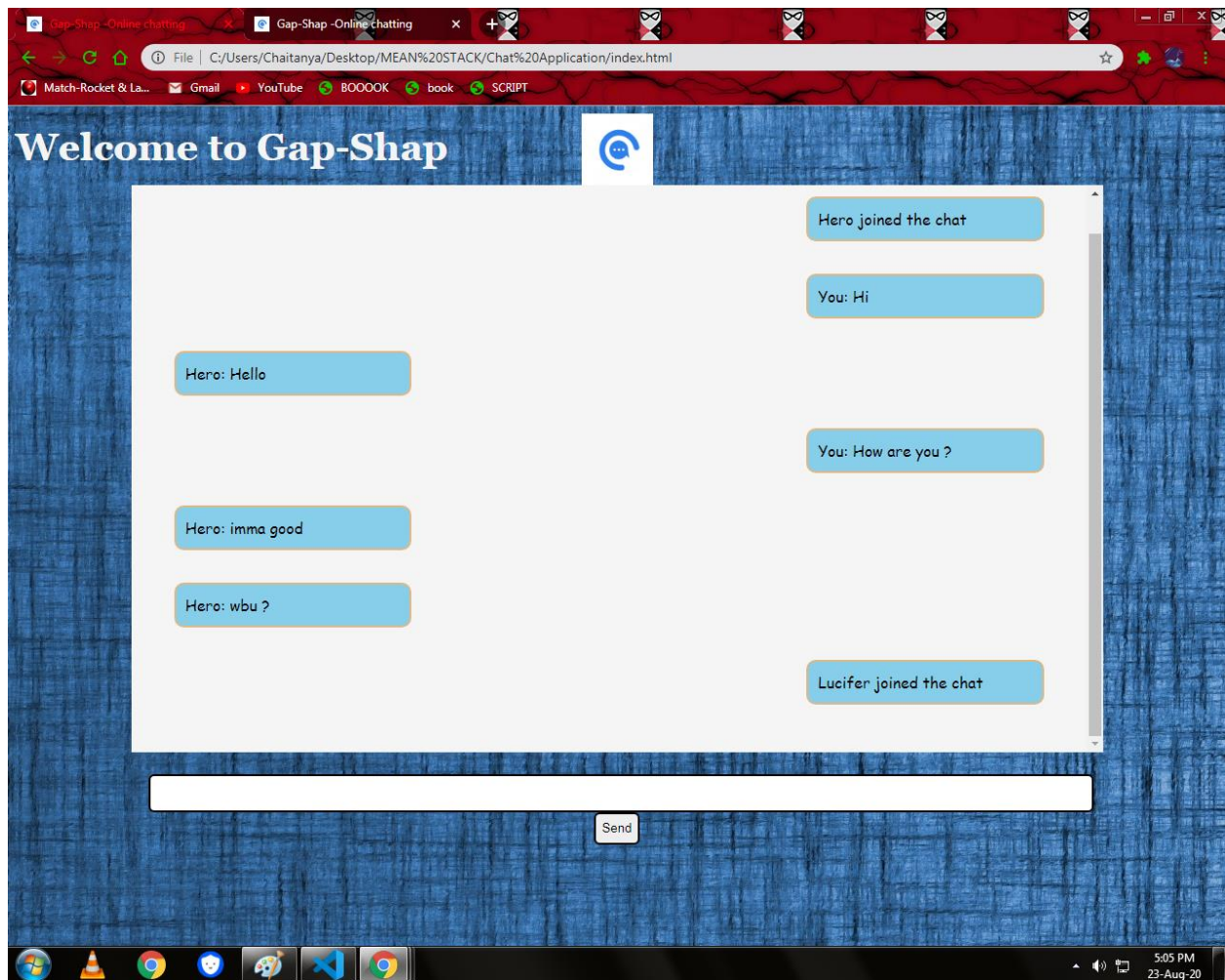
```
})
```

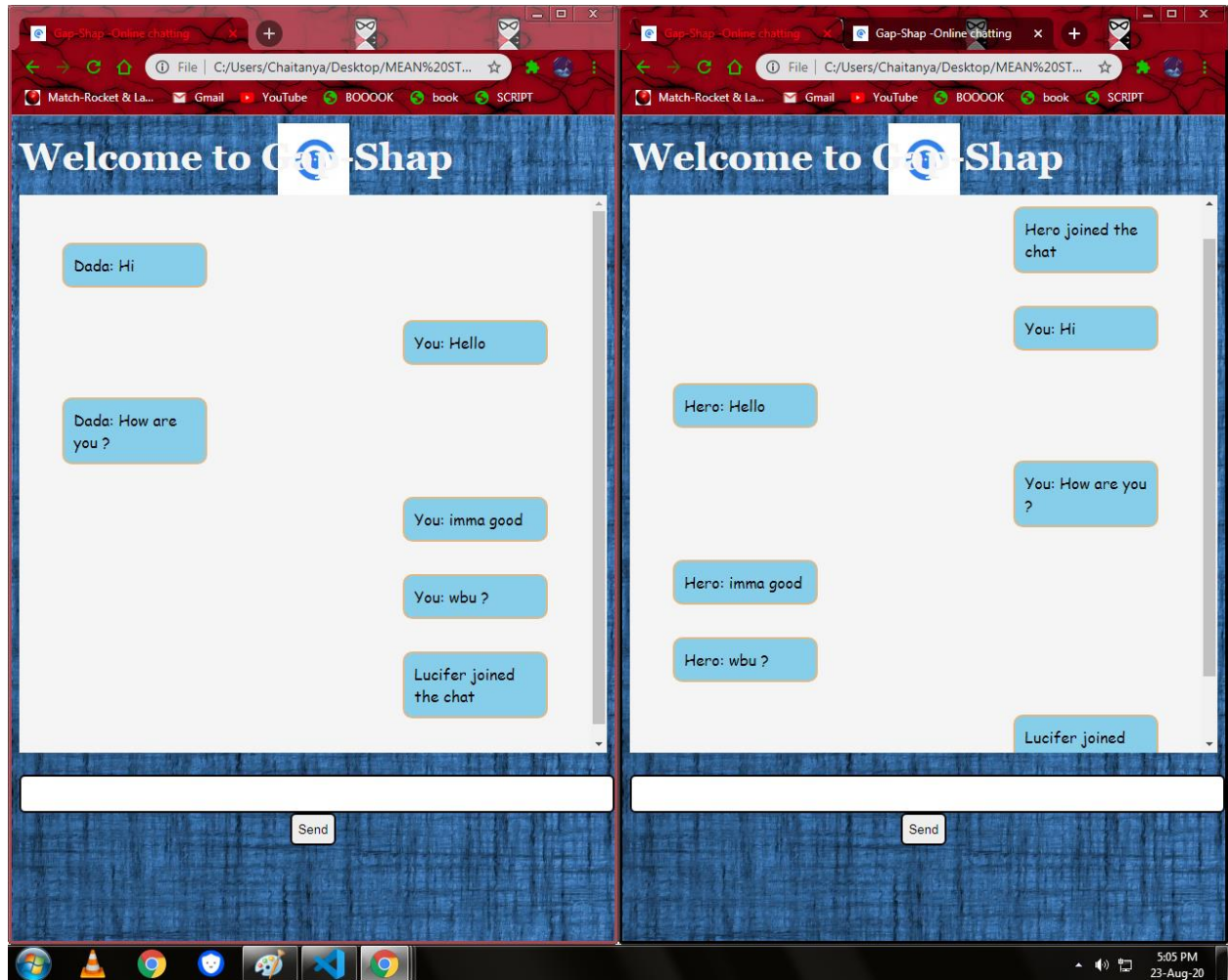

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```
socket.on('recieve', data=>{  
    append(`${data.name}: ${data.message}`, 'left')  
})
```

```
socket.on('left', name=>{  
    append(`${name} left the chat`, 'left')  
})
```

10. Screenshots :





11.Constraints and Limitations

This app doesn't have video and audio calling system . We may add it in later version.

Also, you cannot limit the no of users that can join since it is a group chat communication system.

12.Contribution In The Project

A project is successfully completed only when there is contribution of all the members of a team. Each member in the project has a required objective to accomplish .In same way to complete this project we divided our work in equal manner .Instead of selecting a particular task to do individually, we divided a single task in multiple subtasks so that we all can work together on the same phase or task of the project. Doing so no team member had to wait to show his capabilities.

13.Conclusion

There is always a room for improvements in any apps. Right now we are just dealing with text communication. There are Web apps which serve similar purpose as this project, but these apps were rather difficult to use and provide confusing interfaces. A positive first impression is essential in human relationship as well as in human computer interaction. This project hopes to develop a chat service Web App with high quality easy user interface. In future we may be extended to include features such as:

1. Voice Message
2. Video Message
3. Group Call