

# REAL TIME CHATTING APPLICATION

## Project Report

Major Project (IMW651)

Degree

**BACHELOR OF COMPUTER APPLICATION**  
(Mobile Application and Web Technology)

PROJECT GUIDE:

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**FACULTY OF ENGINEERING & COMPUTING SCIENCES**  
**TEERTHANKER MAHAVEER UNIVERSITY, MORADABAD**

## **ACKNOWLEDGEMENT**

We would like to express my special thanks to my guide teacher **Mr. Sanjeev Soni** who gave us the golden opportunity to do this wonderful project of python language project on the topic “**Real Time Chatting Application**”. We come to know about so many things in this project. We are really thankful to our guide teacher.

**Place: Teerthanker Mahaveer University (Moradabad)**

**Date: 01/03/2024**

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## **DECLARATION**

We hereby declare that this Project Report titled **Real Time Chatting Application** submitted by us and approved by our project guide, the College of Computing Sciences and Information Technology (CCSIT), Teerthanker Mahaveer University, Moradabad, is a bonafide work undertaken by us and it is not submitted to any other University or Institution for the award of any degree diploma / certificate or published any time before.

**Student Name:** Bhuvnesh Saini , Keshav Saini

Signature

**Project Guide:** Mr. Sanjeev Soni

Signature

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### A: Data Flow Diagram (DFD)

### B: Screen Shots

## 1 Project Title

The project title is '**REAL TIME CHATTING APPLICATION**'. The main objective of this project is to allow each and every person can get connected to each other, like a normal chat application. It's a web-based application and it is the real time chatting application. It manages the details of the Chat user, Chat history.

## 2 Domain

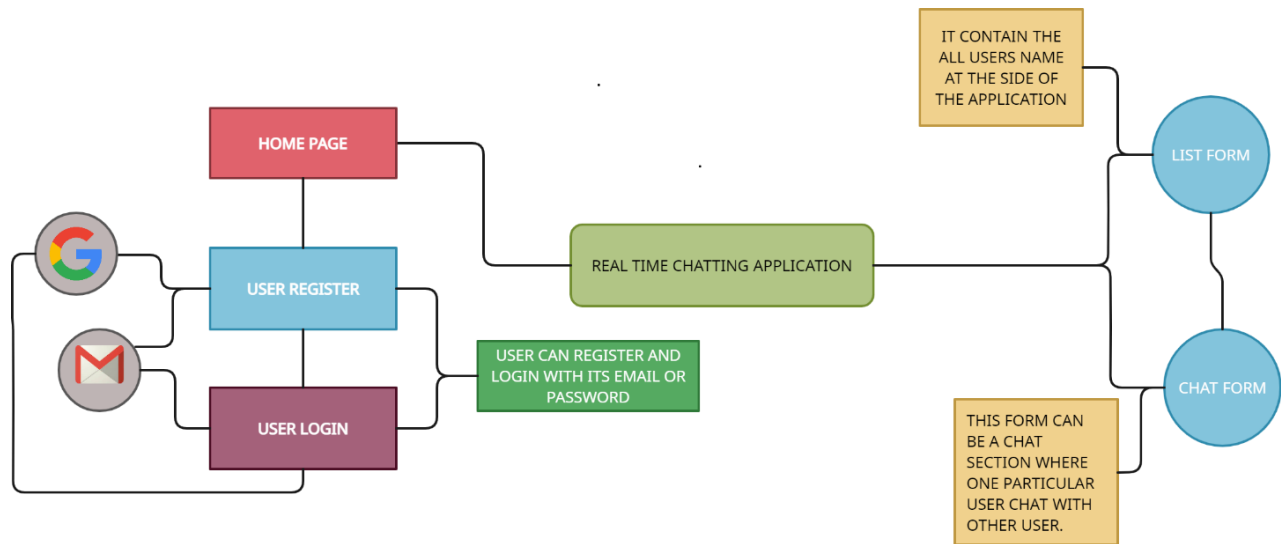
*REAL TIME CHATTING APPLICATION (Web Technology)*

## 3 Problem Statement

This project is to create a chat application with a server and users to enable to users to chat with each other easily. The project should be very easy to use even a novice person can use it. Chat application has become a popular way for n-way conversation or discussion among people. Chat applications range from simple, text-based.

## 4 Project Description

As mentioned earlier, this project is used to support the users to chat with the others users easily.



**Context Diagram**

#### **4.1 Scope of the Work**

The application is designed as a web-based application. It provides a general architecture for chat applications, and anyone or organization can use it as the basis for providing instant messaging capabilities. This application will be made in Reactjs library of JavaScript which is used to make a single page web application so its means the application will respond fastly and the data of the users or users chat will be stored securely in the database and the access of manage the data is only provided to the admin of the application,

#### **4.2 Project Modules**

The project will contain the following modules:

1. Designing UI -- In this module, the main focus is to develop the UI part of the application by which user interacts.
2. User Registration and Login – In this module, all the authorization and authentication process done
3. Text message sending – In this module, I will work on the message sending process.
4. Images and Emoji sending – As the name suggests, in this module, I have to work on sending images and emoji to the users.
5. Chat History module— In this module, I mainly focus on how to store the chat of every user.





## 6 Technologies to be used

The following technologies are utilized for this project. This list may change as need for more features/improvements arises in the future.

### 6.1 Software Platform

#### a) Front-end

- HTML, CSS
- Bootstrap/Tailwind CSS
- Reactjs (Framework)

#### b) Back-end

- Nodejs
- Socket.io

#### c) Database

- Firebase/ MongoDB

### 6.2 Hardware Platform

- 4 GB RAM
- 500gb Hard Disk,
- Windows 10,
- Google Chrome v105.0.5195.

### 6.3 Tools

During the planned development phase, the main tool is **VS Code v1.71** by Microsoft used as an editor for quick and precise development of the project.

## 7 Advantages of this Project

The main advantages of this project are:

- Speed in usage.
- No possibility of lose the data.
- Easy and friendly UI.
- Privacy Protection.
- Firebase database is used in it so it is easy to deploy the application.

## 8 Future Scope and further enhancement of the Project

With the knowledge I have gained by developing this application, I am confident that in the future I can make the application more effectively by adding this service.

- We can implement the backup mechanism for taking backup of chat of every user on the regular basis.
- We can give more advance software of Online Chat application with more facilities.
- Integrate multiple load balancers to distribute the loads of the system.
- We can use other technologies to make the application faster or decrease the load time.

## 9. Project Repository Location

S#	Project Artifacts (softcopy)	Location (Mention Lab-ID, Server ID, Folder Name etc.)	Verified by Project Guide	Verified by Lab In-Charge
1.	Project Synopsis Report (Final Version)		Name and Signature	Name and Signature
2.	Project Progress updates		Name and Signature	Name and Signature
3.	Project Requirement specifications		Name and Signature	Name and Signature
4.	Project Report (Final Version)		Name and Signature	Name and Signature
5.	Test Repository		Name and Signature	Name and Signature
6.	Any other document, give details		Name and Signature	Name and Signature

## 10 Team Details

Project Name & ID	Course Name	Student ID	Student Name	Role	Signature
REAL TIME CHATTING APPLICATION	Major Project	TCA2055002	Bhuvnesh Saini	Designing, Front-end	
		TCA2055002	Keshav Saini	Back-end Development	

## 11 Conclusion

The main objective of the project is to develop a Secure Chat Application. I had taken a wide range of literature review in order to achieve all the tasks. We've seen that making "Real Time Chat Application" is quite interesting thing and new thing to make other than making a website about a product or any portfolio. In Today's world chat application is in much demand & needed around everywhere and its reducing our much problem and time, with the help of the chat application we can just send the same message to many users at a time and we don't need to call every time to anyone for any type of queries or problem, we can just message them.

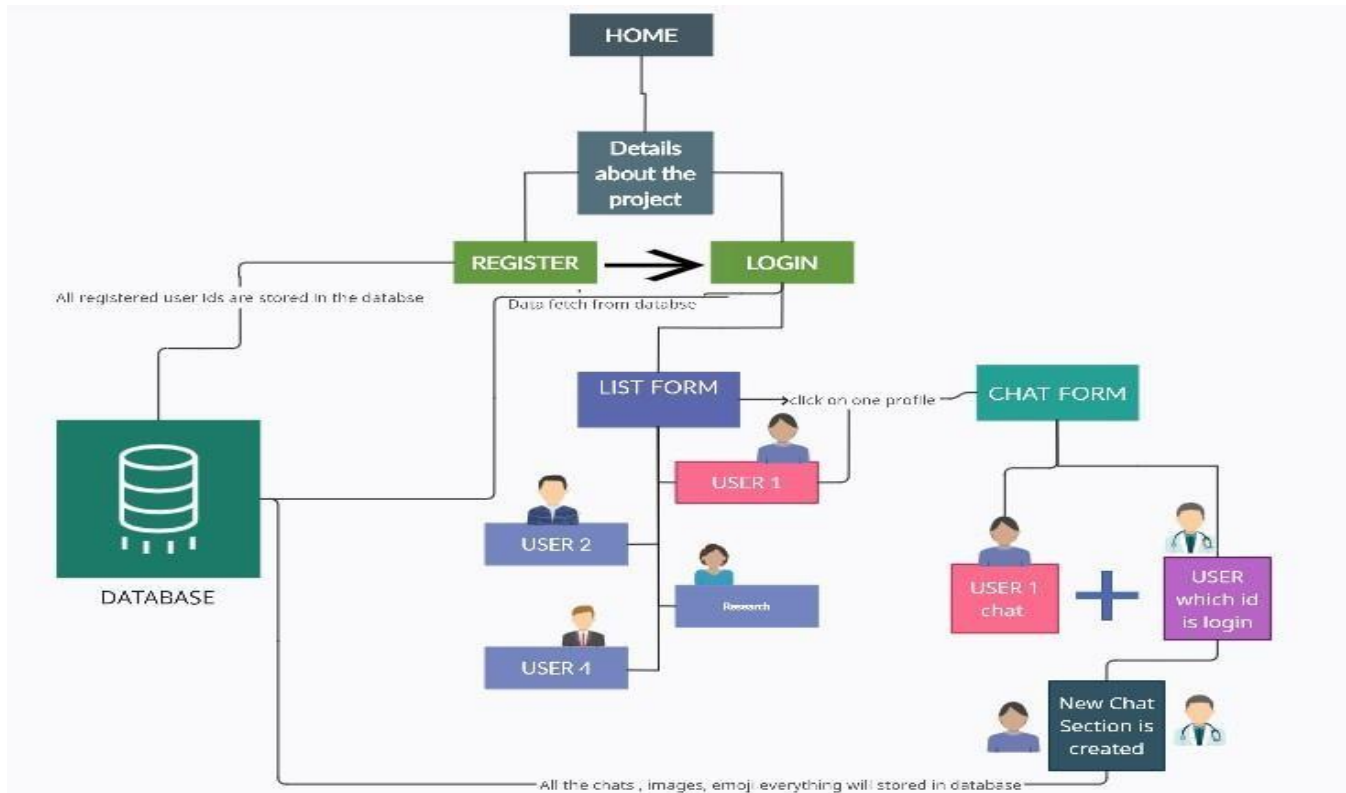
## 12 References

1. YouTube -- links for the videos for some queries.
2. Google for problem solving.
3. <https://creatly.com/> -- This website is used for making the data flow diagram and context diagrams.

## Annexure A

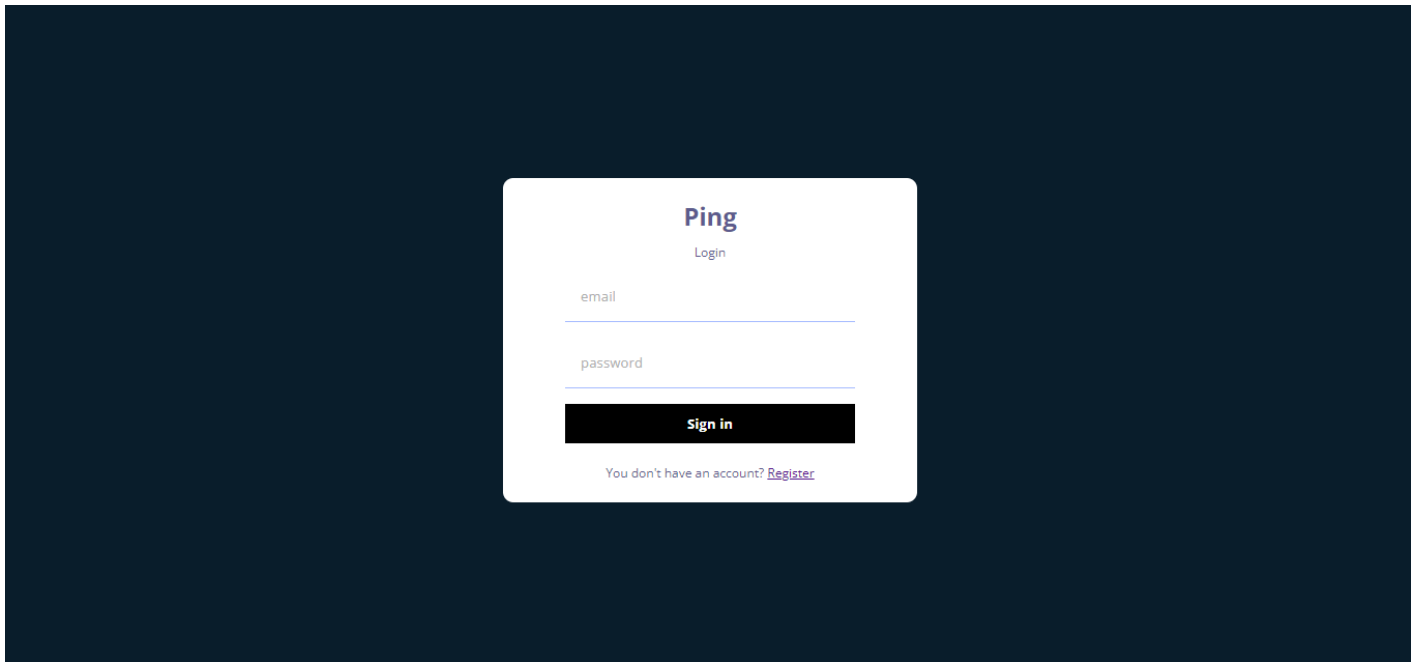
### Data Flow Diagram (DFD)

(Mandatory)

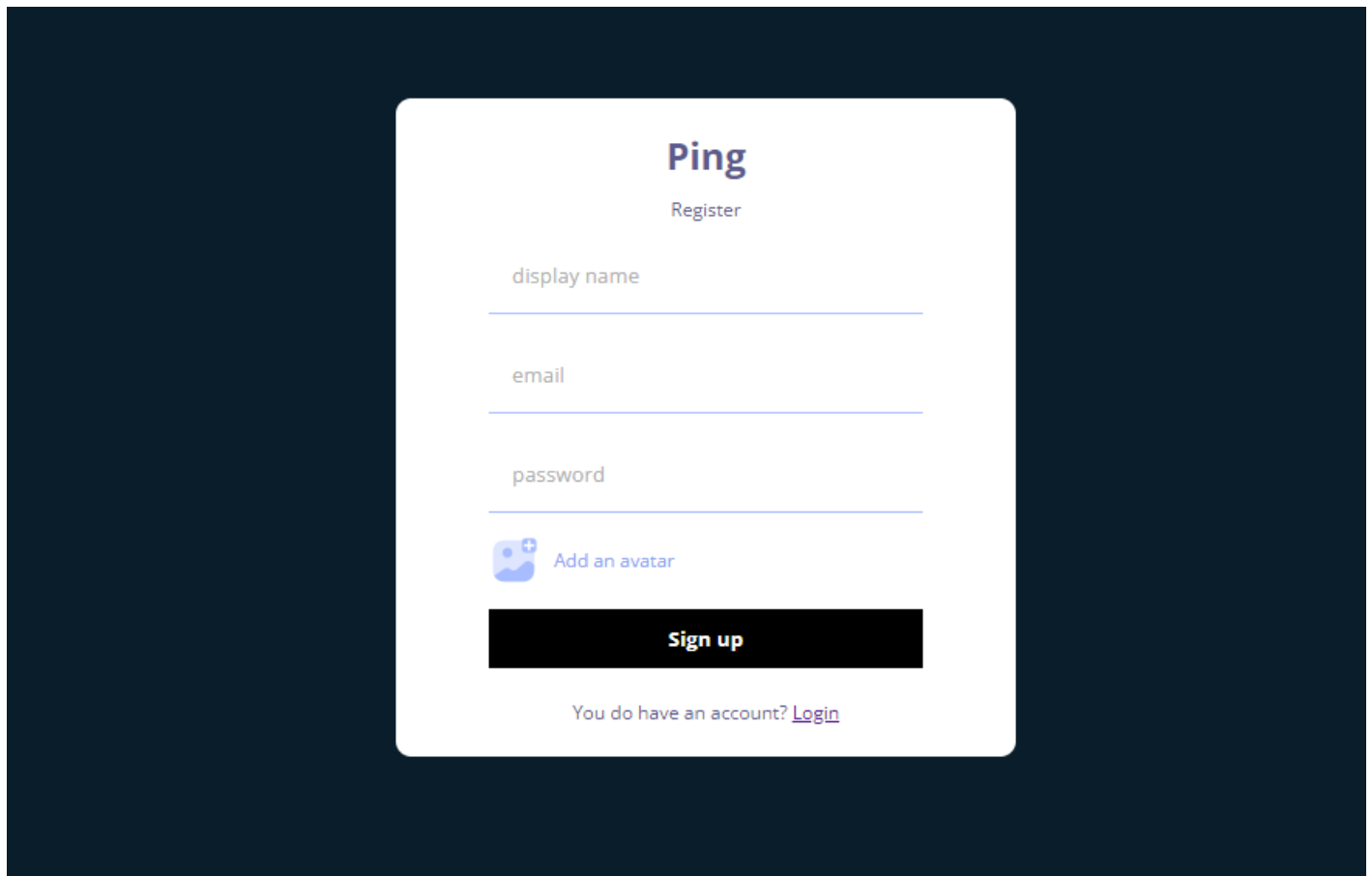


## Annexure B Screen Shots

Login Page: -

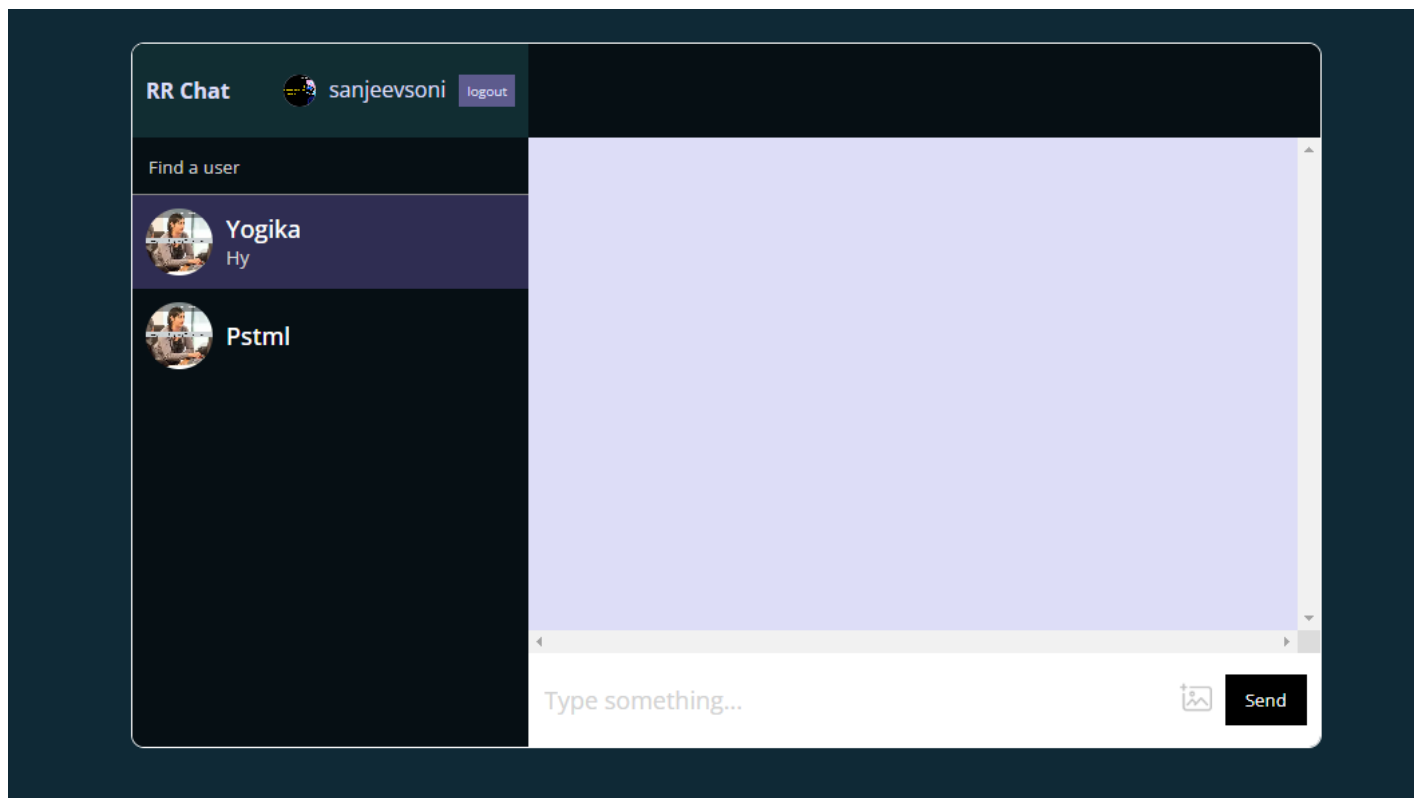


## Register Page : -

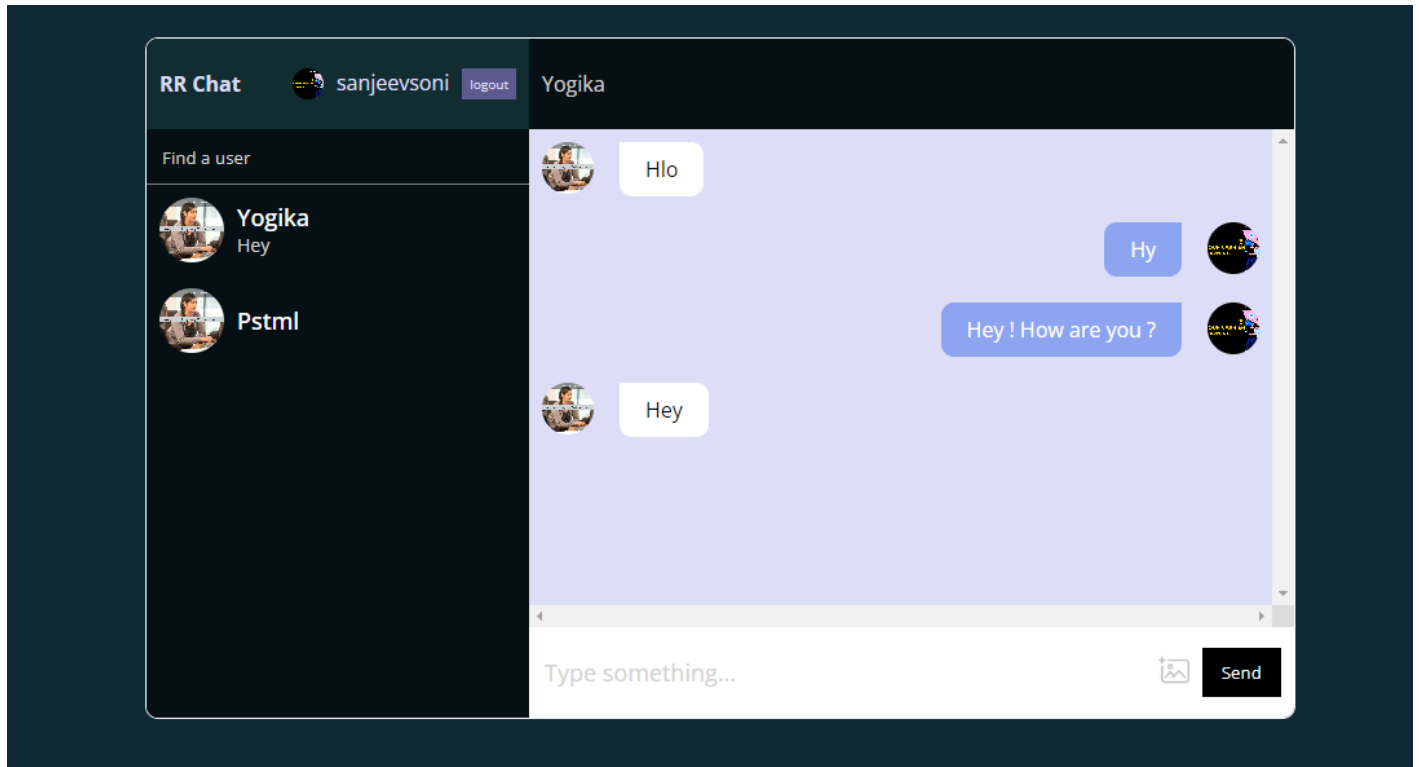


A screenshot of a web registration page for a service named 'Ping'. The page has a dark blue background. In the center is a white rounded rectangle containing the registration form. At the top of the white box, the word 'Ping' is written in a large, bold, dark blue font. Below it, the word 'Register' is written in a smaller, grey font. The form consists of three text input fields with light blue borders and placeholder text: 'display name', 'email', and 'password'. Below the 'password' field is an 'Add an avatar' option, which includes a small blue icon of a person with a plus sign and the text 'Add an avatar'. At the bottom of the form is a black rectangular button with the text 'Sign up' in white. Below the button, the text 'You do have an account?' is followed by a blue link labeled 'Login'.

## Home Page or Main Page: -



## Chatting Feature: -





## Multi-user chatting: -

