

**MINI PROJECT
(2021-22)**

“Web-Based Chat Application”

Project Report



Institute of Engineering & Technology

Submitted By -

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Declaration

I/we hereby declare that the work which is being presented in the Bachelor of technology. Project “Web-Based Chat Application”, in partial fulfillment of the requirements for the award of the Bachelor of Technology in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of my/our own work carried under the supervision of Mr. Kunal Goyal, Technical Trainer, Dept. of CEA, GLA University.

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

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Certificate

This is to certify that the project entitled “Web-Based Chat Application”, carried out in Mini Project – I Lab, is a bonafide work by Harishankar Kumar Yadav and is submitted in partial fulfillment of the requirements for the award of the degree Bachelor of Technology (Computer Science & Engineering).

Signature of Supervisor:

Name of Supervisor:

Mr. Kunal Goyal

Date:

Certificate of Achievement

BRONZE



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Job Oriented Value-Added Course
on

Hybrid Mobile App Development with React-Native

Certificate of Participation

This certificate is awarded to **HARISHANKAR YADAV**, Roll No. **191500314**
from **GLA University, Mathura**, for successfully completing the *Job Oriented Value-Added Course* on **Hybrid Mobile App Development with React-Native**, organized by Department of Computer Engineering & Applications (CEA) GLA University, Mathura (U.P.), India from **29th June, 2021 to 31st July, 2021.**

Dr. Rohit Agarwal
Head of Department

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Course Coordinator



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ACKNOWLEDGEMENT

Presenting the ascribed project paper report in this very simple and official form, we would like to place my deep gratitude to GLA University for providing us the instructor Mr. Kunal Goyal, our technical trainer and supervisor.

He has been helping us since Day 1 in this project. He provided us with the roadmap, the basic guidelines explaining on how to work on the project. He has been conducting regular meeting to check the progress of the project and providing us with the resources related to the project. Without his help, we wouldn't have been able to complete this project.

And at last but not the least we would like to thank our dear parents for helping us to grab this opportunity to get trained and also my colleagues who helped me find resources during the training.

Thanking You

Sign: *Harishankar Kumar Yadav*

Name of Candidate: Harishankar Kumar Yadav

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ABSTRACT

This project aims at creating on Web chat Application System which can be used by users. Chat application is a feature or a program on the Internet to communicate directly among Internet users who are online or who were equally using the internet. Chat applications allow users to communicate even though from a great distance. Therefore, this chat application must be real-time and multi-platform to be used by many users. Chatting is now-a-days very useful to express our ideas as well as receive others ideas on any topic. Chats reflect the recent trends of the society. Sometimes, it is possible to meet eminent people in chatting and have their advice.

Corporate messenger is a graphical chatting application that makes chatting a pleasant experience.

It has excellent features that make any user do what ever he wants while chatting.

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CHAPTER-1

INTRODUCTION

CONTEXT

This Web Application “Web-Based Chat Application” has been submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering at GLA University, Mathura supervised by Mr. Mandeep Singh. This project has been completed approximately three months and has been executed in modules, meetings have been organized to check the progress of the work and for instructions and guidelines.

MOTIVATION

The evolution of the internet technologies had benefit people to accessing to the web easily. More and more services provide by this internet All of this can be virtualize thank to the technologies. Communication between people using the internet becomes part of their daily life. People used to communicate with each other's using the online chat system to transfer their messages.

OBJECTIVE

The purpose of this project is to design a chat application, also known as a instant messaging system. The main purpose of the software is to provide users with an instant messaging tool that has the ability to handle millions of users simultaneously when needed and can be easily done.

EXISTING SYSTEM

The existing communication system is not built as a software application. Everybody communicates with others physically or through the mails. To make this complex communication job simple and allows the users to participate in live communication and save unproductive time it is to be built as a software application.

Each and every user or employee of an organization has to register, get into his inbox and check for his mail which doesn't provide live communication resemblance to the user. This facility does not categorize the users depending on their interests. This type of communication channel fails in providing effective user friendly communication between the users. If this channel grows up to some extent then it will be harder to place some restrictions on the users.

As a result, ineffective communication wastes the user time.

SOURCES

The source of the project (including all the project work, documentations and presentations) will be available at the following link.

<https://github.com/Harishankar-Kumar-Yadav/Mini-Poject.git>

CHAPTER -2

SOFTWARE REQUIREMENT ANALYSIS

ABOUT THE PROJECT

This project is designed to create a platform that allows the user deliver message anytime from anywhere . The implementation is based on the requirements for a web based chat system. This project accomplished the task of building a system that ensures accurate record maintenance which was done through proper id and the proper designation of user functions. The project was designed with the use of Microsoft visual Studio which is an integrated development environment made by Microsoft. It can be used to develop console and graphical user interface applications along with windows form application websites. The database system was created using Microsoft SQL server (MySQL).

PROBLEM STATEMENT

The problems faced by the existing system and hope to be solved by the Web-Based chat System are described below:

- Difficulty to deliver message.
- Time consuming
- Difficulty to contact anytime anywhere

HARDWARE AND SOFTWARE REQUIREMENTS

Hardware Requirement

- Processor : Intel i3
- Operating System : Any Operating System
- RAM : 4 GB (or higher)
- Hard disk : 64GB

Software Requirement

- Software used: VS code, XAMPP
- Language used : HTML, CSS, JS, PHP
- Database: MySQL
- Browser: Google Chrome

MODULES AND FUNCTIONALITIES

- ☐ **Login:** This is page is solely designed for the new users of the app who are willing to register themselves. This page takes input of the various details of the user and stores it in the database, later helping the user to login into the account with credentials they have provided.

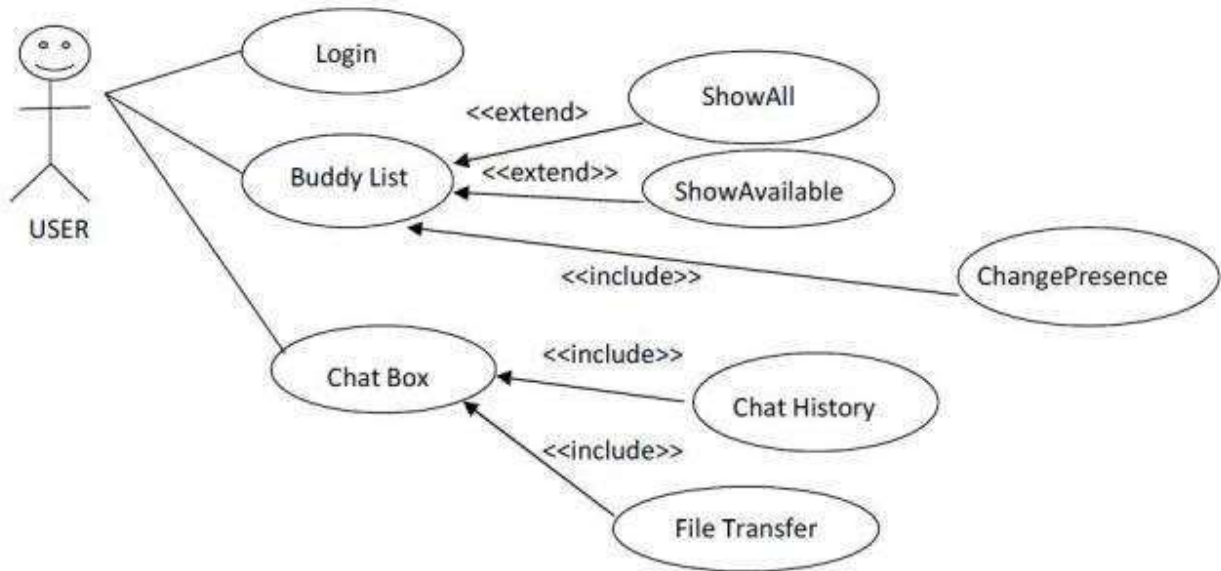
- ☐ **Profile:** This page will contain all the user details that the user entered while creating the account on the application. The user can update and make changes to all this information as desired.

- ☐ **Chat Room:** This page is for deliver message to anybody who is connected to this chat application.

- ☐ **Logout page:** Then is this last panel for the users to sign out from the account. As soon as the users sign out they are brought back to the login page.

CHAPTER- 3

SOFTWARE DESIGN USE-CASE DIAGRAM:



DATA FOW DIAGRAM

WEB DEVELOPMENT

Web development refers to the building, creating, and maintaining of websites. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e. websites.

The word Web Development is made up of two words, that is:

Web: It refers to websites, web pages or anything that works over the internet.

Development: Building the application from scratch.

TYPES OF WEB DEVELOPMENT

Web Development can be classified into two ways:

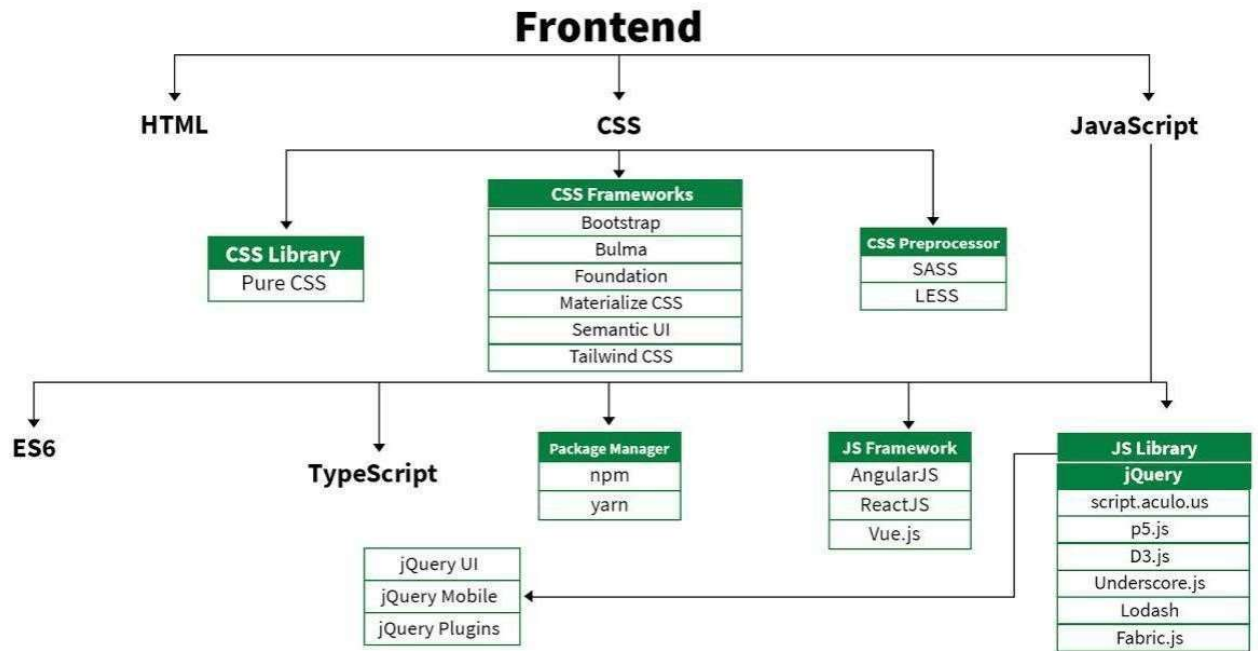
Frontend

Development

Backend

Development

Frontend Development: The part of a website that the user interacts directly is termed as front end. It is also referred to as the 'client side' of the application.



Frontend Frameworks and Libraries:

AngularJS

React.js

Vue.js

jQuery

Bootstrap

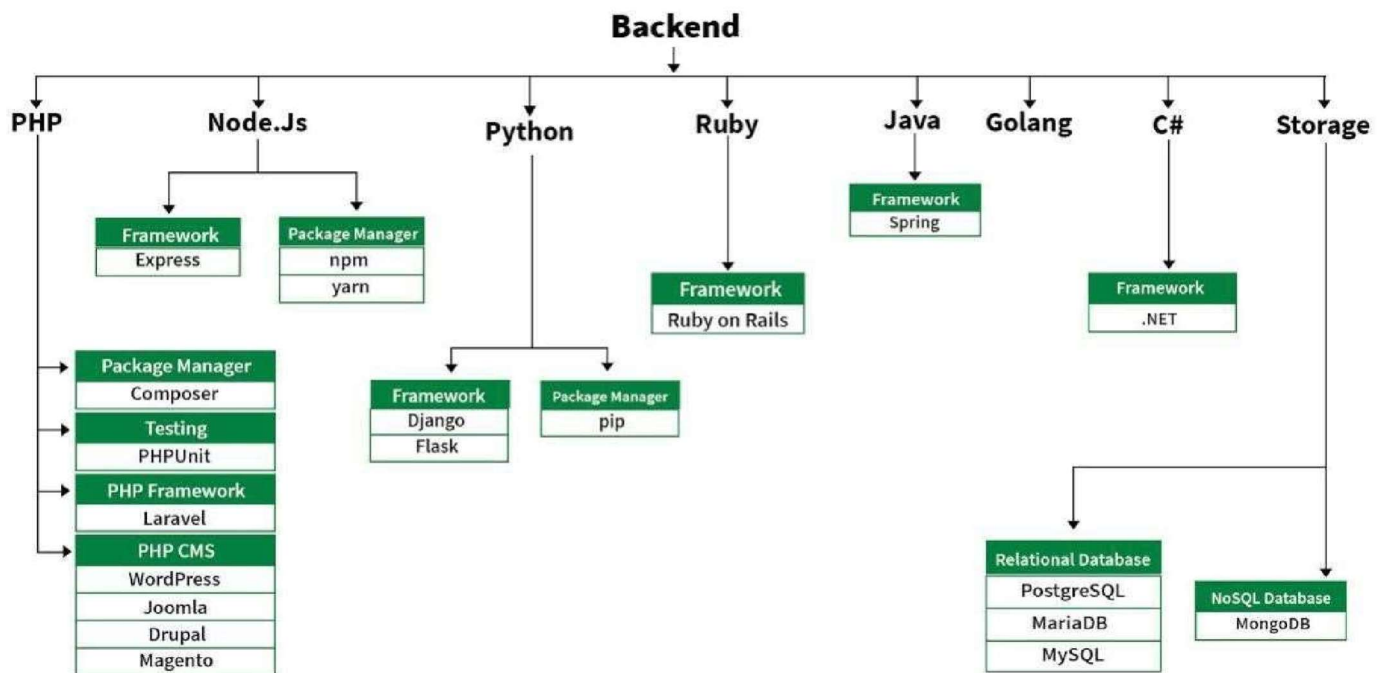
Material UI Tailwind CSS jQuery UI Some other libraries and frameworks are: Handlebar.js Backbone.js, Ember.js etc.

Backend Development: Backend is the server side of a website. It is the part of the website that users cannot see and interact. It is the portion of software that does not come in direct contact with the users. It is used to store and arrange data.

TOOLS AND LANGUAGES

Tools used to build the web development are:-

Visual Studio Code: Visual Studio Code is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme,



keyboard shortcuts, preferences, and install extensions that add additional functionality.

Visual Studio Code was first announced on April 29, 2015, by Microsoft at the 2015 Build conference. A preview build was released shortly thereafter.

On November 18, 2015, the source of Visual Studio Code was released under the MIT License, and made available on GitHub. Extension support was also announced. On April 14, 2016, Visual Studio Code graduated from the

public preview stage and was released to the Web. Microsoft has released most of Visual Studio Code's source code on GitHub under the permissive MIT License, while the releases by Microsoft are proprietary freeware. In the Stack Overflow 2021 Developer Survey, Visual Studio Code was ranked the most popular developer environment tool, with 70% of 82,000 respondents reporting that they use it.

HTML: HTML stands for Hypertext Markup Language. It is used to design the front end portion of web pages using markup language. It acts as a skeleton for a website since it is used to make the structure of a website.

CSS: Cascading Style Sheets fondly referred to as CSS is a simply designed language intended to simplify the process of making web pages presentable. It is used to style our website.

JavaScript: JavaScript is a scripting language used to provide a dynamic behavior to our website.

PHP: PHP is a server-side scripting language designed specifically for web development.

MySQL: is an open source relational database management system. Its name is a combination of “My” the name of co-founder Michael Widenius’s daughter, and “SQL” the abbreviation for Structured Query Language.

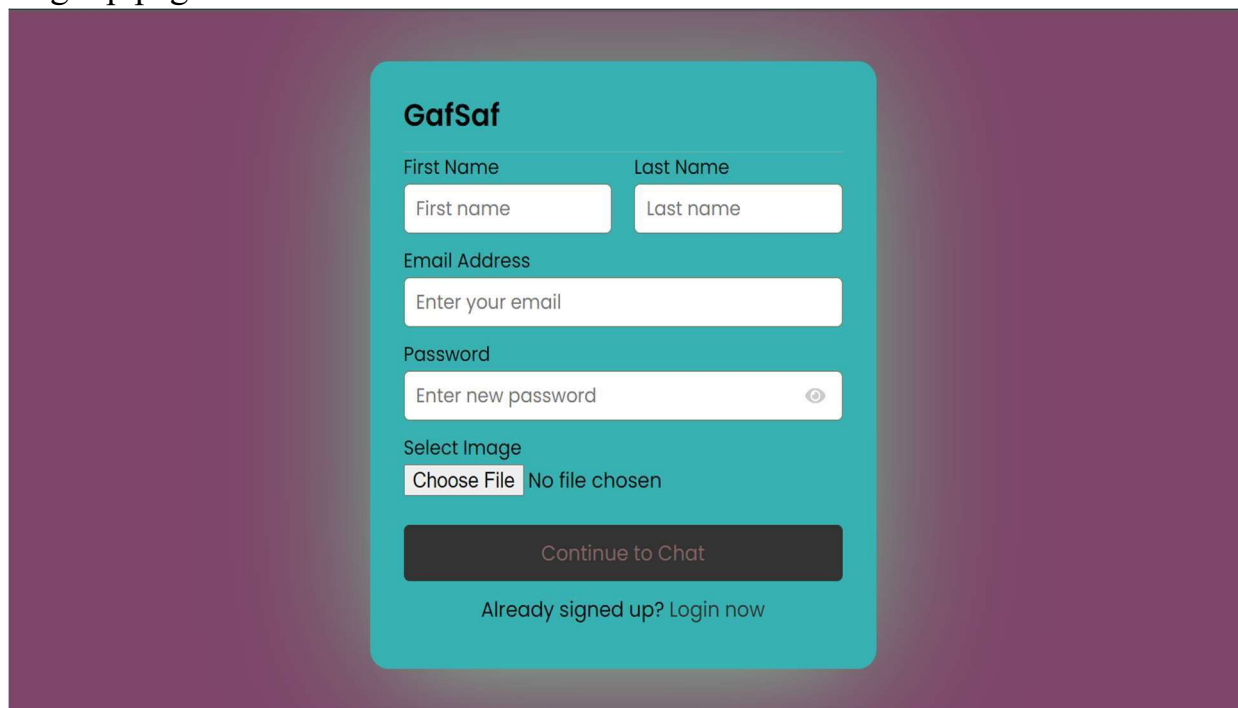
CHAPTER -5

IMPLEMENTATION AND USER INTERFACE

The term implementation has different meanings ranging from the conversion of a basic application to a complete replacement of a computer system. The procedures however, are virtually the same. Implementation includes all those activities that take place to convert from old system to new. The new system may be totally new replacing an existing manual or automated system or it may be major modification to an existing system. The method of implementation and time scale to be adopted is found out initially. Proper implementation is essential to provide a reliable system to meet organization requirement.

User Interface

Signup page:



The image shows a web-based signup form for 'GafSaf'. The form is centered on a dark purple background. It features a teal-colored container with rounded corners. Inside the container, the title 'GafSaf' is at the top. Below it are input fields for 'First Name' and 'Last Name', followed by a single-line 'Email Address' field, and a 'Password' field with a toggle icon. A 'Select Image' section includes a 'Choose File' button and the text 'No file chosen'. At the bottom of the container is a dark grey 'Continue to Chat' button. Below the container, the text 'Already signed up? Login now' is displayed.

GafSaf

First Name Last Name
First name Last name

Email Address
Enter your email

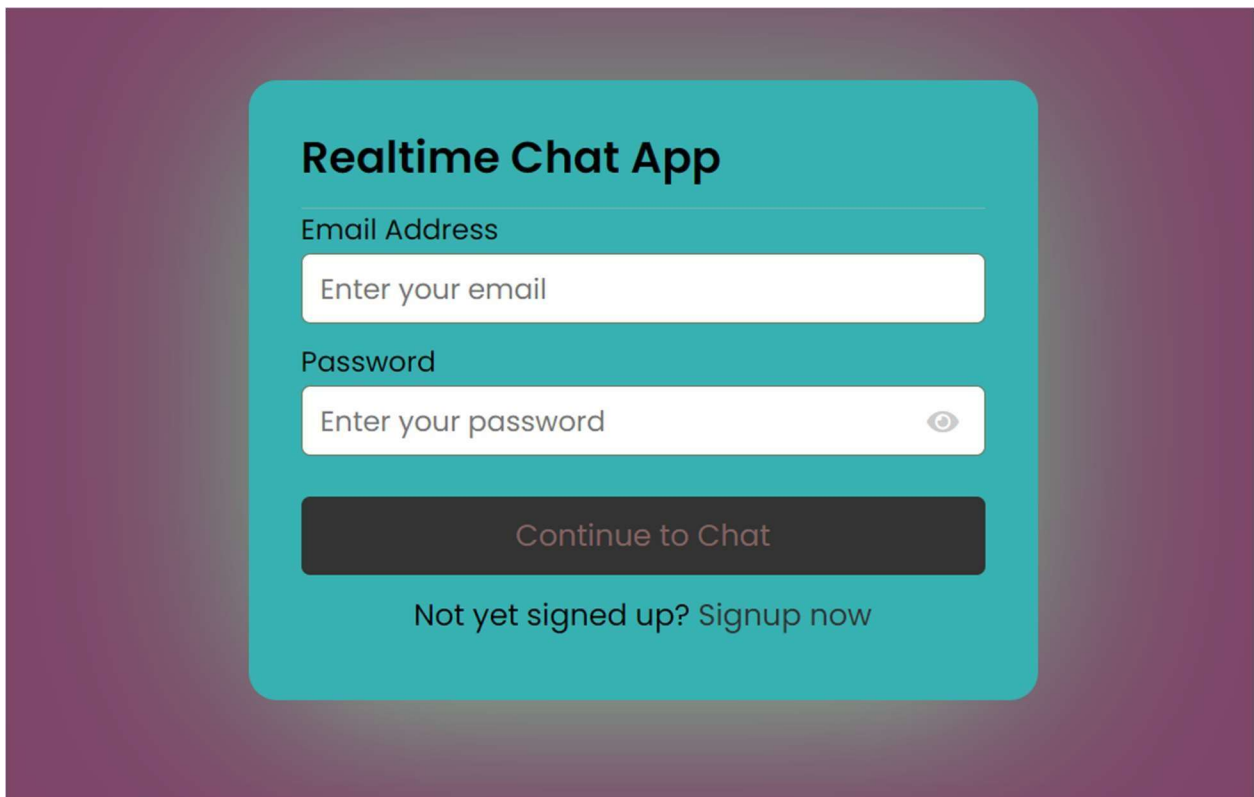
Password
Enter new password

Select Image
Choose File No file chosen

Continue to Chat

Already signed up? Login now

Login Page :



The login page features a teal background with a central teal rounded rectangle. Inside this rectangle, the title "Realtime Chat App" is at the top. Below it are two input fields: "Email Address" with the placeholder "Enter your email" and "Password" with the placeholder "Enter your password" and an eye icon for toggling visibility. A dark grey button labeled "Continue to Chat" is positioned below the password field. At the bottom of the teal rectangle is the text "Not yet signed up? Signup now".

Realtime Chat App

Email Address

Enter your email

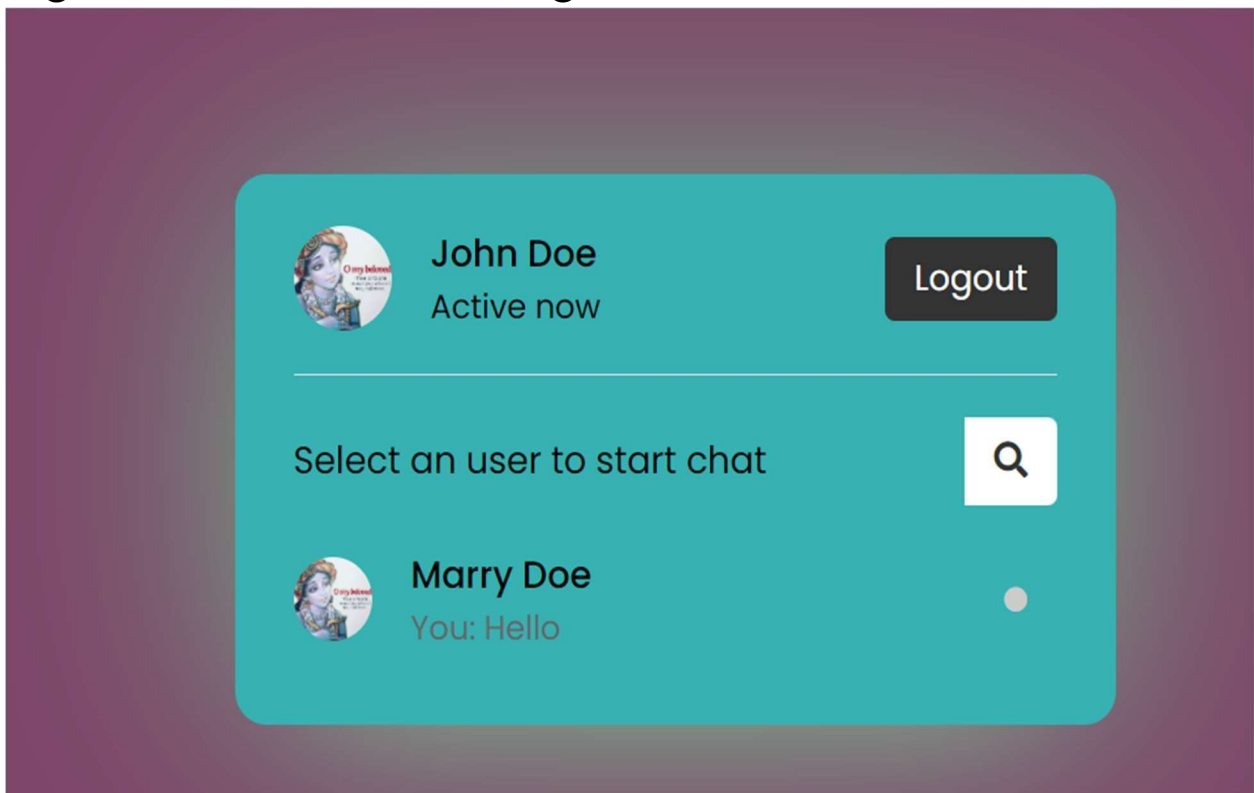
Password

Enter your password


Continue to Chat


Not yet signed up? Signup now


Logout and Friend Search Page :



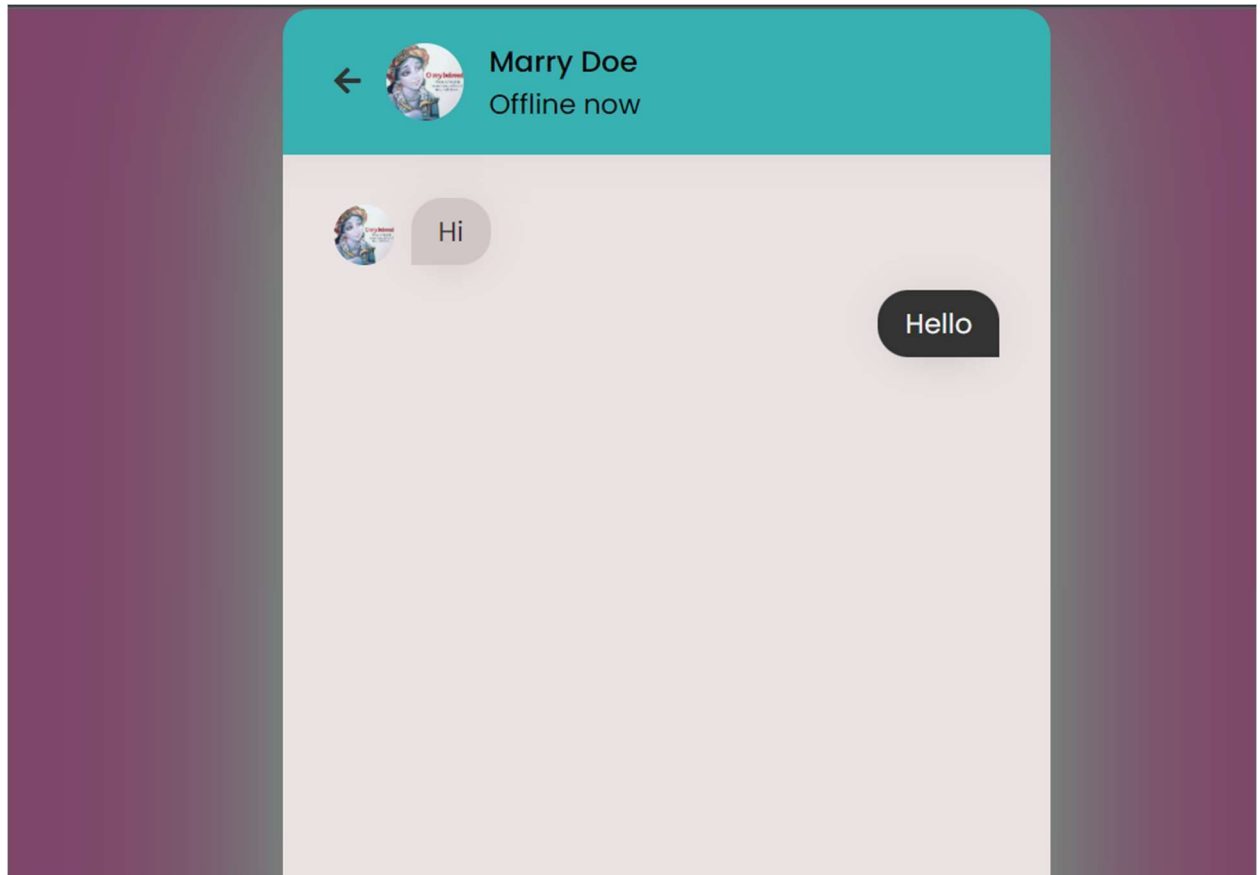
The page has a teal background with a central teal rounded rectangle. At the top, there's a user profile for "John Doe" with a circular avatar, the text "Active now", and a dark grey "Logout" button. Below this is a horizontal separator line. Under the line is the text "Select an user to start chat" and a search icon in a white box. At the bottom, there's a friend entry for "Marry Doe" with a circular avatar, the text "You: Hello", and a small grey dot to the right.

 **John Doe**
Active now **Logout**

Select an user to start chat 

 **Marry Doe**
You: Hello

Chat Room Page



CHAPTER -7

CONCLUSION

The primary goal of this project is to give an idea of Client Server Chat. This project has given us an in depth information about PHP networking and its applications in day today life. If internet lives up to its potential, it will revolutionize the way people interact with information technology.

Limitations of the application are as follows:

- Before running the client application makes sure the server application is running. If server is not in running condition then you cannot start the chatting.
- Single point of failure, Server goes down, the network goes down.

REFERENCES

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