

***Project Phase IV Report***

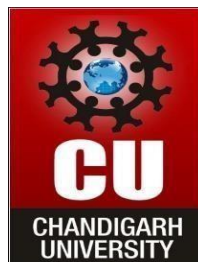
***On***

**Web – Based Chat Application**

**Submitted for the requirement of  
Project course**

**BACHELOR OF ENGINEERING**

**COMPUTER SCIENCE & ENGINEERING**



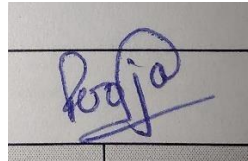
Submitted to: Mrs. Nisha Rani

Project Teacher (Supervisor)

(Name & E-code): Mrs. Nisha Rani, E12351

**Submitted By:**

<b>Name</b>	<b>UID</b>
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A handwritten signature in blue ink, appearing to read 'Pooja', is written over a horizontal line on a piece of paper.

**Co Supervisor Signature**

**(Name & E-code)**

**Pooja Sharma, E12345**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
CHANDIGARH UNIVERSITY, GHARUAN**

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## **ABSTRACT**

Chat application (web) is a feature or a program on internet to communicate directly among internet users who are online or who are 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. V Chat is a PHP based chat application which help user to communicate in real-time. User needs to signup in chat app then login accordingly through their credential also there is option for forget password in case user for their password. Status of message is also displayed on user screen to make it more convenient.

## **USE OF MODERN TOOLS IN DESIGN AND ANALYSIS**

Development of web tools and technologies brings more convince into our daily life. Lots for data can be transmitted easily from one place to another with the help of internet. Web based information system that uses internet web technologies to deliver information and services to users or other information system/application.

### **System Requirement**

- Operating System: Windows 10 is used as operating system as it is stable and support more features and is more convenient.
- Database: MySQL is used for maintenance of backend database as it is easy to create, update, read and delete data / records by simple queries which are easy to understand and write.
- Development tools and Programming Languages: VS code is IDE for writing the code and programming languages used were- HTML, CSS, Bootstrap, JavaScript, PHP.
- XAMPP: It is a free and open-source cross-platform web server solution stack package developed by Apache Friend, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreter for scripts written in the PHP and Perl programming language.

### **FRONT – END**

- **HTML (Hyper Text Markup Language)**  
Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs,

images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets.

- **CSS (Cascading Style Sheet)**

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate CSS file, and reduce complexity and repetition in the structural content.

CSS information can be provided from various sources. These sources can be the web browser, the user and the author. The information from the author can be further classified into inline, media type, importance, selector specificity, rule order, inheritance and property definition. CSS

style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used; for example, the screen version can be quite different from the printed version, so that authors can tailor the presentation appropriately for each medium. The style sheet with the highest priority controls the content display. Declarations not set in the highest priority source is passed on to a source of lower priority, such as the user agent style. The process is called cascading.

One of the goals of CSS is to allow users greater control over presentation. Someone who finds red italic headings difficult to read may apply a different style sheet. Depending on the browser and the web site, a user may choose from various style sheets provided by the designers, or may remove all added styles and view the site

using the browser's default styling, or may override just the red italic heading style without altering other attributes.

- **JAVASCRIPT**

JavaScript is a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it. As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype based) programming styles. It has APIs for working with text, arrays, dates, regular expressions, and the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities. It relies upon the host environment in which it is embedded to provide these features.

- **BOOTSTRAP**

Bootstrap is defined as a collection of HTML, CSS and JavaScript tools for creating and building web pages and web applications. Bootstrap is flexible and easy to work. Bootstrap is also known as a frontend development framework that enables developers and designers to build fully responsive websites quickly. Bootstrap can be used with any IDE or editor and any server-side technology and language from ASP.NET to PHP to Ruby on Rails. Bootstrap is a responsive grid so there will be no more spending hours coding your own grid. Bootstrap comes with a whole barrel full of components that can easily tack into webpages including: navigation 9 bars, dropdowns, progress bars, thumbnails and more. Every piece of code is described and explained in explicit detail on their website. As with so many open-source projects bootstrap has a large community of designer and developers behind it. Being hosted on GitHub makes it easy developers to modify and contribute to bootstrap codebase. Automatic resizing images based on the current screen size is possible with Bootstrap.

## BACK-END

- **PHP (PHP: Hypertext Preprocessor)**

PHP is a server-side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension “.php”.

The term PHP is an acronym for PHP: Hypertext Pre-processor. PHP is a server-side scripting language designed specifically for web development. PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP with client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser.

- **SQL (Structured Query Language)**

MySQL is an open-source relational database management system (RDBMS) based on Structured Query Language (SQL). It is one part of the very popular LAMP platform consisting of Linux, Apache, My SQL, and PHP. Currently My SQL is owned by Oracle. My SQL database is available on most important OS platforms. It runs on BSD Unix, Linux, Windows, or Mac OS. Wikipedia and YouTube use My SQL. These sites manage millions of queries each day. My SQL comes in two versions: My SQL server system and My SQL embedded system.



## **DISCUSSION AND REPORT/RESULT ANALYSIS**

The main aim of web-based chat application is to provide accessibility to user to send messages over internet. User can communicate to each other where the chat should be abstracted from other users and can only be access by verified user account (sender and receiver). It will help user to communicate any time and user will have a account ID and password through which only he can see his chat with whom he have send messages. It is a web – based chat application so can be easily accessible from anywhere in world without taking too much space in user device. It will notify user where which user in his contact is online or offline and their message status with timestamp when that is been send.

### **EXISTING SYSTEM**

The existing system of sending message has several disadvantages. It requires user money in their sim account to send message also charges are very high in those service compare to web-based technology. User can also use many chatting app for their devices but those require lot of space in their device over the time those app will be updated and after some time period and will create space issue in user device. It is difficult to maintain space for all the apps in the device if user's device has lot of apps in it. But since it is a web-based chat application so user only need to login and then can chat easily without worrying about the space problem in their devices and security issue. Also chatting app can only be used on android and IOS but if user want to access it on pc then he has to use a intermediate software which require lot ram and space in pc and will eventually slow down the pc performance.

### **PROPOSED SYSTEM**

The proposed system is web application. It is a chatting website where users can create their account and start to chat with each other by searching their username in search box. They can check their status weather the person is online or offline and does not require much space or ram in their system and this will not disturb user device performance. Also it is more convenient and less time consuming.

## **PROJECT MANAGEMENT AND PROFESSIONAL COMMUNICATION (PRESENTATION)**

# WEB – BASED CHAT APPLICATION



MEMBER –

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## Introduction

- ▶ The project "Web – Based Chat Application " is a web based project which mainly focuses on basic operation like creating new users account through signup page then let them access their account through their credentials. Searching for another user through user user id and transmitting message to each other by abstraction the details from other user. It helps user to check the status of person whether the user is online or offline and status of message like whether it is been read or not , or time at which it is been send or received.

## Aim & Objective

- ▶ SMS related issues.
- ▶ Space issue in device.
- ▶ Checking for receiver status whether online or offline
- ▶ Message status whether read or unread
- ▶ Also requires less time and faster service
- ▶ Secure data transmission
- ▶ Easily accessible

## TECHNOLOGY USED

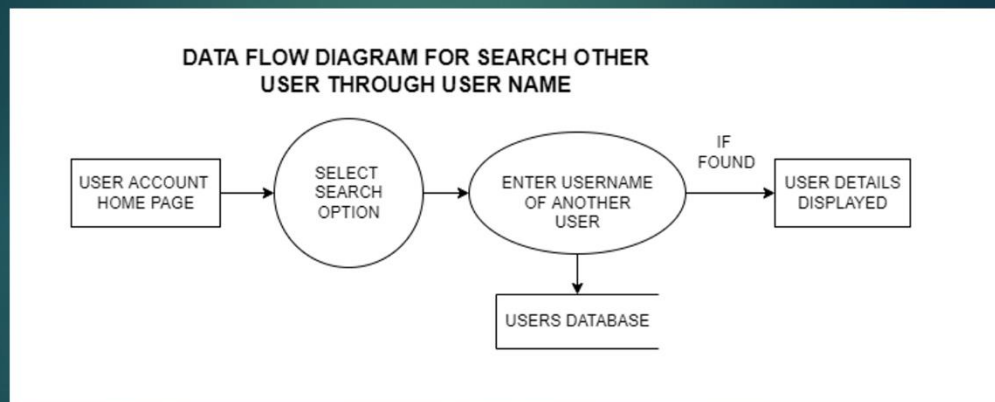
### ▶ LANGUAGES USED

- ▶ HTML
- ▶ CSS
- ▶ JS
- ▶ PHP
- ▶ BOOTSTRAP

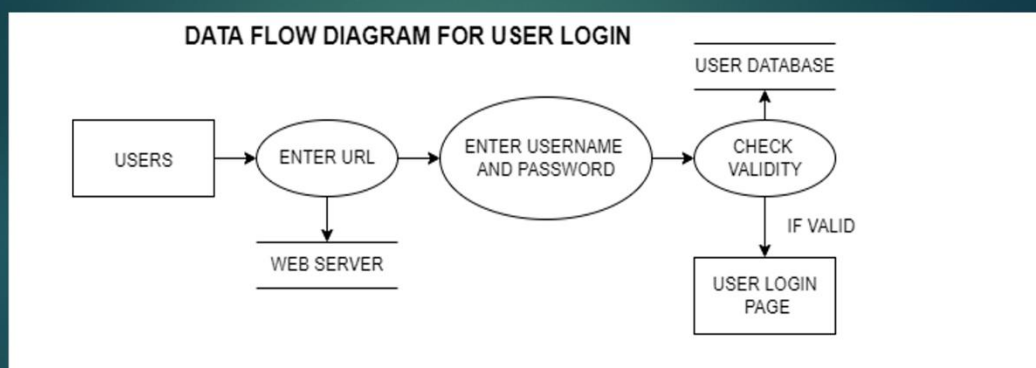
### ➤ TOOLS USED

- VS code
- XAMPP
- Window 10 OS

## Data Flow Diagram

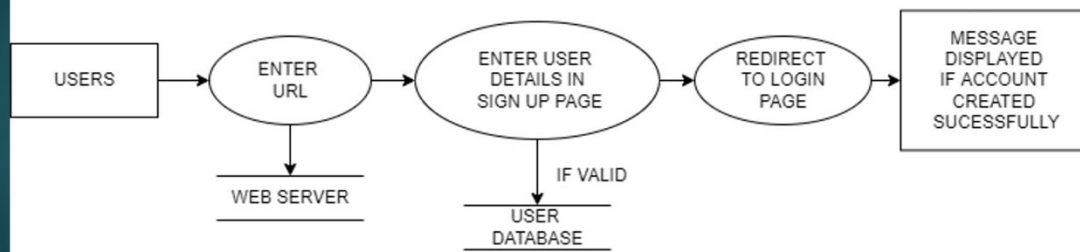


## Data Flow Diagram



## Data Flow Diagram

DATA FLOW DIAGRAM FOR ACCOUNT CREATION



## Back End Database

– Login and Signup table structure

Recent Favorites

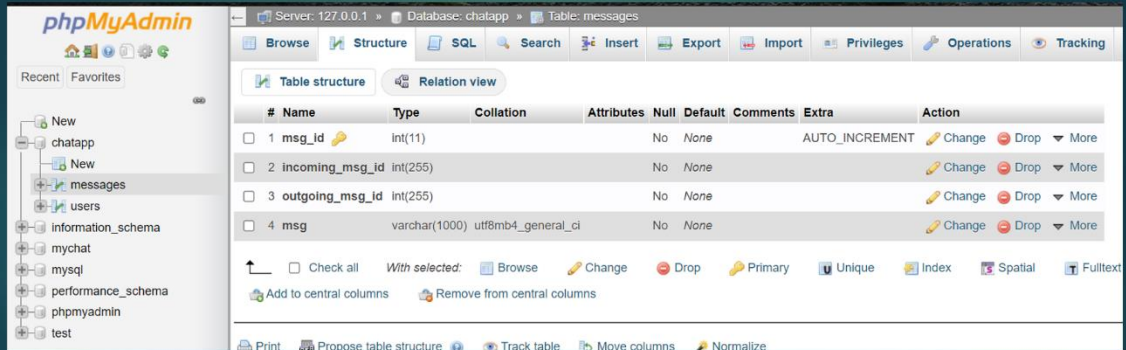
Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	user_id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	unique_id	int(255)			No	None			Change Drop More
3	fname	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
4	lname	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
5	email	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
6	password	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
7	img	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
8	status	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More

Check all With selected Browse Change Drop Primary Unique Index Spatial

## Back-End Database

### - Users Chat Data table

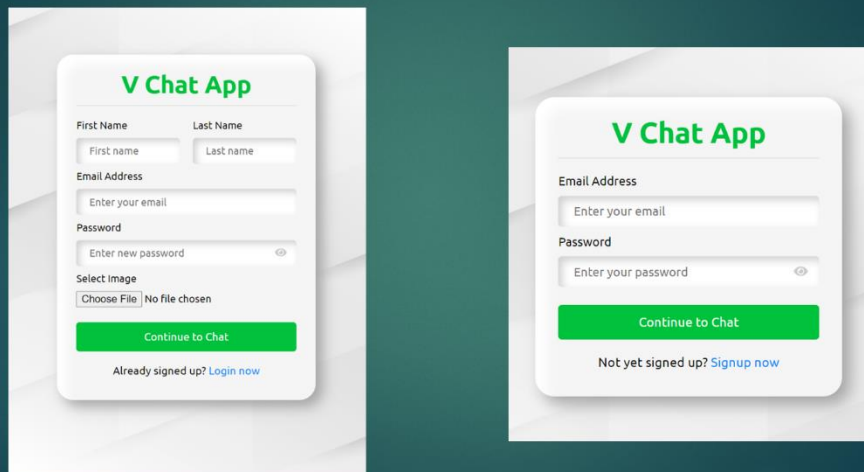


The screenshot shows the phpMyAdmin interface with the 'messages' table selected. The table structure is as follows:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	msg_id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	incoming_msg_id	int(255)			No	None			Change Drop More
3	outgoing_msg_id	int(255)			No	None			Change Drop More
4	msg	varchar(1000)	utf8mb4_general_ci		No	None			Change Drop More

Below the table structure, there are options to 'Check all', 'With selected', 'Add to central columns', 'Remove from central columns', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', 'Spatial', and 'Fulltext'. At the bottom, there are links for 'Print', 'Propose table structure', 'Track table', 'Move columns', and 'Normalize'.

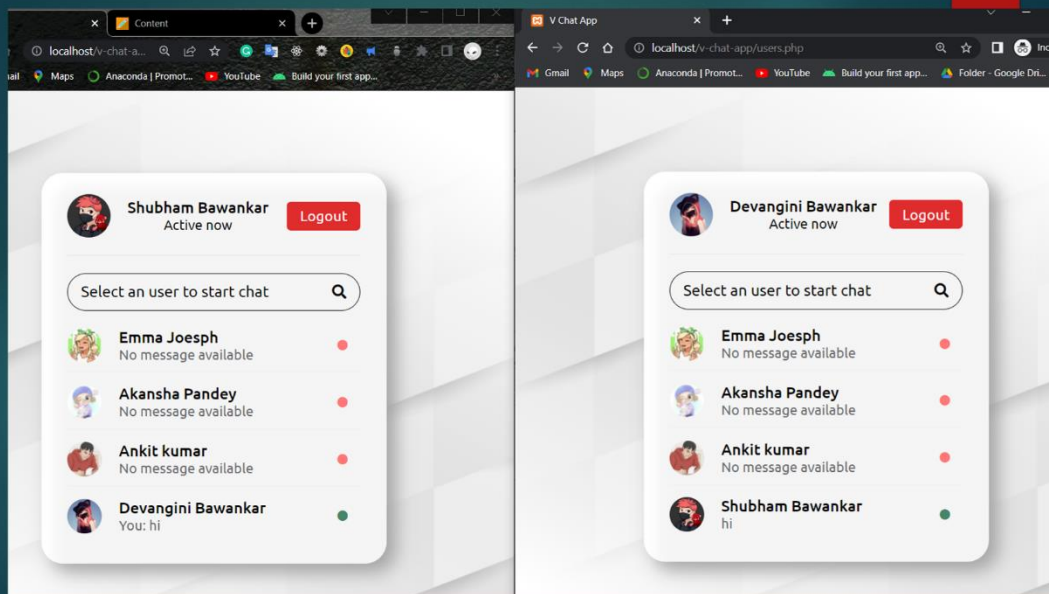
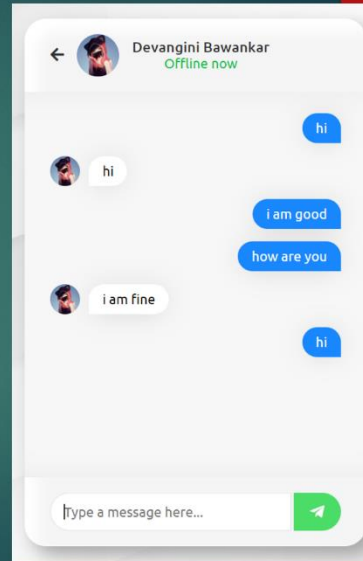
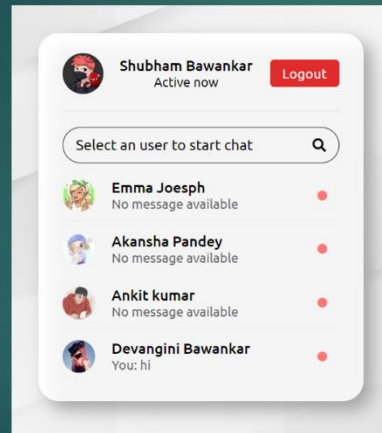
## Screenshot of web app



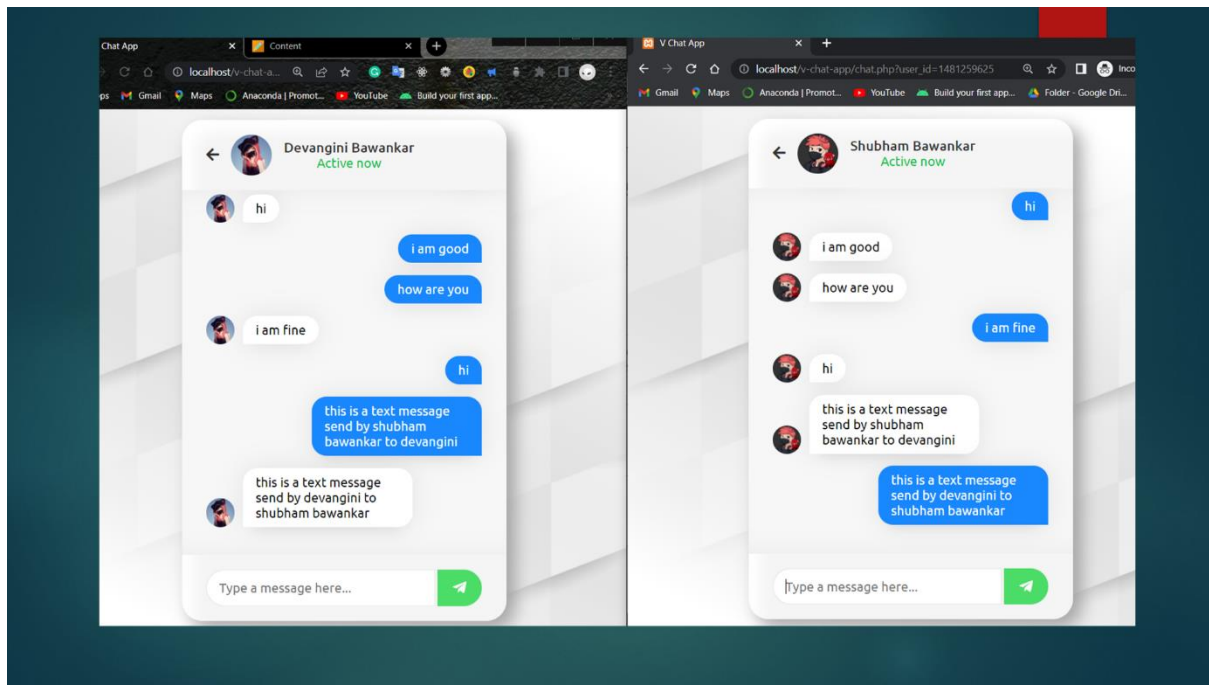
The left screenshot shows the registration form for 'V Chat App'. It includes fields for 'First Name', 'Last Name', 'Email Address', and 'Password'. There is also a 'Select Image' section with a 'Choose File' button and a 'No file chosen' status. A green 'Continue to Chat' button is at the bottom, along with a link for 'Already signed up? Login now'.

The right screenshot shows the login form for 'V Chat App'. It includes fields for 'Email Address' and 'Password'. A green 'Continue to Chat' button is at the bottom, along with a link for 'Not yet signed up? Signup now'.

## Screenshot of web app







## Contribution

- ▶ Shubham Bawankar - 20BCS7409
- ▶ Worked on front end and web designing part. Worked on designing using HTML, CSS, JavaScript, and Bootstrap.
- ▶ Worked on database creation and all backend coding part in project.



## Outcome

- ▶ Advantage
  - ▶ More efficient for users to communicate easily.
  - ▶ Low operation cost and better and quality services.
  - ▶ No issue related to space issue in device.
  - ▶ Can be use anywhere with internet connectivity.
- ▶ Disadvantage
  - ▶ Not everyone is has proper internet connection.
  - ▶ Chat is stored in database in text format so less secure.

### **ATTAINMENT OF STATED OUTCOME**

This website provides website version of chat app so that user can send message without downloading any app. It can benefit user to communicate via internet with more convenience. It can be used on both phone and pc without worrying about download and install whole software. It is convenient for performance of the device as it is a website so won't take much space and ram. Data is also stored on server so can be retrieve easily if lost.

The main purpose of the project was learning development of chat application website with PHP and MYSQL. Planning for making website was quite hard part. This project helps in understanding of how database and website are connected to each other and how data flow between database and website. Also, it helps in building logic that how to update, read delete

and add data in database and using those databases in real-time scenario. Developer has used different web tools and technology to create this website. This will help to save time and effort of users. At present on my project only send text message but in future it will be able to send data of all kind as well as the security regarding data must also need to be enhanced.

## **SDG GOALS ATTAINED**

### **Goal 1: Gender Equality**

My website is made for user to communicate with each other irrespective of gender or caste discrimination. Also it has terms and condition and privacy policy which doesn't promote discrimination.

### **Goal 2: Climate Action**

We made the website which doesn't require any resources which could harm the environment and effect the climate.

### **Goal 3: Life on Land**

Our model doesn't affect any environmental factors and its helping user to communicate to

each other through internet.