COMMUNIFY

Social Media for Gamers

A Project Work Submitted for the Degree of

Bachelor of Technology

in

Computer Science & Engineering

BY

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June 2022

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CERTIFICATE OF APPROVAL

This is to certify that the work embodied in this project entitled **"COMMUNIFY – Social Media Platform for Gamers"** submitted by **Partha Sarathi Bhunia, Utsanjan Maity** and **Abhik Khatuya**, to the Department of Computer Science & Engineering, is carried out under my direct supervision and guidance.

The project work has been prepared as per the regulations of West Bengal University of Technology and I strongly recommend that this project work be accepted in partial fulfilment of the requirement for the degree of B.Tech.

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Certificate by the Board of Examiners

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Project Co-ordinator

Board of Examiners

ACKNOWLEDGEMENT

It gives us great pleasure to find an opportunity to express our deep and sincere gratitude to our project guide **Dr. Tapas Kumar Maiti**. We do very respectfully recollect his constant encouragement, kind attention and keen interest throughout the course of our work. We are highly indebted to him for the way he modelled and structured our work with his valuable tips and suggestions that he accorded to us in every respect of our work.

We are extremely grateful to the **Department of Computer Science & Engineering, College of Engineering and Management, Kolaghat**, for extending all the facilities of our department.

We humbly extend our sense of gratitude to other faculty members, laboratory staff, library staff and administration of this Institute for providing us their valuable help and time with a congenital working environment.

Last but not the least; we would like to convey our heartiest thanks to all our classmates who time to time have helped us with their valuable suggestions during our project work.

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ABSTRACT

Social Media is websites and applications that enable users to create and share content or to participate in social networking, like Facebook, Twitter, YouTube, Instagram, WhatsApp etc. Nowadays there's no one who hasn't use at least one of these in recent years. And talking about Digital games, it has become a popular form of media entertainment. Almost 40% of the world population are playing video games in recent years and daily it is becoming more bigger industry.

But when we talk about any social media that is solely dedicated for gamers to communicate, there is none. They have to use different famous social networking sites like YouTube and Facebook to showcase their talent and other things related to gaming. There are some other social sites (Twitch, Reddit, Steam etc.) as well which gamers use to chat or stream but no social site is there which is dedicated to gamers.

This project aims to develop a Social Media platform named **COMMUNIFY** - a social media platform fully dedicated for Gamers.

Project Sections:

- Communify: The main body of the project, where users can share and see posts.
- Talk-E: This is the part where users can talk to fellow users.

Technologies to be used:

- Frontend: Angular
- Backend: Nodejs, JAVA
- Database: Firebase, Oracle DB

Features to be added if possible:

- Machine Learning engine to rank post for any specific user.
- Video Streaming in Post section.
- Online Calling, Video Chatting.

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1.INTRODUCTION

Social Networking - It's the way the 21st century communicates now. Social networking is the grouping of individuals into specific groups, like small rural communities or a neighbourhood subdivision. Although networking is possible in person, especially in the workplace, universities, and high schools, it is most popular online. This is because unlike most high schools, colleges, or workplaces, the internet is filled with millions of individuals who are looking to meet other people.

Social network is the mapping and measuring of relationships and flows between people, groups, organizations, computers, URLs, and other connected information/knowledge entities. The nodes in the network are the people and groups while the links show relationships or flows between the nodes. Social network provides both a visual and a mathematical analysis of human relationships.

Social Networking Website project itself is a huge project comprising various features like profile updating, friend's list organization and various other application to enhance the overall look and feel of the website. However, in this project we are basically working on some of the most essential feature or module, those are -

GAMER PROFILE MANAGEMENT module maintains the profile of a user like name, like, dislikes, bio etc.

GAMING BUDDY ORGANIZATION module maintains the friend list, handles request and sends request to the other user.

POST MANAGEMENT module maintains the posts, text and attachments of posts of any user.

Talk-E module maintains the messages of any user.

Those are some of the key features on social network sites. Another one is a public testimonials (react, commenting) feature. This feature allows individuals to react and comment on their friends' profiles. These comments are displayed prominently and visible for anyone who has access to that profile.

1.1 Problem Statement

We define social network sites as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.

Since their introduction, social network sites (SNSs) such as Facebook, Instagram, Twitter etc have attracted millions of users, many of whom have integrated these sites into their daily practices. As of this writing, there are hundreds of SNSs, with various technological affordances, supporting a wide range of interests and practices. While their key technological features are fairly consistent, the cultures that emerge amend SNSs are varied. Most sites support the maintenance of pie- existing social networks, but others help strangers connect based on shared interests, political views, or activities. Some sites cater to diverse audiences, while others attract people based on common language or shared racial, sexual, religious, or nationality- based identities. Sites also vary in the extent to which the y incorporate new information and communication tools, such as mobile connectivity, blogging, and photo/ video-sharing.

Social networking sites are not only for you to communicate or interact with other people globally but, this is also one effective way for business promotion. A lot of business minded people these days are now doing business online and use these social networking sites to respond to customer queries. It isn't just a social media site used to socialize with your friends but also, represents a huge pool of information from day to day living.

A social networking service is an online service, platform, or site that focuses on facilitating the building of social networks or social relations among people who, for example, share interests, activities, backgrounds, or real-life connections. A social network service consists of a representation of each user (often a profile), his/her social links, and a variety of additional services. Most social network services are web-based and provide means for users to interact over the Internet, such as e-mail and instant messaging. Online community services are sometimes considered as a social network service, though in a broader sense, social network service usually means an individual centred service whereas online community services are group-centred. Social networking sites allow users to share ideas, activities, events, and interests within their individual networks.

1.2 Domain Study

As of May 2013, almost three quarters (72%) of online U.S. adults use social networking sites, up from 67% in late 2012. When we first started asking about social networking sites in February 2005, just 8% of online adults said they used social networking sites.

Today, social networking site use is a major activity for internet users from a wide range of demographic groups. Younger adults are especially avid adopters, but social networking continues to grow in popularity for older adults as well. Six out of ten internet users ages 50-64 are social networking site users, as are 43% of those ages 65 and older. Although online seniors are less likely than other age groups to use social networking sites, adoption rates for those 65 and older have tripled in the last four years.

The main types of social networking services are those that contain category places (such as former school year or classmates), means to connect with friends (usually with self-description pages), and a recommendation system linked to trust. Popular methods now combine many of Facebook, Google+, YouTube, LinkedIn, Instagram, Pinterest, Tumblr and Twitter widely used worldwide; Nexopia in Canada; Badoo, Bebo, VKontakte (Russia), Delphi (also called Delphi Forums), Draugiem.lv (mostly in Latvia), Hi5 (Europe). Hyves (mostly in The Netherlands), iWiW (mostly in Hungary), Nasza-Klasa, Soup (mostly in Poland), Glocals in Switzerland, Skyrock, The Sphere, StudiVZ (mostly in Germany), Tagged, Tuenti (mostly in Spain), and XING in parts of Europe; Hi5 and Orkut in South America and Central America; Mxit in Africa; and Cyworld, Mixi, Orkut, renren, weibo and Wretch in Asia and the Pacific Islands. Many of these early communities focused on bringing people together to interact with each other through chat rooms, and encouraged users to share personal information and ideas via personal web pages by providing easy-to-use publishing tools and free or inexpensive web space. Some communities such as Classmates.com - took a different approach by simply having people link to each other via email addresses. In the late 1990s, user profiles became a central feature of social networking sites, allowing users to compile lists of "friends" and search for other users with similar interests. New social networking methods

were developed by the end of the 1990s, and many sites began to develop more advanced features for users to find and manage friends. This newer generation of social networking sites began to flourish with the emergence of Six Degrees.com in 1997 followed by Makeoutclub in 2000, HubCulture and Friendster in 2002 and soon became part of the Internet mainstream. Friendster was followed by MySpace and Linked In a year later, and eventually Bebo. Friendster became very popular in the Pacific Island. Orkut became the first social networking in Brazil and then also grow fast in India (Madhavan, 2007). Attesting to the rapid increase in social networking sites' popularity, by 2005, it was reported that MySpace was getting more page views than Google. Facebook, launched in 2004, became the largest social networking site in the world in early 2009. Facebook was first introduced (in 2004) as a Harvard social networking (Cassidy, 2006).

1.3 Existing Systems

According to the definition above, the first recognizable social network site launched in 1997. SixDegrees.com allowed users to create profiles, list their Friends and, beginning in 1998, surf the Friends lists. Each of these features existed in some form before Six Degrees, of course. Profiles existed on most major dating sites and many community sites. AIM and ICQ buddy lists supported lists of Friends, although those Friends were not visible to others.

SixDegrees was the first to combine these features. SixDegrees promoted itself as a tool to help people connect with and send messages to others. While SixDegrees attracted millions of users, it failed to become a sustainable business and, in 2000, the service closed. Looking back, its founder believes that

SixDegrees was simply ahead of its time (A. Weinreich, personal communication, July 11, 2007). While people were already flocking to the Internet, most did not have extended networks of friends who were online. Early adopters.com explained that there was little to do after accepting Friend requests, and most users were not interested in meeting strangers.

Classmates.com allowed people to affiliate with their high school or college and surf the network for others who were also affiliated, but users could not create profiles or list Friends until years later.

From 1997 to 2001, a number of community tools began supporting various combinations of profiles and publicly articulated Friends. AsianAvenue, BlackPlanet, and MiGente allowed users to create personal, professional, and dating profiles - users could identify Friends on their personal profiles without seeking approval for those connections (O. Wasow, personal communication, August 16, 2007). Likewise, shortly after its launch in 1999, LiveJournal listed one-directional connections on user pages. LiveJournal's creator suspects that he fashioned these Friends after instant messaging buddy lists (B. Fitzpatrick, personal communication, June 15, 2007) on LiveJournal, people mark others as Friends to follow their journals and manage privacy settings. The Korean virtual worlds site Cyworld was started in 1999 and added SNS features in 2001, independent of these other sites (see Kim & Yun, this issue). Likewise, when the Swedish web community LunarStorm refashioned itself as an SNS in 2000, it contained Friends lists, guestbooks, and diary pages (D. Skog, personal communication, September 24, 2007).

1.4 Project Scope

- This system provides users to register their various types of profile like social, personal, general, professional.
- This system provides users to send a scrap message, images, and data files to their friends. User can maintain the tab to follow whatever message he has sent to other users.
- This system provides user to upload the photos so that user can maintain own album.
- This system provides user to join the communities according to their scenario.
- This system provides the user to maintain their friend list and user can update their friend list.
- This system provides user to send invitation to another friend and can add to their friend list for future.

2. LITERATURE SURVEY

The Web-based social networking services make it possible to connect people, who share interests and activities across political, economic, and geographic borders. Through e-mail and instant messaging, online communities are created where a gift economy and reciprocal altruism are encouraged through cooperation. Information is suited to a gift economy, as information is a non-rival good and can be gifted at practically no cost.

Facebook and other social networking tools are increasing the object of scholarly research. Scholars in many fields have begun to investigate the impact of social networking sites, investigating how such sites of identity, privacy, social capital, youth culture, and education. may play into issues.

Several websites are beginning to tap into the power of the social networking model for philanthropy. Such models provide a means for connecting otherwise fragmented industries and small organizations without the resources to reach a broader audience with interested users. Social networks are providing a different way for individuals to communicate digitally. These communities of hypertexts allow for the sharing of information and ideas, an old concept placed in a digital environment. In 2011, HCL Technologies conducted research that showed that 50% of British employers had banned the use of social networking sites/services during office hours.

3.REQUIREMENT ANALYSIS

3.1 Functional Requirement

Server Object

The Server class acts as a wrapper for all server functions for our social networking site. It essentially acts as a link between all of the information such as accounts, account details, pages, notes, etc to our database. When any other model object such as a page is pulled from the server, a temporary copy is made. If that temporary copy is changed in any way. The new version must be sent to the server in order to update the permanent copy. The reason behind local copies is that all the necessary information for the object is sent over in one easy-to-use package. Then the update to the database can be done all at once by sending back that single object. There is no need for multiple functions or a function that takes a large number of parameters.

Account Object

Each user who wants to use the site must create an account. This is the head class that all other objects use to determine what a user does and when the user did it. The account's information has four purposes: hold the login information, hold friend information, hold profile information, and hold privacy information with such a large amount of information to keep track of, the Account class would be very large and difficult to work with. Therefore, to ease the load, the Account class was broken up into three different classes. There is the actual account class which keeps track of login information and friend information. It also holds the other two classes within it. Profile information was outsourced to the Account Details class, and privacy settings were outsourced to the Privacy

Settings class. The only time the Account class needs to be updated is when the user changes his/her username and/or password. All other settings are handled by the Account Details and Privacy Settings classes.

Account Details Object

An Account Details object is a helper class created whenever a new Account object is created. The object contains all the information that shows up in the user's profile. The user can edit this by modifying his/her profile. Overall, this class has no other purpose but to be a helper class to its account object.

Chat Session Object, Event Object

These objects contain unique information for a particular type of action a user performs. All of these contain a reference to the account that owns them. Each object is a "working copy" of an object in the Server. Anytime one of these objects is created on the Server, an entry of its creation is added to the news feed database.

Message Object

A Message object is created when a user composes a new message to be sent to a friend. After it is confirmed that the friend is located in the database, the Message object adds its information to the database. When a user checks his or her inbox, a list of messages that were sent to the user will be shown in descending order of when they were received.

Wall Post Object

A Wall Post object works very similar to a Message object. The only difference is that the Wall Post objects are viewable to all friends of the user. Another difference is that a Wall Post object can hold comments and reacts. If a user adds a wall post to his or her own account, their status will change to the new wall post.

Friends

The most important feature is being able to add and remove friends. In our Social Networking site, making friends is a fairly straightforward process. Users can type in the name of a friend in the search bar at the top of their home page. The database is queried for an account that has the search term contained in the full name, mail id. For example, User A could search for User B in the search bar. After clicking on User B's profile, User A will see a button that says Send Friend Request. Clicking on it will send an alert to User B that User A wants to be a friend. The friend request will now be in the friends list of User B, where he/she can either accept it or ignore it, letting it sit there indefinitely. If user B accepts the request, User A will be added to User B's friends list and vice versa. Being friends has its advantages. For example, only friends can chat to each other. Finally, for a user to view his/her friends and incoming friend requests, he/she just clicks on the friends' tab which brings up a frame.

Account Creation

When a user accesses the site for the first time, he/she must create an account before using any of the site features. The account creation process is broken into three sections. The first section deals with the login information and is required for the user to fill out. This includes the email, password, and password confirmation. The purpose behind the password confirmation is to ensure that the user didn't accidentally mistype when creating a password. The second section deals with information about who you are such as name, location, and gender. Most of these fields are optional except for your name and gender. It wouldn't be much of a social network if everyone was named anonymous. The final section deals with information about the users likes and dislikes, such as interests and activities. Unlike the other two sections, this section is completely optional. Once the user clicks create account, a new account, account details, and privacy settings are added to the server, and the user is brought back to the login page

Privacy

Privacy is very important feature for some people, and social networking is no exception to this. Our system provides privacy for chatting section where only your friends can chat with you. A feature with a friend only privacy level is fairly self-explanatory.

Chatting

One of the advantages of having friends is the ability to have live communications with them via chat. When a friend is online, he/she will appear in the chat tab as an available friend to chat with. To start a chat session, simply

click on the name of the friend which will begin a new chat session. The little bar at the bottom will change from chat disabled to chatting with friend name as seen in the figure below. Also, the friend receiving the chat will get a notification that a new chat session has started. Then the two friends can chat with each other until one or both log out.

The chat feature is a little more complex than others as it requires a combination of WebSocket, Java, Angular, Database to work. When a user clicks on a friend name to begin a chat, a chat request is sent to the database. On every page there is a function that queries the server for any new chat requests once a second, so the client can request for the server to run a check and return any relevant information. If there is a new chat request, a pop up is generated, notifying the receiver of the new chat that is starting or a new pending chat if the user is in another chat. When a user sends a message, another function is called, to alert the server that it needs to update the chat session with a new message. At the same time, another function is running to ask the server once a second if the chat session has been updated. Overall, it is a lot of the client asking the server to send over any changes that exist.

Events

In addition to messaging your friends, social networking sites are a great place to alert your friends of important upcoming events. For example, if a user is throwing a birthday party, he/she could create an event an invite friends he/she wants to attend or simply make it a public for anyone. The process of creating an event is as simple as filling out a form which looks like this.

After filling out the form, the user will be brought to the standard confirmation page. He/she can then view the new event by clicking on the Events tab and clicking on the new event. If the user wishes to edit some information about the event, he/she can click on the edit link next to the event where a similar form to creating an event will be displayed with all the fields populated with the current event information.

Storing the event is a fairly straightforward process. Once the form data is submitted, a new Event object is created storing the Account that created the event as well as all the information sent along with the form. That new event is then sent to the server, which creates a database query and stores the fields of the event object into equivalent fields of the event database table. Retrieving events is also a fairly straightforward process. A query is called to pull the contents of the event into an array, and that array is used to instantiate a new working copy of the event in an Event object.

Media Uploading

As people use their social networking account, they will want to be able to upload post related text, images etc, to share with their friends. The media upload section will be located at the media tab, where users are able to specify a file to upload as well as provide a short description of the file to be uploaded. In order to prevent users from uploading potentially malicious files such as executables, only certain file extensions are supported. These allowed extensions cover popular image extensions such as png, jpg, gif, and bitmap.

3.2 Non-Functional Requirement

- Secure access of confidential data by user name and password. This application is secure for every kind of its users, because if any user logout from any session, then nobody will be able to access his profile without knowing his confidential password.

- 24 X 7 availability

- Better component design to get better performance at peak time.

- The database used here is robust, reliable & fast. So users will have to wait for the output very short time.

- This application can be accessed from any type of platform.

- There is no case of redundancy in the database so it will not take extra memory space.

- Username & password are sent to the users via email after registration.

- Password recovery system is also provided in case of forgetting the password.

3.3 Software Tools Specification

ANGULAR

Angular JS is an open-source JavaScript framework that is used to build web applications. It can be freely used, changed and shared by anyone.

Angular JS is developed by Google.

It is an excellent framework for building single phase applications and line of business applications.

Following are the advantages of AngularJS over other JavaScript frameworks:

- **Dependency Injection:** Dependency Injection specifies a design pattern in which components are given their dependencies instead of hard coding them within the component.
- **Two-way data binding:** AngularJS creates a two-way data-binding between the select element and the orderProp model. orderProp is then used as the input for the orderBy filter.
- **Testing:** Angular JS is designed in a way that we can test right from the start. So, it is very easy to test any of its components through unit testing and end-to-end testing.
- **Model View Controller:** In Angular JS, it is very easy to develop application in a clean MVC way. You just have to split your application code into MVC components i.e. Model, View and the Controller.
- Directives, filters, modules, routes etc.

Node.js

Node.js is a cross-platform runtime environment and library for running JavaScript applications outside the browser. It is used for creating server-side and networking web applications. It is open source and free to use. It can be downloaded from this link https://nodejs.org/en/

Many of the basic modules of Node.js are written in JavaScript. Node.js is mostly used to run real-time server applications.

The definition given by its official documentation is as follows:

“Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.”

Node.js also provides a rich library of various JavaScript modules to simplify the development of web applications.

Node.js = Runtime Environment + JavaScript Library

JAVA

Java is a **programming language** and a **platform**. Java is a high level, robust, object-oriented and secure programming language.

Java was developed by *Sun Microsystems* (which is now the subsidiary of Oracle) in the year 1995. *James Gosling* is known as the father of Java.

Platform: Any hardware or software environment in which a program runs, is known as a platform. Since Java has a runtime environment (JRE) and API, it is called a platform.

Currently, Servlet, JSP, Struts, Spring, Hibernate, JSF, etc. technologies are used for creating web applications in Java. We'll use few of them.

FIREBASE

Firebase is a Backend-as-a-Service (BaaS) which started as a YC11 startup. It grew up into a next-generation app-development platform on Google Cloud Platform. Firebase (a NoSQLjSON database) is a real-time database that allows storing a list of objects in the form of a tree. We can synchronize data between different devices.

Google Firebase is Google-backed application development software which allows developers to develop **Android**, **IOS**, and **Web apps**. For reporting and fixing app crashes, tracking analytics, creating marketing and product experiments, firebase provides several tools.

Firebase has three main services, i.e., a real-time database, user authentication, and hosting. We can use these services with the help of the Firebase iOS SDK to create apps without writing any server code.

ORACLE DB

Oracle database is a relational database management system. It is also called OracleDB, or simply Oracle. It is produced and marketed by Oracle Corporation. It was created in 1977 by Lawrence Ellison and other engineers. It is one of the most popular relational database engines in the IT market for storing, organizing, and retrieving data.

Oracle database was the first DB that designed for enterprise grid computing and data warehousing. Enterprise grid computing provides the most flexible and cost-effective way to manage information and applications. It uses SQL queries as a language for interacting with the database.

3.4 Software Used

Front End: Angular

Back End: NODE.js, JAVA

Database: Firebase, Oracle DB

Browser: Any latest browser (JavaScript supported)

4. DESIGN SPECIFICATION

4.1 Modular Design

This application comprises the following major modules:

Register to be a member Module

This module provides functionalities for those people who wants to open an account. Applicants can post their views with personal and professional details. They can also update the profile as frequently as required. The member can also browse through the friends' profile available.

Profile Module

This module provides functionalities related to members' profile. Logged users can see their details and if they wish to change any of their information, they can edit it.

Post Module

This module provides functionalities related to members' created posts. Logged users can see their posts and if they wish they can edit it.

Message Module

This module provides functionalities related to users' sent or received messages. Users can see or sent messages to any of his/her friend.

4.2 System Design

4.2.1 Flow Chart

A **flowchart** is a picture of the separate steps of a process in sequential order. It is a generic tool that can be adapted for a wide variety of purposes, and can be used to describe various processes, such as a manufacturing process, an administrative or service process, or a project plan.

Communify Section

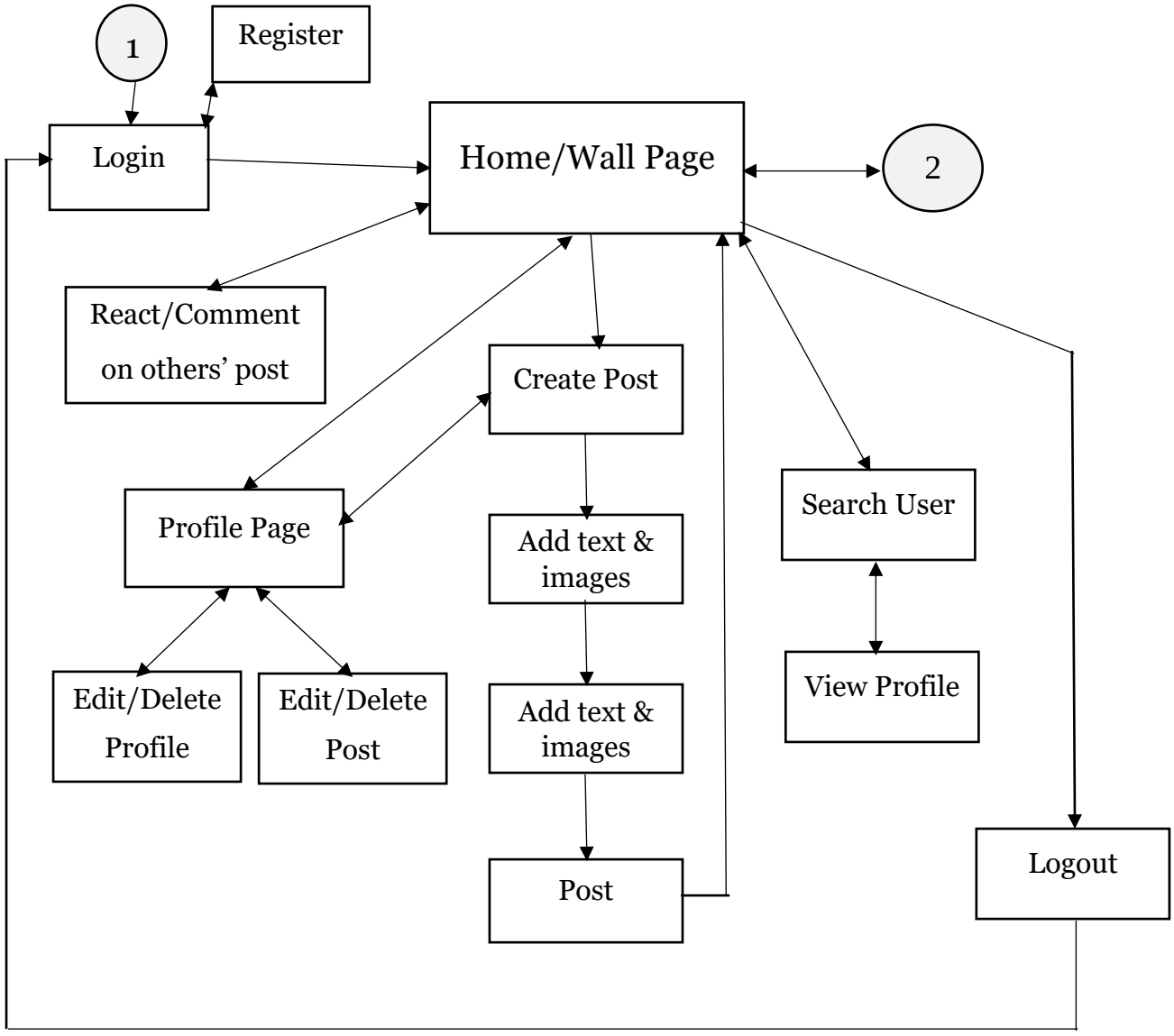


Figure 4.1.1 User Screen Flow (Communify)

TalkE Section

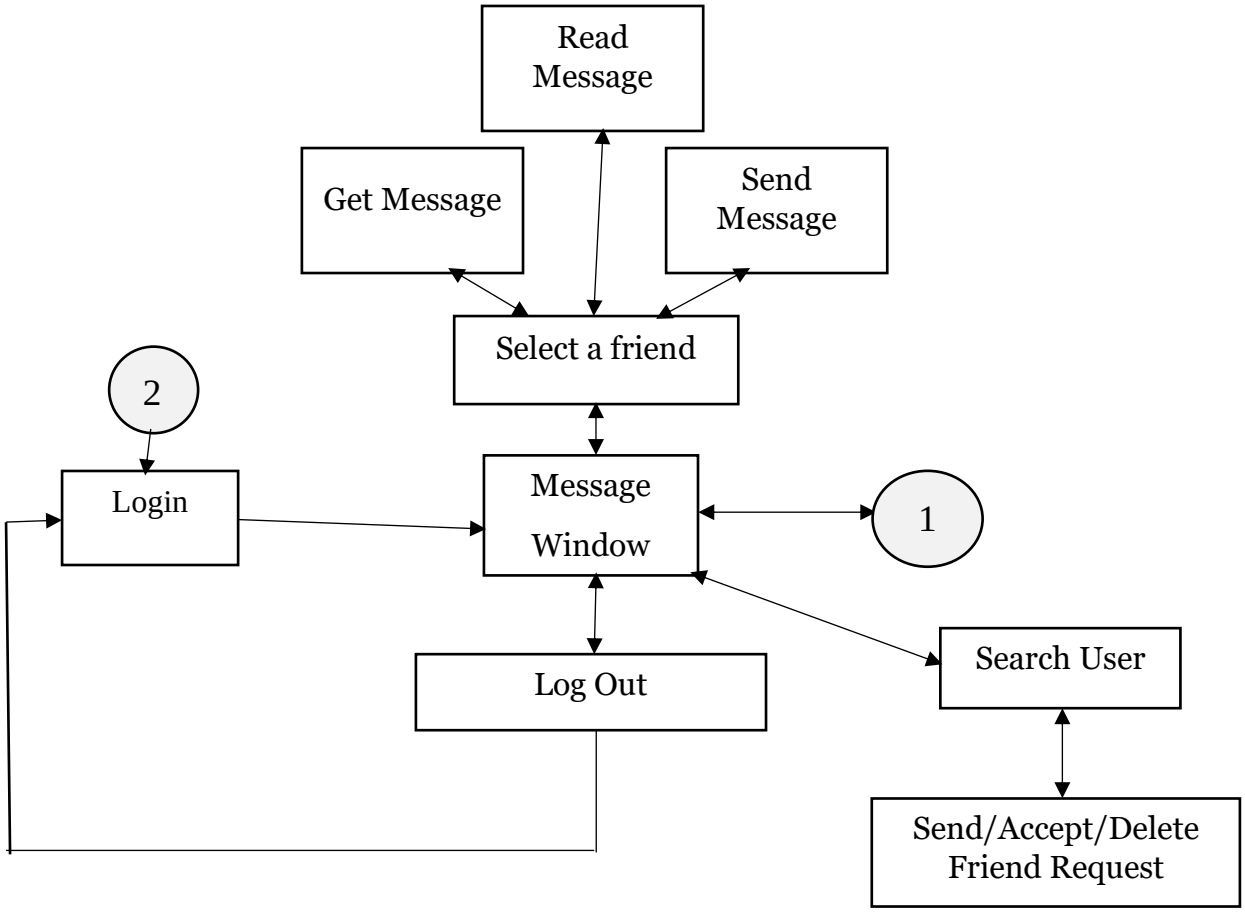


Figure 4.1.2 User Screen Flow (TalkE)

4.2.2 Entity-Relationship Diagrams

An **Entity Relationship (ER) Diagram** is a type of flowchart that illustrates how "entities" such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. They use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes.

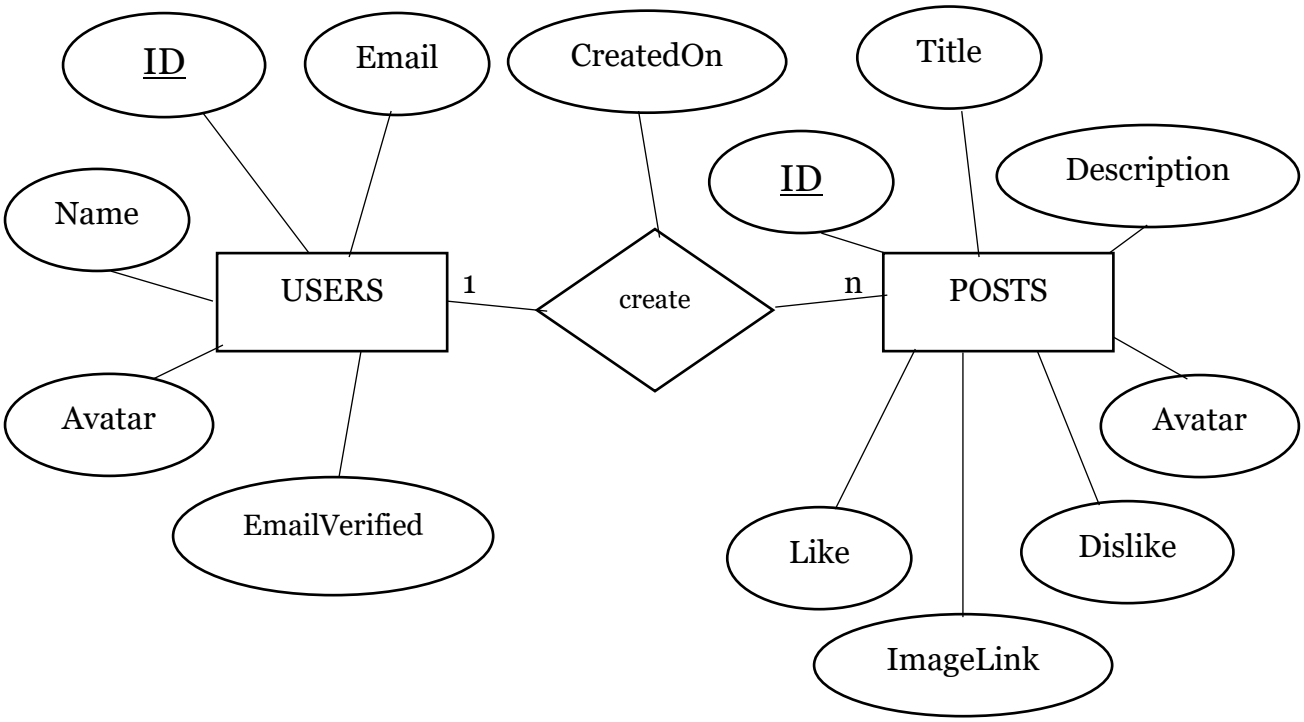


Figure 4.2.1 E-R Diagram (Communify)

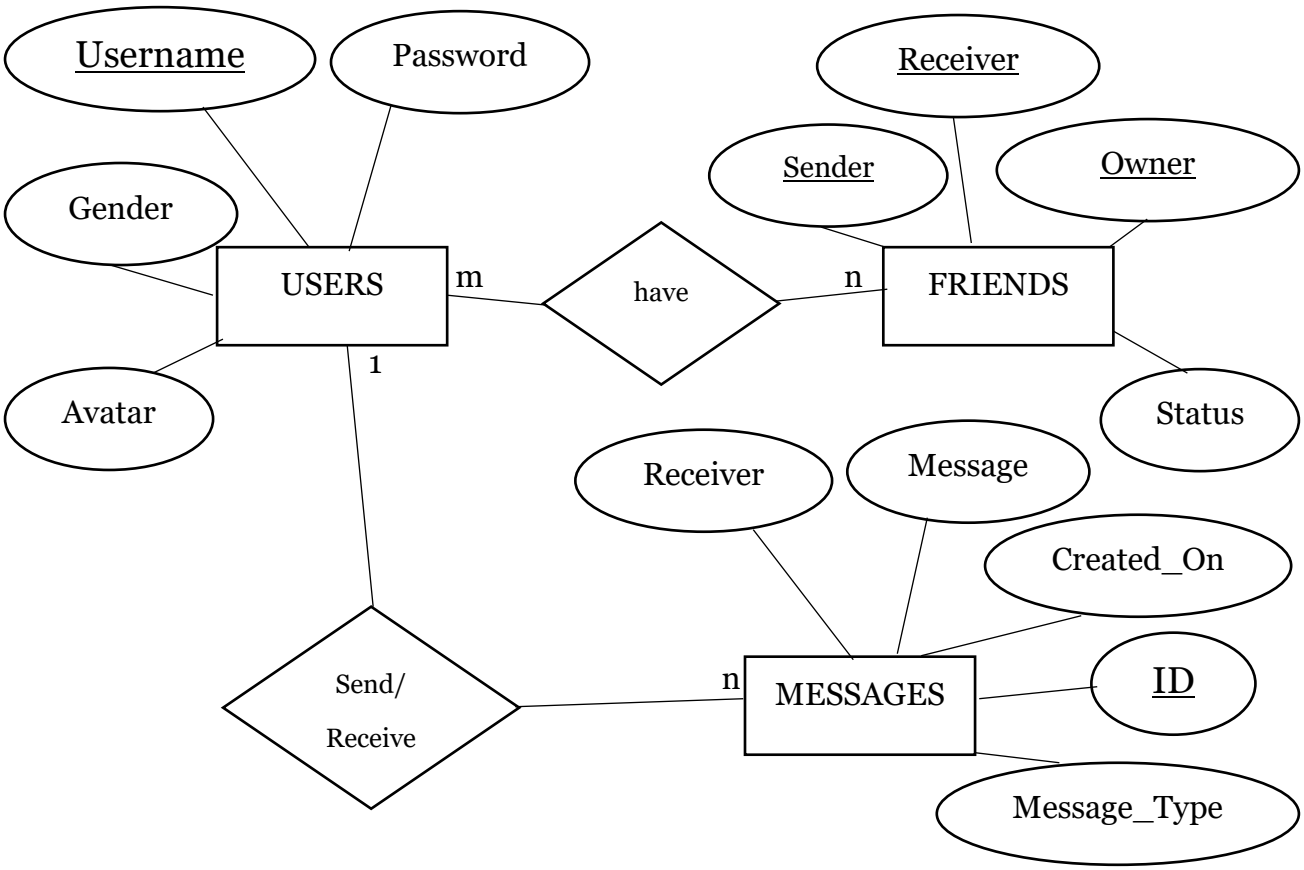


Figure 4.2.2 E-R Diagram (TalkE)

4.2.2 Data Flow Diagrams

Data flow diagrams model the flow of data into, through, and out of an information system:

- show the processes that change or transform data
- show the movement of data between processes
- represent a system as a network of processes which transform data flowing between them.

Level O DFD: A level 0 DFD, also called a fundamental system model or context diagram represents the entire software element as a single bubble with input and output data indicated by incoming and outgoing arrows, respectively.

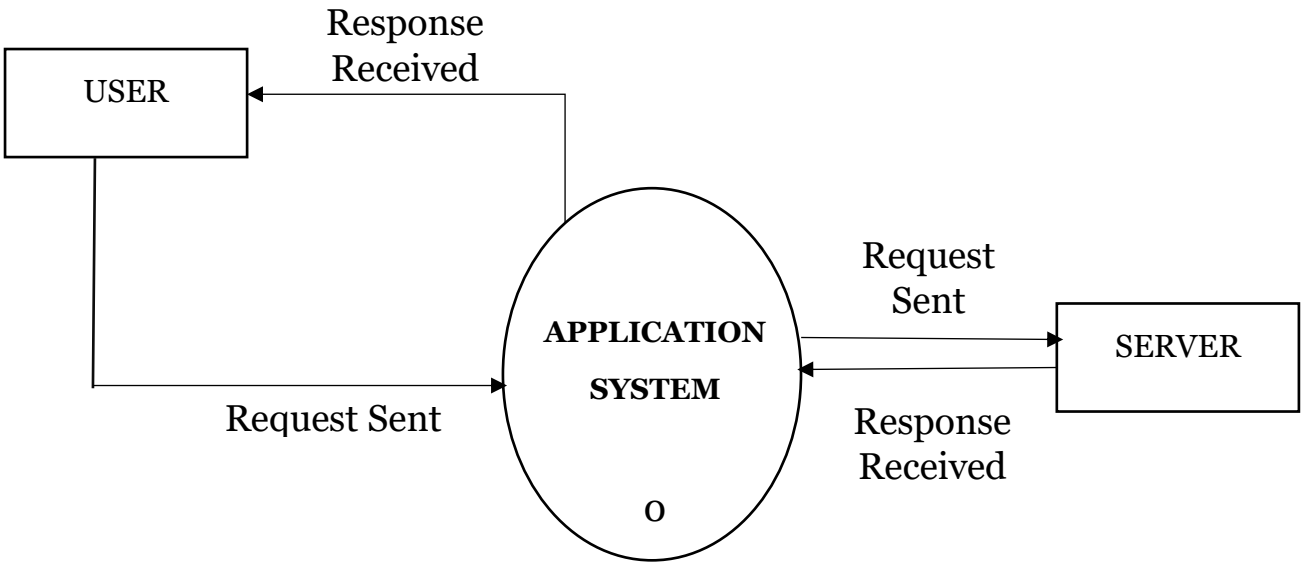


Figure 4.3 Context Diagram (Communify)

Level 1 DFD: This level of DFD provide more detailed structure. It provides a detailed view of requirements and flow of data from 1 node to another.

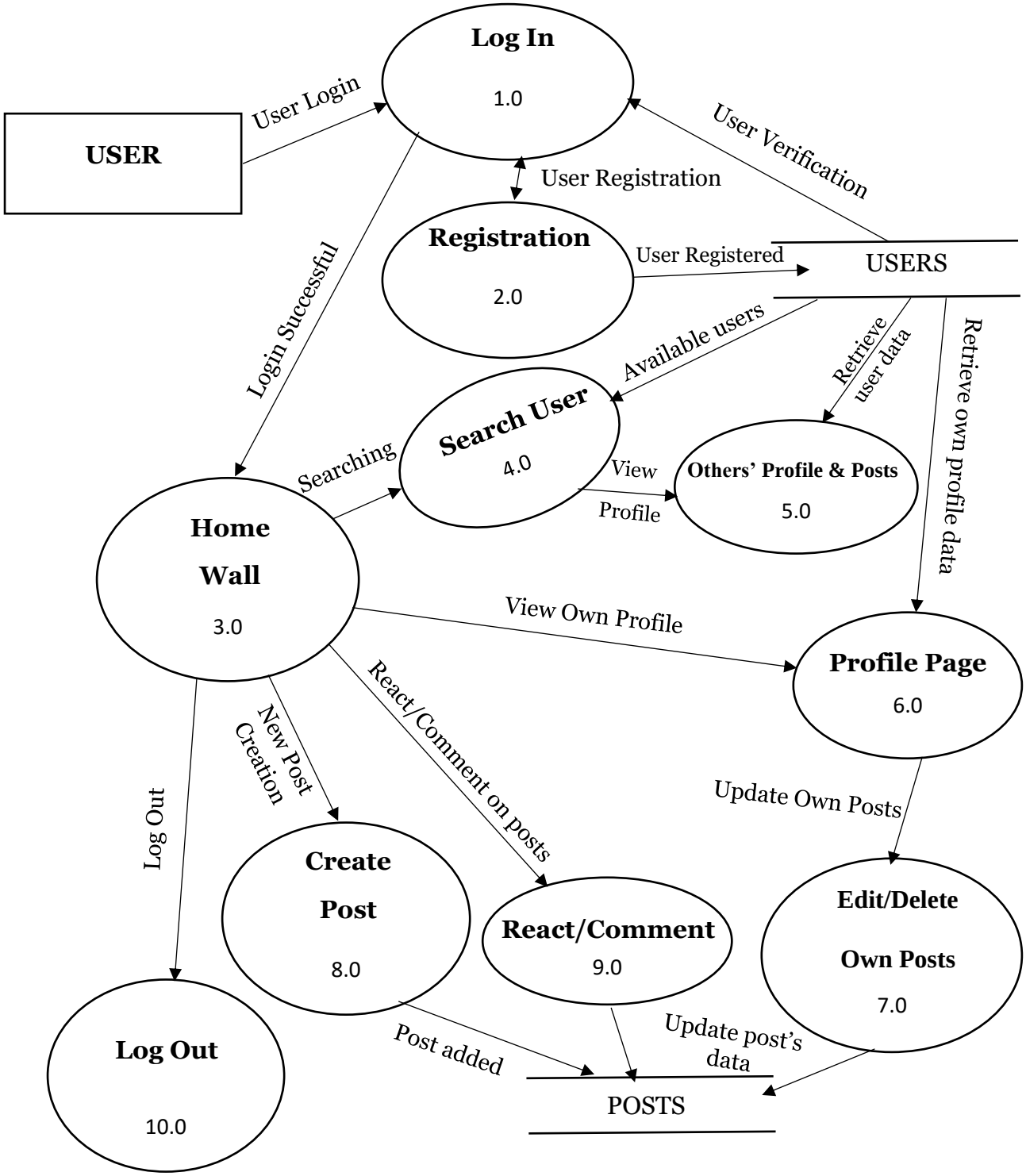


Figure 4.4.1 1 Level DFD (Communify)

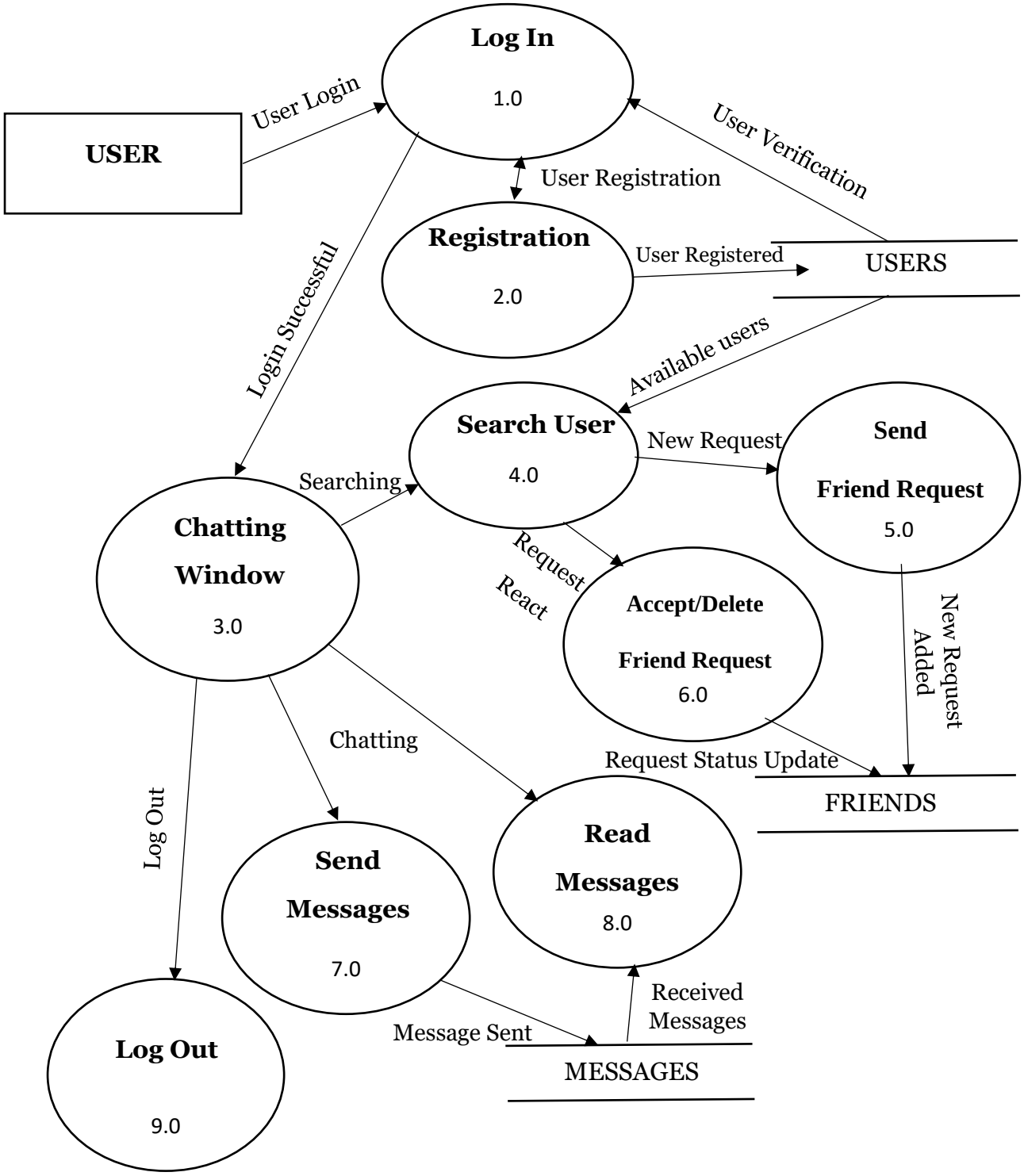


Figure 4.4.2 1 Level DFD (TalkE)

4.2.3 Database

Data base is used to store the relevant information of the individuals. A database is a collection of rows and columns in which rows indicates the tuple and column indicates the domain of table. Database design is the process of producing a detailed data model of a database. This logical data model contains all the needed logical and physical design choices and physical storage parameters. A fully attributed data model contains detailed attributes for each entity. The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of the logical design of the relation of the base data structures used to store the data. In the relational model these are the classes and named relationships. However, the term database design could also be used to apply to overall process of designing, not just the base data structure, but also the forms and queries used as part of the overall database application within the Database Management System (DBMS).

The **non-relational database**, or **NoSQL database**, stores data. However, unlike the relational database, there are no tables, rows, primary keys or foreign keys. Instead, the non-relational database uses a storage model optimized for specific requirements of the type of data being stored.

There are four popular non-relational types: document data store, column-oriented database, **key-value store** and graph database. Often combinations of these types are used for a single application.

Firebase Collections

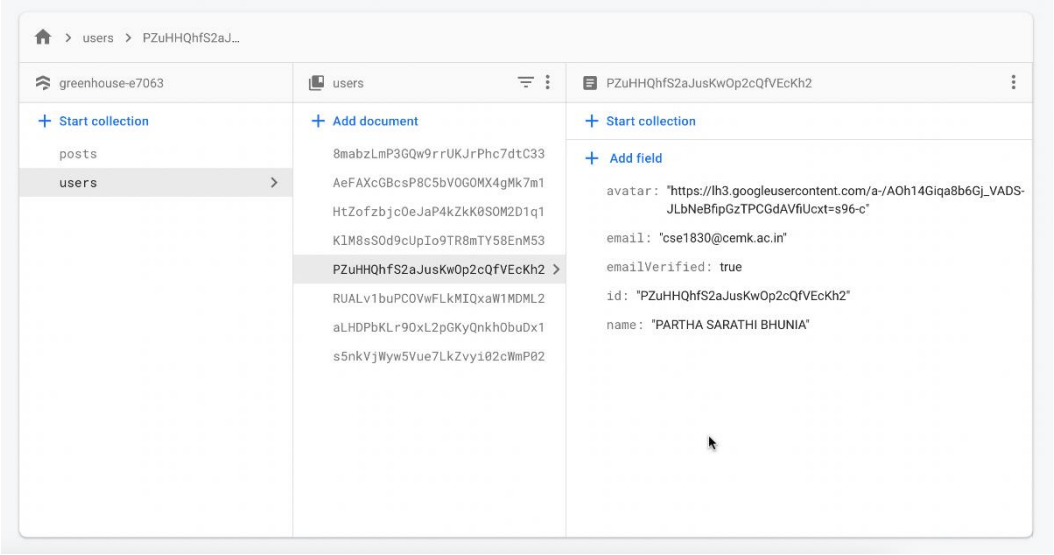


Figure 3.4 users collection

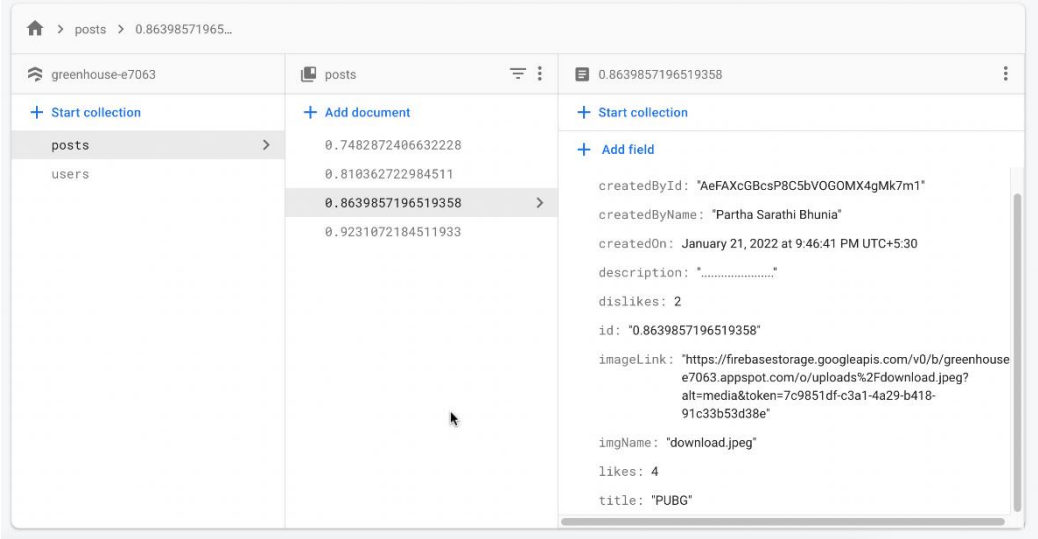
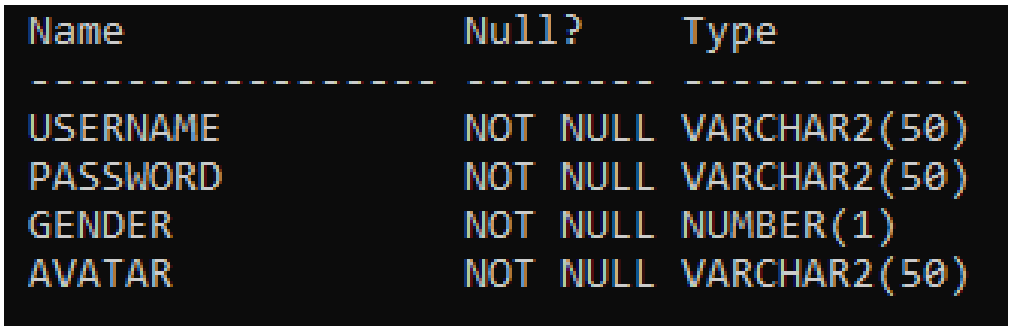


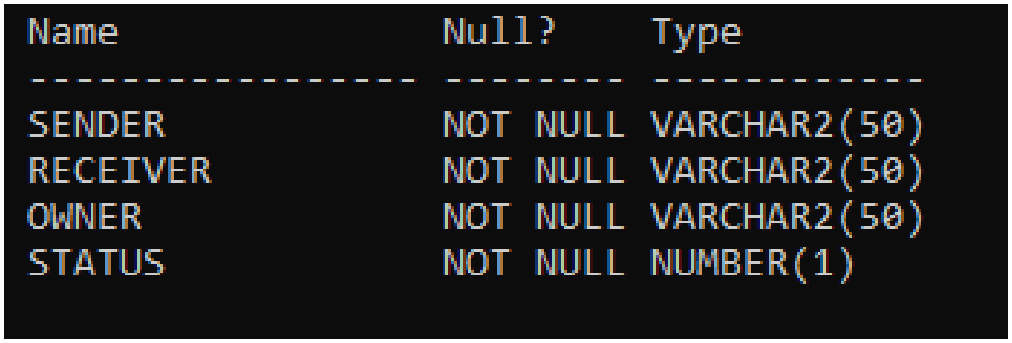
Figure 3.5 posts collection

Oracle DB Tables



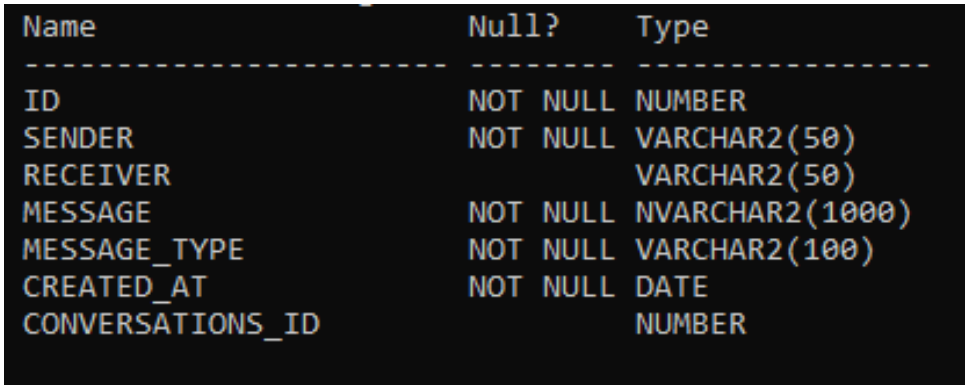
Name	Null?	Type
USERNAME	NOT NULL	VARCHAR2(50)
PASSWORD	NOT NULL	VARCHAR2(50)
GENDER	NOT NULL	NUMBER(1)
AVATAR	NOT NULL	VARCHAR2(50)

Figure 3.6 users table



Name	Null?	Type
SENDER	NOT NULL	VARCHAR2(50)
RECEIVER	NOT NULL	VARCHAR2(50)
OWNER	NOT NULL	VARCHAR2(50)
STATUS	NOT NULL	NUMBER(1)

Figure 3.7 friends table



Name	Null?	Type
ID	NOT NULL	NUMBER
SENDER	NOT NULL	VARCHAR2(50)
RECEIVER		VARCHAR2(50)
MESSAGE	NOT NULL	NVARCHAR2(1000)
MESSAGE_TYPE	NOT NULL	VARCHAR2(100)
CREATED_AT	NOT NULL	DATE
CONVERSATIONS_ID		NUMBER

Figure 3.8 messages table

5. WEB VIEW

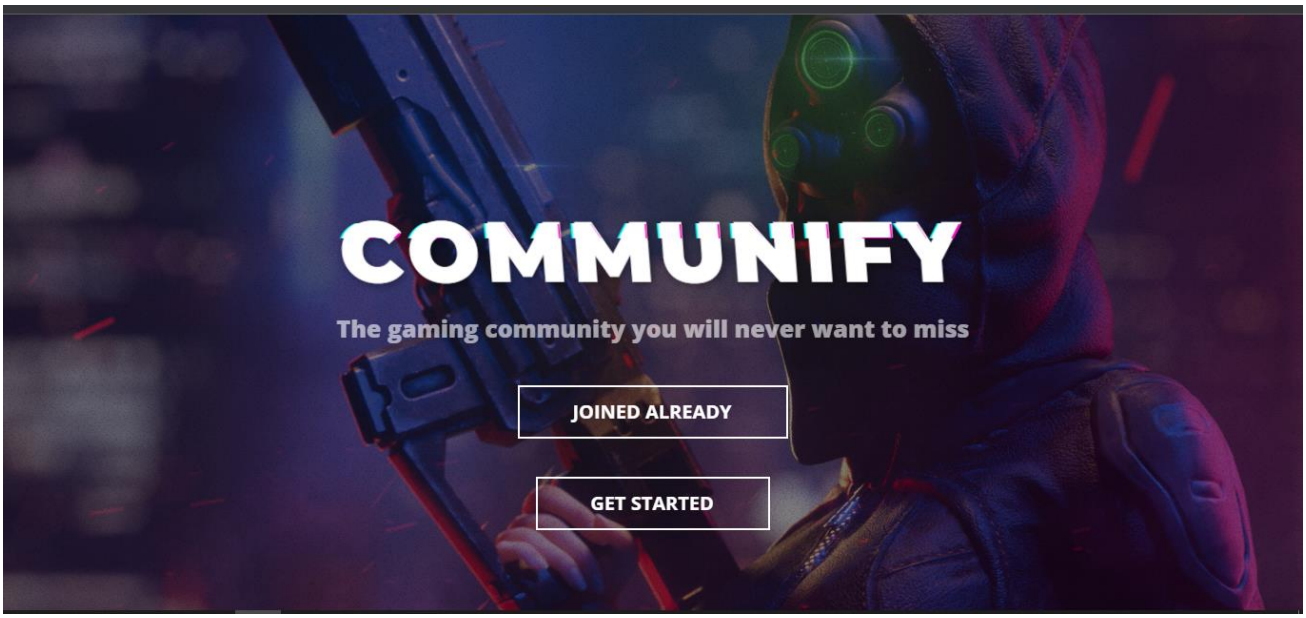


Figure 5.1 Landing Page

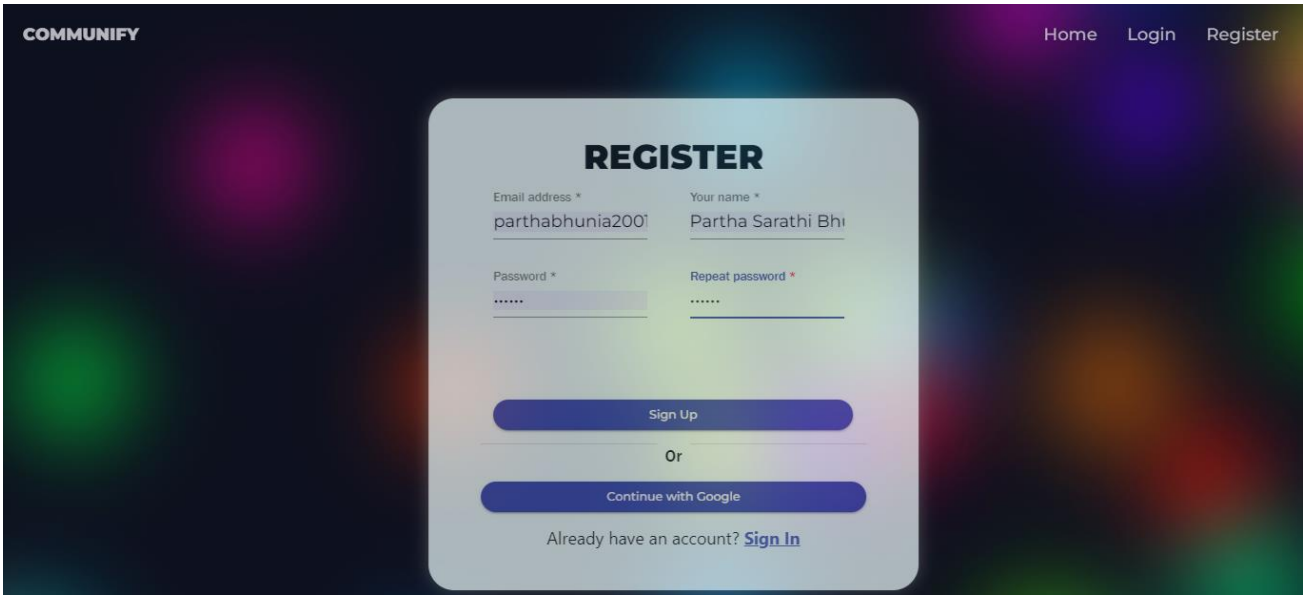


Figure 5.2 Registration Page

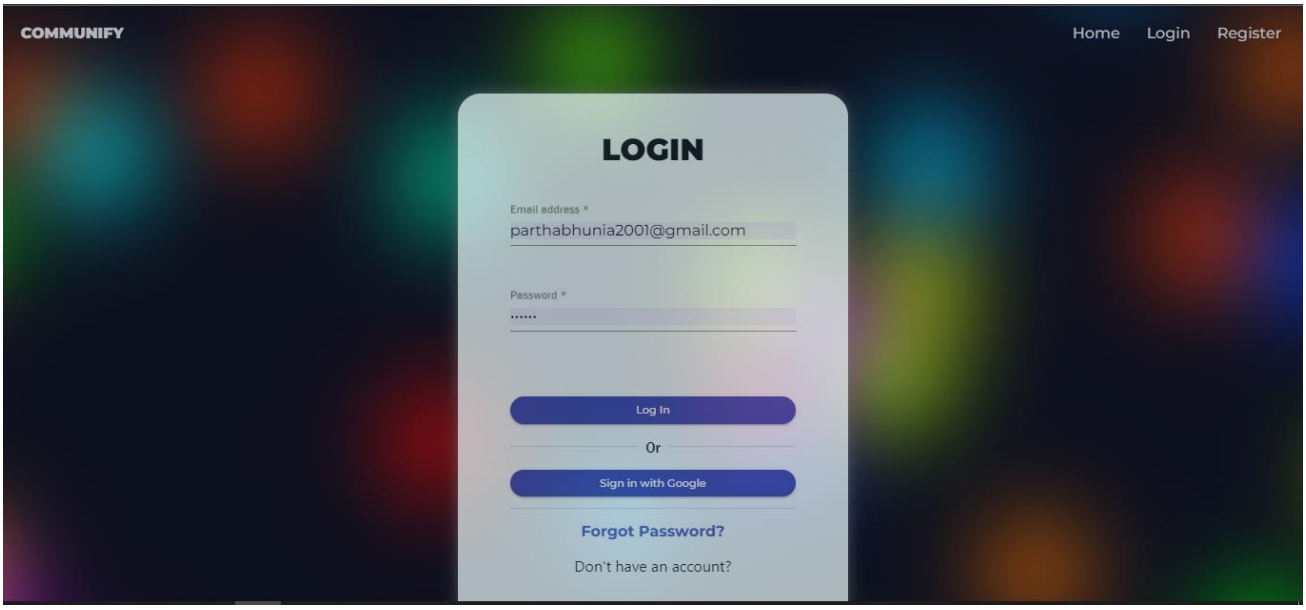


Figure 5.3 Login Page

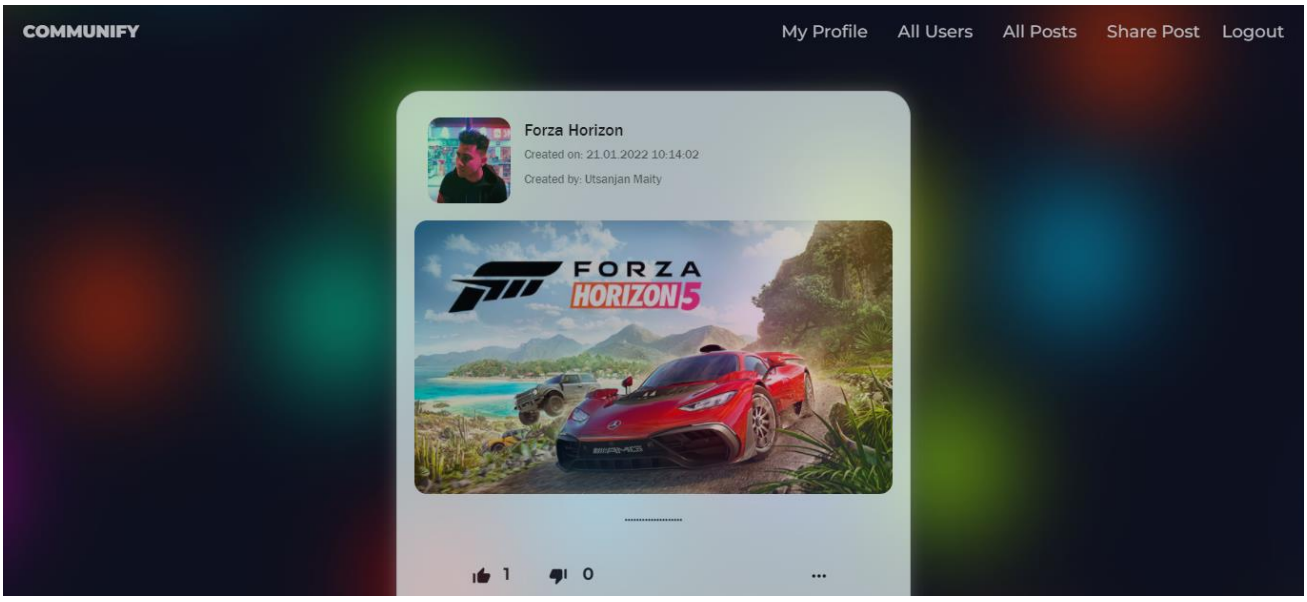


Figure 5.4 Post Wall

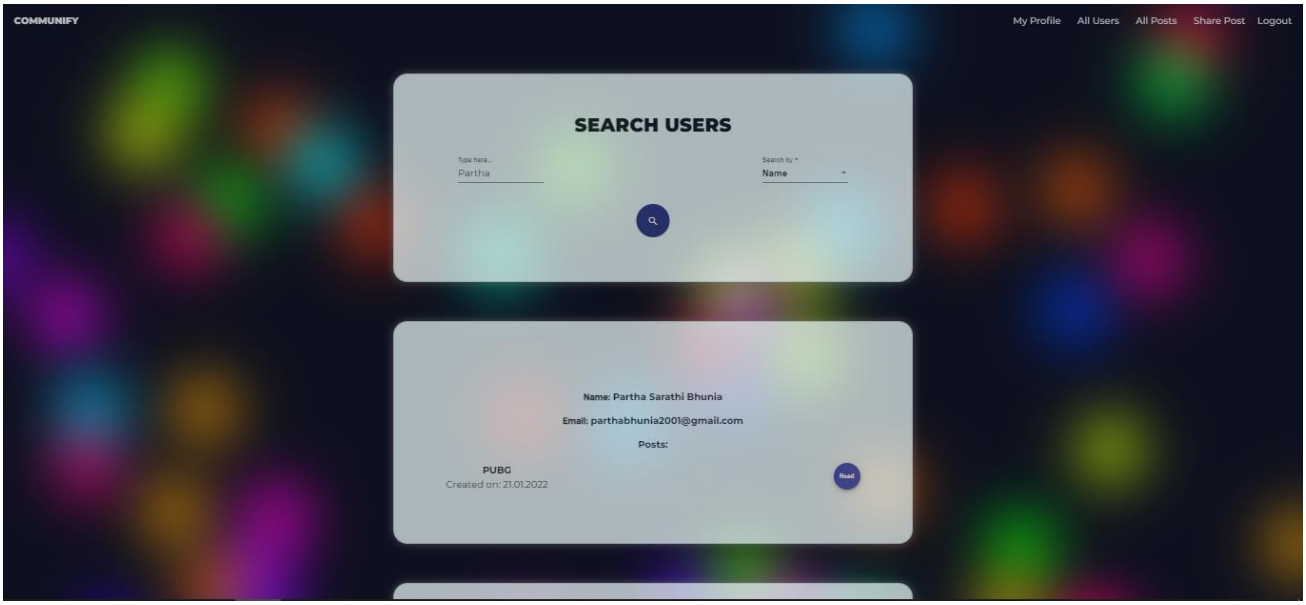


Figure 5.5 Search Page

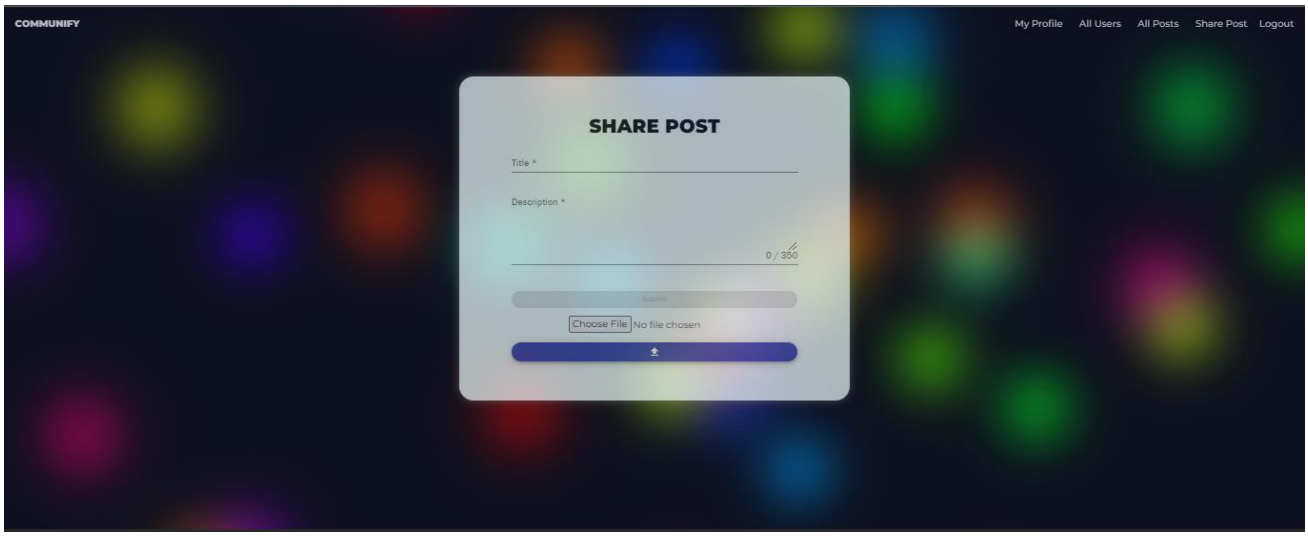


Figure 5.6 Create Post

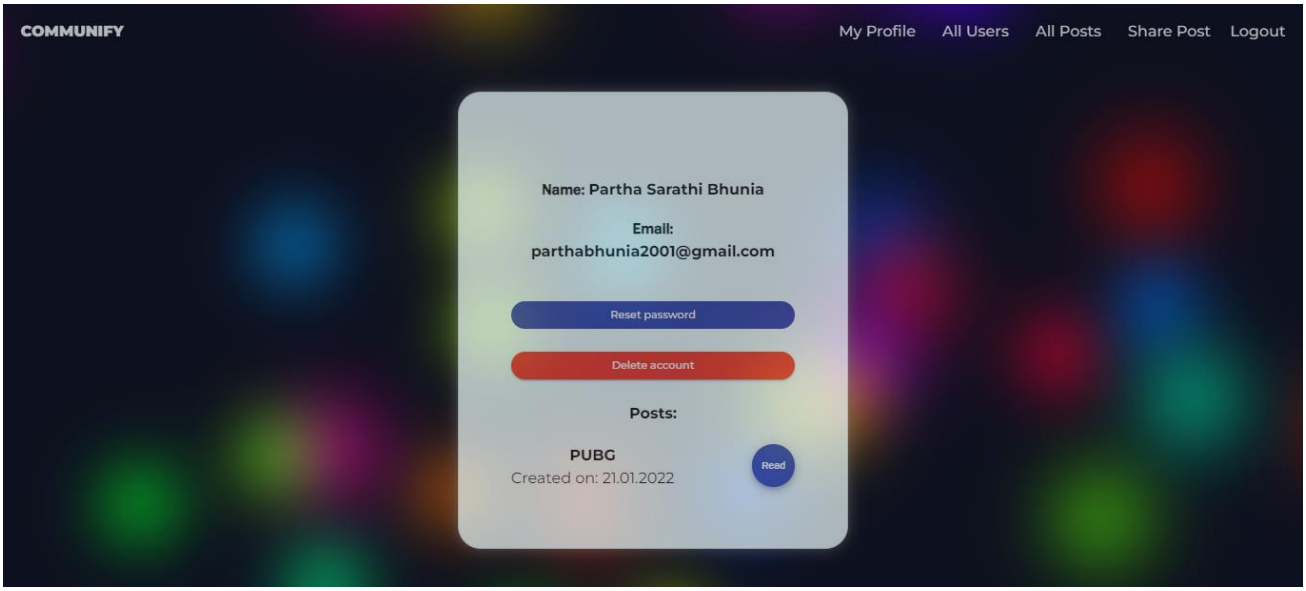


Figure 5.7 Profile

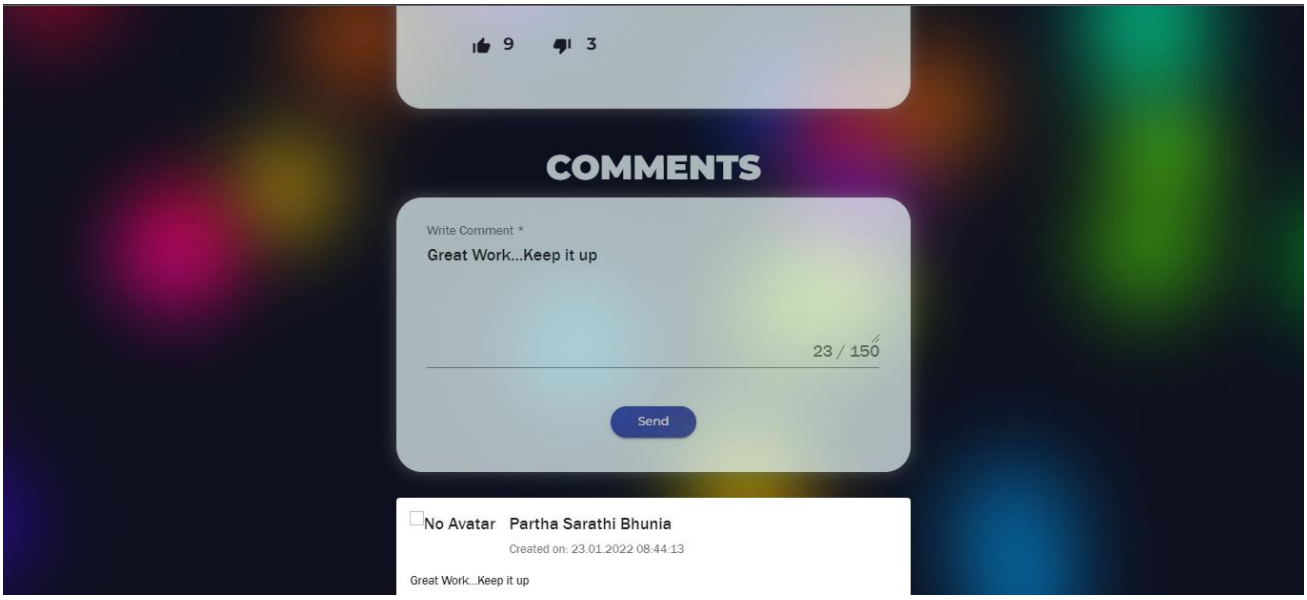


Figure 5.8 Post Comment

Figure 5.9 TalkE Loading Page

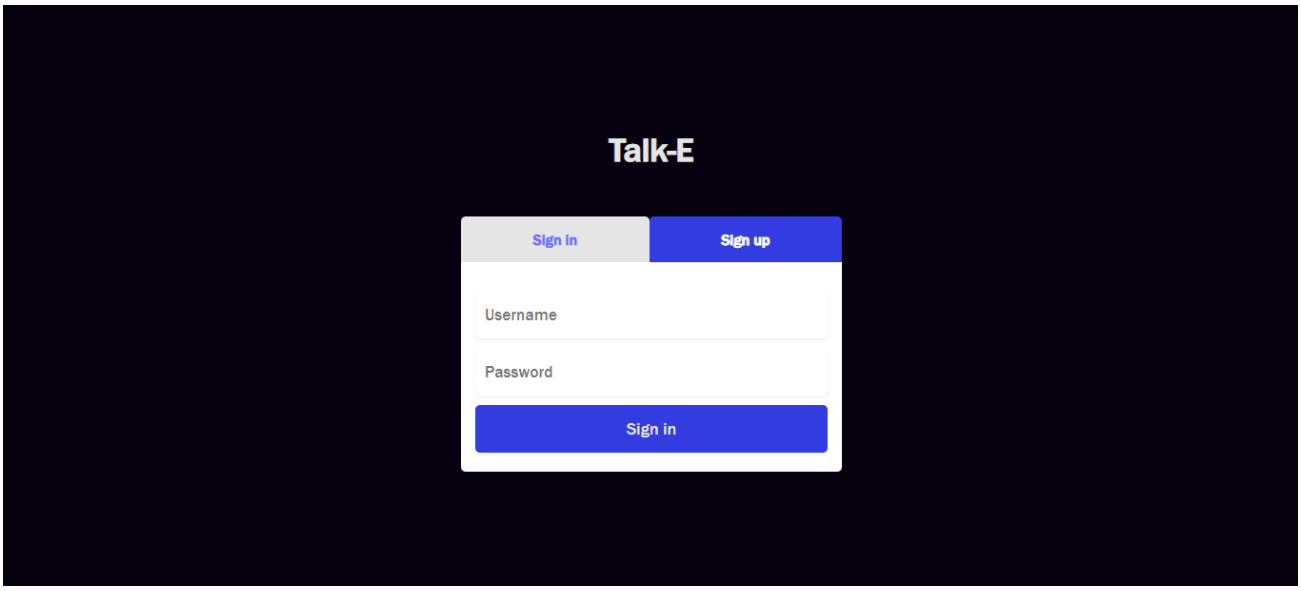


Figure 5.10 TalkE Login Page

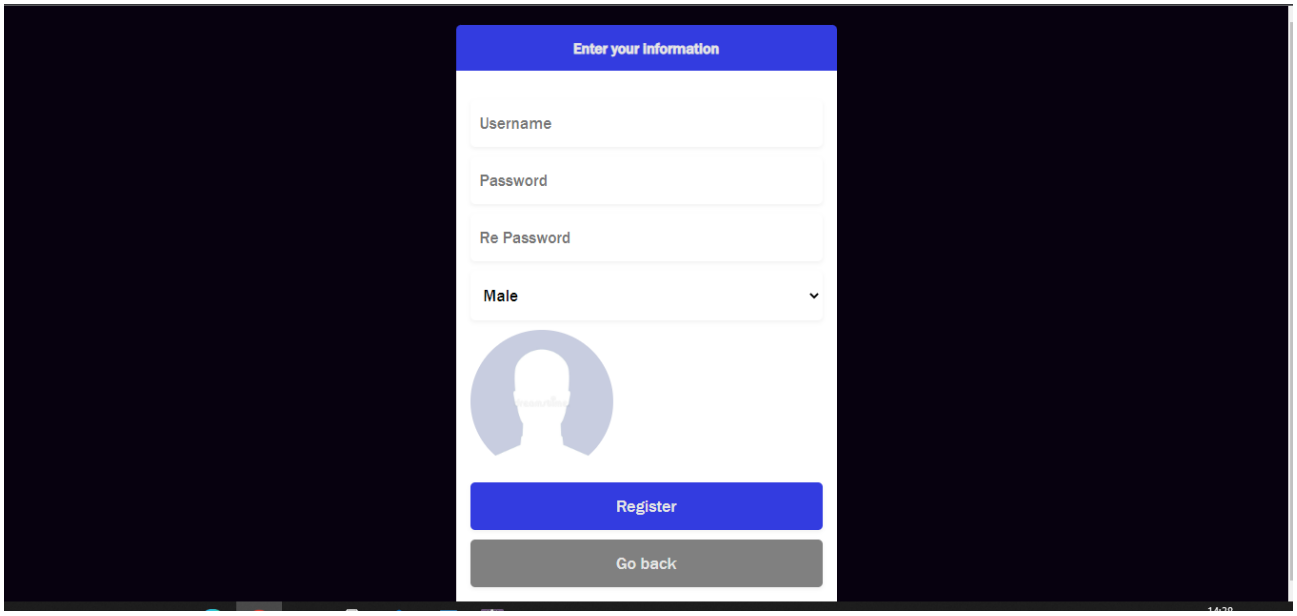


Figure 5.11 TalkE Registration Page

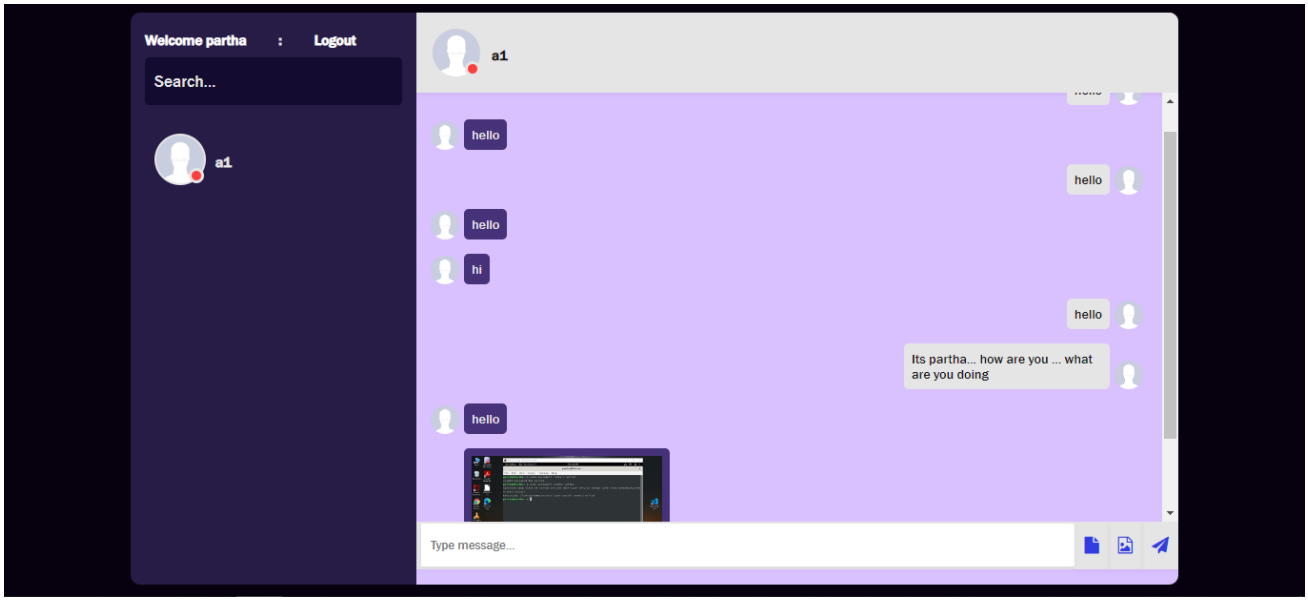


Figure 5.12 TalkE Chatting Window

6. TESTING

- A good test has a high probability of finding an error.
- A good test is not redundant.
- A good test should be "best of breed".
- A good test should be neither too simple nor too complex.

BLACK BOX TESTING:

The method of Black Box Testing is used by the software engineer to derive the required results of the test cases:

1. Black Box Testing allows to test that are conducted at the software interface.
2. A Black Box Test examines some fundamental aspect of little regard for the internal logic structure of the software.
3. A limited number of important logical paths can be selected and exercised.
4. Important data structure can be probed for validity.

Black box testing was performed to find errors in the following categories:

- Incorrect or missing functions
- Graphics error.
- Errors in data in binary format.
- Error in data in integer format
- File error.
- Pointer error.
- Memory access error.

- Variable error.
- Performance error

WHITE BOX TESTING

White Box Testing is sometimes called Glass Box Testing. Using White Box Testing methods, the software engineer can derive the following test cases:

1. Guarantee that all independent paths within a module have been exercised at least once.
2. Exercise all logical decisions on their true and false sides.
3. Execute all loops at their boundaries and within their operational bounds.
4. Exercise internal data structures to ensure the validity.

In White Box Testing efforts were made to handle the following:

- Number of input parameters equal to number of arguments.
- Parameters and arguments attributes match.
- Number of arguments transmitted is called modules equal to attributes of parameters.
- Unit system of argument transmitted is called modules equal unit system of parameter.
- Number of attributes and order of arguments to build in functions correct.
- Any references to parameters not associated to build in functions correct.
- Input only arguments altered.
- Global variable definition consistent across module.
- Files attributes correct.

- Format specifications matches I/O specification.
- Files opened before use.
- File closed while working is going on.
- 1/0 errors handled.
- Any textual errors in output information.

UNIT TESTING

The unit testing is performed to test the validity of the individual units. This is done in the coding phase with the interactive testing. Thus, it itself constitutes a majority of functionality test for each logical unit.

VALIDATION TESTING:

Tests were performed to find conformity with the requirements. Plans and procedures were designed to ensure that all functional requirements are satisfied. The software was alpha-tested. There are two goals in preparing test plans. Firstly, a properly detailed test plan. demonstrates that the program specifications are understood completely. Secondly, the test plan is used during program testing to prove the correctness of the program.

6.1 Test Cases

Registration

Sl. No.	Input Field	Test Case	Condition Checked	Result
1	Email	Empty	Email is required	Success
2	Email	Invalid	Enter valid email.	Success
3	Name	Empty	Your name is required.	Success
4	Password	Empty	Password is required.	Success
5	Password	Length	Password must be at least 6 symbols	Success
6	Confirm Password	Empty	RePassword is required.	Success
7	Confirm Password	Match	Your password don`t match.	Success

Login

Sl. No.	Input Field	Test Case	Condition Checked	Result
1	Email	Empty	Email is required	Success
2	Email	Invalid	Enter valid email.	Success
3	Password	Empty	Password is required.	Success
4	Password	Length	Password must be at least 6 symbols	Success
5	Login	Wrong email/password	The password is invalid or the user does not have a password	Success

7. CONCLUSION

While developing the system a conscious effort has been made to create and develop a software package, making use of available tools, techniques and resources that would generate a proper system for online networking site dedicated for gamers.

While making the system, an eye has been kept on making it as user-friendly. As such one may hope that the system will be acceptable to any user and will adequately meet his/her needs. As in case of any system development process where there are a number of short comings, there have been some shortcomings in the development of this system also.

There are some of the areas of improvement which couldn't be implemented due to time constraints. One such feature was online chat where members can chat with his friends through this website. We also couldn't implement the friend request feature for now but we still have few months to complete our degree, so we will definitely complete it in coming months.

8. REFFERENCES

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