G-Chat: A Game and Chat Application

Abdul Manaf[1,] Asma Yousef[2], Betty Paul [3], Shernas Nazer[4], Philo Sumi[5]

[1,2,3,4]*Student, Dept.of Computer Science and Engineering, ILMCET, Kerala, India*
[5]*Assistant Professor, Dept.of Computer Science and Engineering, ILMCET, Kerala, India*
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Abstract - *Usage of Smartphone is increasing day-to-day, today people are using smartphones for chatting, calling, browsing which helps to share information between people or to a group, also for gaming which provide an entertainment platform for people. It gives much entertainment to the users, but most of the applications are designed for its own specific purposes. The aim of the proposed system is mainly to design an application which fully entertains the users by providing two features(chatting and gaming) in a same platform, which make the user to meet and interact with others who play same game, And for those who want to do parallel chatting while gaming. Along with entertainment the proposed system also designed to increase IQ level of users, for that this system provides some quiz games (containing general knowledge, aptitude tricks, aptitude question...etc.).In this system, user have the permission to add any game and the admin will create a group for all(those who play that game). The users who play same game will added to a global group created by admin(Users can also create sub groups according to their wish). G-chat application provide games which can be played by challenging the co-players to defeat their high scores*

1. INTRODUCTION

Nowadays, chatting and gaming are the most popular entertaining part of smartphone. Children and adults are more interested in these activities (chatting and gaming). It provide entertainment and also help to spread message among large group of people. In the currently available applications, it is difficult to use both the chat and game at the same time, so we design this new system.

G-chat app provide a single platform for both chatting and gaming. In G-chat app, the user can share message, information to people and play single or multiplayer game. A person who visit this application is called Guest and once the guest become a registered user, he can create his own account to chat and play games as he/she likes. This application is made user-friendly and convenient to such an extent that the user is never required to type the same information more than once, except password. It provide entertainment to user for some time to recover from his/her stress. It is a chat application with gaming, game provided by this application is a quiz game, and user can also add games to the application according to their wish. This application provide full time entertainment and improve thinking capability of users. This system capable to work in web browser and as android system. There are three

modules user, guest and admin module, an admin can meets all the needs of the users. Once the guest (user) becomes a permanent user, he can create his own account and play games.

1.1 Objective:

The application provide same platform both gaming and chatting. User can chat at any time in the group or private chat is also possible. The users can challenge the co-players to defeat their scores, it will increase interest of the co-players to play the game more actively. G-chat application also provide quiz games which increases the thinking capability and IQ level of the players .It facilitate communication between users, which improve interaction between the players.

1.2 Literature Survey

Kavitha. R, Rupali Wagh [1] opined that usage of Smartphone increased more in the last five years. Presently there are lots of applications available on the Android market for chatting and information sharing. All these just share the message but won't provide any message status like the message is seen or not and if seen, it is accepted or not. In this paper, we proposed a new application called as "Shary" an Android based application developed using Android Kit Kat version 4.4. The main aim of this application is to share any last minute updated information to a specific group and receive the status of the messages. This application basically developed for two different users, one is for the Faculty and the other is Student. The Faculty can create the group by selecting the Students from different branches and can send the message to the created group and view the status of the message either the Student viewed, accepted or declined. The Student can respond the messages by selecting the option Accept or Declined.

Nikhil Chaudhari, Sushma Shinkar, Priyanka Pagar [2] opined that Social networking is the most common task performed by people. There are roughly 6,500 spoken languages in the world today. However, about 2,000 of those languages have fewer than 1,000 speakers. To help out with such problem our application is very beneficial and easy to use. We have achieved translating almost all the languages. Social networking is not only with text but also with images we have achieved to process the image for doing face detection and the expressions. Our image processing also helps you to crawl the internet for the. Internet uses hash

tags to categorize data. Over a billion images over the internet we can protect/inform you about any illegal usage of your image. With the help of same image processing we can also get the information about landmarks. We have managed to pull out all these features by using Google Cloud API and Google's Machine Learning
.

Qi Lai, Mao Zheng and Tom Gendreau [3] opined that one of the learning outcomes listed by ACM mobile computing education is to "Implement a simple application that relies on mobile and wireless data communications". This Android-based Instant Message Application is aimed to meet this outcome. Today more than 60 smart phones from major manufactures run the Android platform. All these numbers show that the Android project has gained momentum and has moved forward. In addition to its openness, all the tools in the Android development are free and no special hardware is required. The project is tested on an Android Emulator which is a tool that allows developers to easily test an application without having to install the application on a real device. The Android-based instant message application uses the client/server architecture. The client can add a registered user to be his/her friend and send or receive a text message while the friend is on-line. Currently, the communication in this application is using TCP.

Nikita Mahajan, Garima Verma, Gayatri Erale, Sneha Bonde, Divya Arya [4] opined that Bluetooth provides the communication on low-cost, low-power basis. Wireless communication can also be done with the help of Bluetooth technology in a mobile communication. Short-range establishment of two-way communication has occurred without any support of the network. Bluetooth is integrated into Android which is a mainstream Smartphone platform as a mean of mobile communication. Nowadays android becomes the latest technology in the Smartphone's which provides the open sourcing and powerful application API. Thus we design a chatting application based on android Bluetooth which establishes a connection between smart phones using Bluetooth and then messages are exchanged between them. Start Server will enable the Bluetooth on server side and active for the communication after scanning for the devices and choosing one of them for the communication. When server sends the message to client by entering into the text field and the pressing send Message button will send the above entered message to the client Server can also receive message. Start client will enable the Bluetooth on client side if not enable Receive will receive the message coming from the server side. The client receives the message as soon as the connection is established between the two devices. The client can also send message to the server or another device after the establishment of the connection. Bluetooth enables or provides the better improvement over the android devices. By receiving message from the server the similar connection can also be established within the same range. Area to be covered into the Bluetooth range is limited.

2. PROPOSED SYSTEM

G-Chat application is an entertainment application. This application aim to provide enjoyment to people, those who suffer stress, and a wonderful platform for chatting and gaming. User can chat, add games, create sub groups, play games using this application. It also provide a quiz game(general knowledge, aptitude) which helps to increase the IQ of the user . This application mainly developed in the android studio (android languages, java, java script) and the quiz game is developed using visual studio and unity (for scripting and displaying of game. User can also so invite their friends to play with them. G-chat assign a unique identification number for each user who have registered in this app. A user can login to this app using user name and password. When the user enter the user name and password, it checks the details stored in the database and the information given by the user is correct then he/she can sign into the application. When the person login into the application he/she can choose any game and give a character name instead of reviling user name. After selecting a game , user get added to chat group created by admin (admin is also a member) for that game and the user can create sub group (with particular members in that group). In this chat group, different colors are used are used to categorize admin and other members, so user can easily understand the dignitaries of various users, and official communication (chats) are allowed.
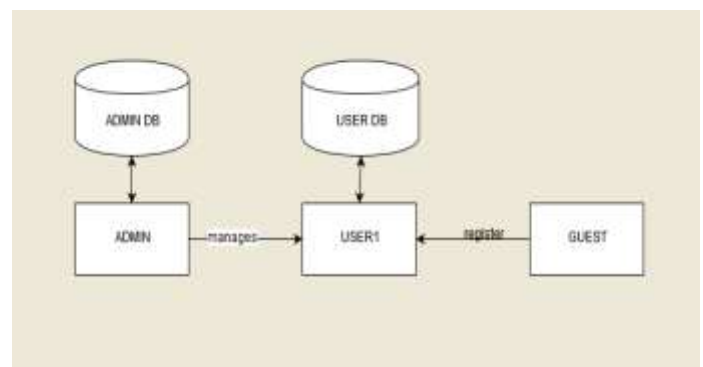

Fig-1: Over view of architecture

2.1 Applications of different modules

G-Chat application consist of three different modules admin module, guest module and user module. An admin can manage all the facilities provided to users, one who not registered in this application is guest, and guest have to register in the app to become a user and user can login to the app and add games, groups and chat with other users.

2.1.1 Admin module

The admin module includes all the activities related to the control of G-chat application . A web-based administration

area allows the admin to configure every aspect of the application. The admin can view and process all the functions and activities in the application. Administrator can manage all resource in the system. The admin has all the right to do anything in the system, all chats and group activities are controlled by admin. Admin filter out messages containing abusive words, it is very secure. Admin have total control over each and every functionality of the application.

View/add group: Admin adds a global group for each popular games in the store. A user may create subgroups inside these global groups. Only admins has the authority to create these global groups and users can view, join these groups. In short admin creates a global group and user creates subgroups in it.

View/add game: For each game admin creates global groups which each user playing that game is allowed immediate entry. For each game user may choose any name (similar like a username) all messages sent to a group will be under this username.

2.1.2 Guest Module

An unregistered user(Guest) has only limited access. Guest have to fill-up the registration page to register in this app. After successful registration he/she become a permanent user of the application permitted by the admin. Can play games, chat with friends and also invite friends to play or in to this application.

2.1.3 User Module

User module deals with all the user side controls. The user can log in to their account by providing the User-id and Password. The registered user can use the application at any time to play games and chat with their friends even outside the country. User can update their information, change password, view all the chats, gaming scores, challenge with their scores, accept and reject friends etc. It is very user friendly so, is easy to use. In short, the user gets complete freedom in chatting and gamming at every time.

Signup: For a guest (new user) to became the permanent user of this application he/she have to fill-up a registration by giving a username, password email Id, etc. (no personal information need to be revealed).

Login: A login is asset of credentials used to authenticate a user. Users can login to the application using username and password. By means of taking some security measures it prevent unauthorized access a to someone's account. If anyone(username or password) entered is wrong, then login will be failed.

Notifications: Notification page of G-Chat contains all the notifications to the user from admin. And also friend request, score sheet, accept friends, reject friends..etc.. Challenging

messages from other users will also will comes in notification page.

Game page: List of various games added and played will be shown in game page.

Chat page: List of Various groups and sub group, and personal chats are displayed in this page.

3. CONCLUSION

Chatting and gaming are most popular entertaining applications using Smartphone. G-chat is a web and android based application designed to provide chatting and gaming in same platform. Along with that, this application provide a quiz game that aim to increase IQ level of user. It provide the gamers a platform to meet other gamers, and share their experience and knowledge with them, and also challenge the other players with their high scores. G-chat is completely user friendly application, have taken lots of security measures, no need of revealing original identity, no age limit, can access at any time at any place.

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