



Enhanced Education Chat Application Based on Interested Keyword with Username and Password Authentication Security

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Abstract—We people are using a lot of website and chatting applications to instantly communicate with people. Nowadays mobile android OS, Windows OS and IPHONE OS is widely used by billions of people. As time is changing new technologies are also enhancing and communication of people became very easy. In this research paper we are introducing a web education chatting application based on interested keyword. The main purpose of this research paper is to creating a online platform where educationalist and all type of student such as research scholar and academics children can communicate each other in chatting box based on their interested keyword such as Mathematics, History, Sociology, Economics etc. If we filter keyword on typing history then a list of historian will be filtered and student can easily communicate on sending them text message and typing problems whatever they have. We are also providing Username and Password based authentication security to protect communication of teacher and student.

Keyword: interested key, chat server, instant messaging, chat windows

I. INTRODUCTION

With the day by day development of internet technologies, digital media has become very helpful to transmit their message from one place to another in few second, which is very helpful for us because we save our priceless time. In this proposed research paper we are introducing an idea where people can share their problem each other in a secret chat based on their interest keyword. Suppose you are solving some mathematics question and you are alone and suddenly you got any confusion on solving problem, for instantly solving this kind of issue we are introducing this research paper. In the development of this research paper we have come up with is to create a web chatting application which we'll not only communicate using text message but also figures and diagrams. This would be helpful for lot of research scholar and school/college going students. The primary focus of our research paper is to focus on interest based chat on keyword typed by the web app user. We'll protect chat done by the user using some security constraint, which are username and password. For getting username and password user need to create an account by typing needed information which is demanded.

II. SYSTEM FEATURE

The web application chatting which are providing need some features-

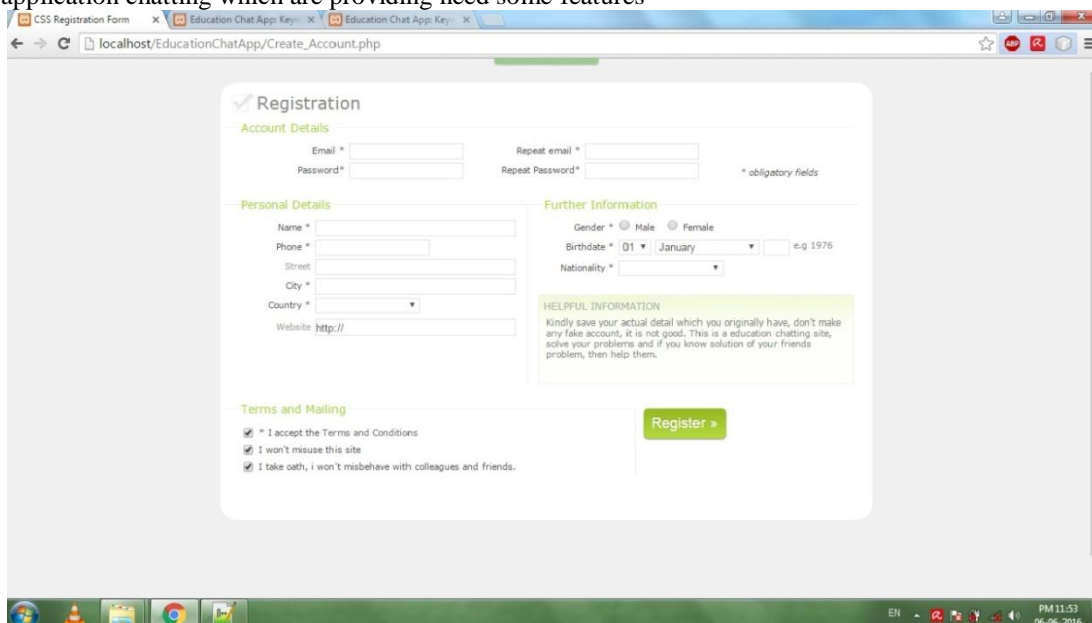


Figure 1: Creation of account

- **Create an account:** The user gives his some personal information such as full name, email id, date of birth, password, profile picture and most important mobile number. Our design coding technique will create a username and update in database.
- **Login and logout:** login feature will check the availability or non availability of user, if user is authenticated then will go ahead after login if there is no authenticated user then user need to create an account.
- **Handling users:** it allows admin to add or remove user account, if there is any fake account or user shows their bad behavior then admin has authority to remove his account from server.
- **Instant Messaging:** this is a regular feature of any chatting application, this chat app also provide group chat.
- **Drawing:** the application allows user to use the paint window within the chat to draw geometrical lines, figures and graphs.

III. LITERATURE SURVEY

A lot of Research has been carried out on chatting because it is important to know how much research has been done in chatting. Their description is as follows:

Avinas Bamane et al. proposed Enhanced Chat Application, in this research paper they added a new feature in chatting which is paint tool box, with the help of paint tool box now user can create their 2D Diagram such as line, triangle, rectangle, square etc. and then can send to their online chatting partner. In previous research technique there is no such kind of function in which user can write their own diagram so writer introduce this research.[1]

Maha Sabri Altemam proposed their research paper on Voice Chat Application using Socket Programming, in this research paper used socket programming to record their voice and later sending it to their communication partner, in this research paper he used text based chatting to if voice communication system became down then text chatting can be done.[2]

Nikita Mahajan et al. proposed their research paper on design of chatting application based on android Bluetooth, in this research and design of chatting application using android Bluetooth contains the text messaging through Bluetooth between the two android smart phones. [4]

IV. SYSTEM ARCHITECTURE

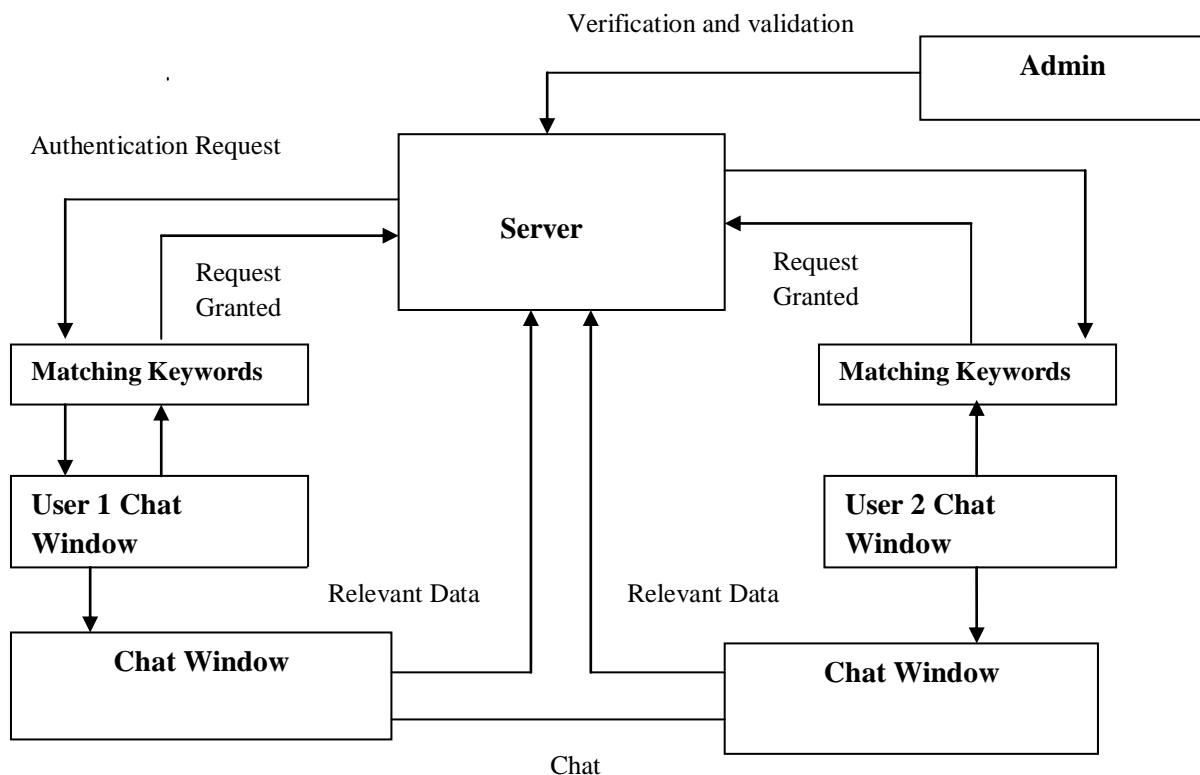


Figure 2: System Architecture Diagram

The web chat application would be accomplished on server client architecture within a Lan Network. The client server model of computing is a distributed application that partitions tasks between the resource provider or service called servers and service requesters called clients. Server side would always will be continuously running service listening to a different- 2clients enquiring its service. A Database of users would be maintained by the Server. When a client login to the application, the Server authenticates the user . Once the user is authenticated the IP address of the client is registered to the Server and it sends the list of online user friends and other relevant data to the Client. When the user wishes to chat to some other user, his IP address along with a Port address would be sent to the other user and vice versa. Thus a connection would be established and the two client PCs would be able to chat together.

V. SYSTEM FEATURE

The system that we have built encompasses the following features. The working and explanation of the features have been given.

1. Chat Server

The System that we have designed is based on client-server architecture. So creating a server is necessary. The functions of a server are to maintain user information, maintaining the record of users logged in to the system and providing the IP addresses to the clients who want to chat. In the Server side a server-socket is created which accepts connection from client those who have logged in. Once any user logs in and makes connection with the server, it is assigned a thread. Input stream and output stream objects are created in the run method. If the user has requested for registration then a new entry is added to the Database.

2. Interested keywords

When any student is solving mathematical problem or studying any other subject and he is getting any problem on any topic in such condition what should he do, for solving such kind of issue we are making a interested subject based chat application. Any body can make their account but he has to enter their interested subject name during account opening. This is a new technique for education chatting.

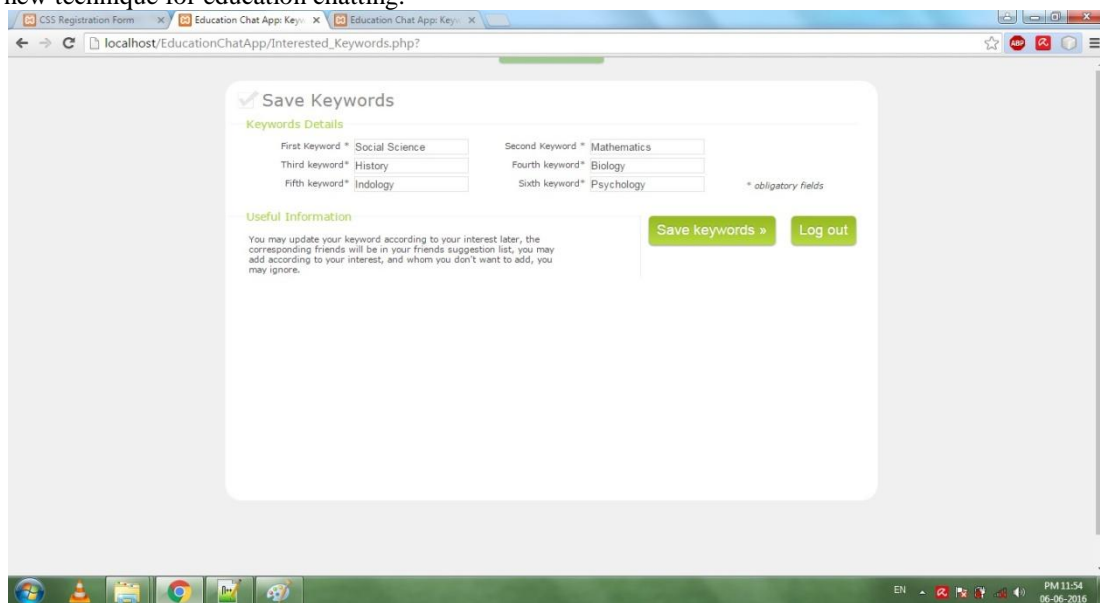


Figure 3: Saving interesting keywords

3. Messaging Chat

Users can send their message to their partners instantly. This has been accomplished by socket programming. The split window class gets the sending socket used for connection. Text messages are send through the socket, the key listener has been implemented on the bottom most window where a user write the message. On pressing enter key the text message is sent to the other user and displayed over the text area of both users.

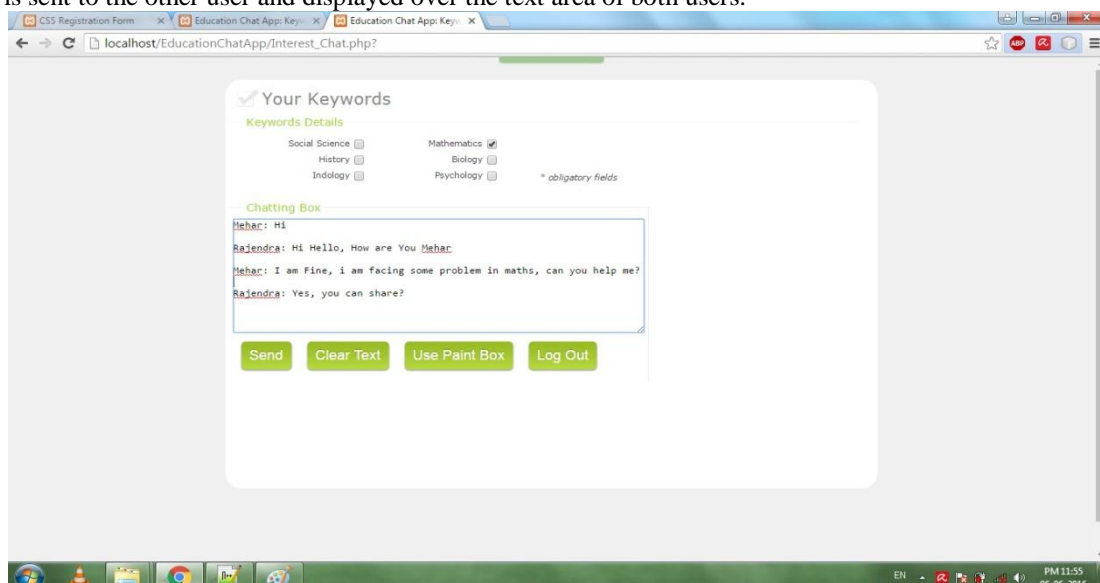


Figure 4: Chatting with friends on the behalf of interested keywords

VI. TOOLS USED AND OTHER REQUIREMENTS

a) Software tools used

1. PHP Language for executing the web application
2. mysql for storing the database of users
3. Editplus and Netbeans for coding the program

b) Hardware requirements

1. A local area network- can use switches, hubs and lan cables.
2. Two or more machines where the application could be run and one server machine.

VII. CONCLUSION

As the technology is enhancing users requirements are also increasing, chatting is a very common used application among the users. Generally users use instant messaging chat service to communicate other user. In our project we provided interest based chat where people can chat typing their interested keywords and a list of corresponding interested chat people will list out, this is a unique idea in education system. The chat web application is created to think the people could have a better experience of chatting. It has very potential to attract more and more to interact and connect each other.

Possible future works that need to be highlighted includes an update of security tools to the latest version and we also can implement a system in which file sharing could be possible.

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