Multi-User Chat Application and Assistant

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Abstract- *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. In chatting module, user needs system interaction at the time of chatting with others through public communication or private communication channel. In messages module, the users send instant messages which will appeared as a popup at the targeted user system. If the targeted user is not available it also store the offline messages.*

Preferences & Editing Options module, system needs user interaction when the user wants any editing options like copy, paste etc. It also allows the administrator to change the preferences of this application.

It provides a white board drawing facility using which the user can draw free hand, do circles, squares, lines, font text, or paste image files to the canvas.

This could be helpful to many of the professional institutions like schools, colleges, organisations and industries also. So we are going to design this application for LAN of these organizations. People could use many features of this multi-client chat application to communicate, forward information and brainstorm within a LAN. For this application we need design it on a Client-Server architecture.

Keywords- CSTR-PID-ZN-Fuzzy-MRAM-MATLAB.

I. INTRODUCTION

We are using many types of chat applications on web based, these applications are simple text or image forwarding. There is no option to communicate by making figures or free hand drawing.

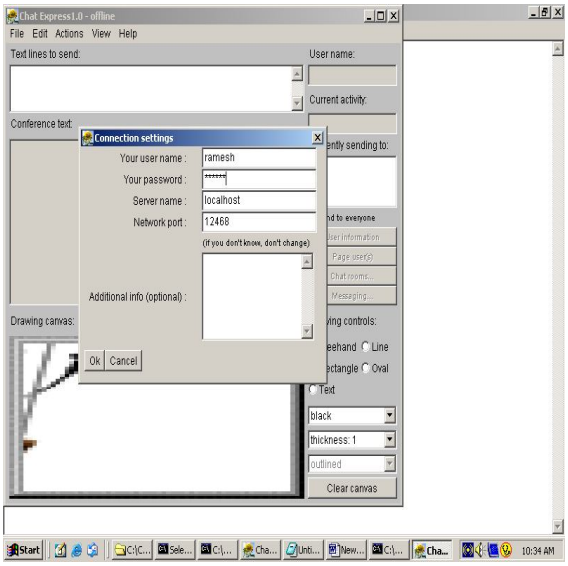
Now suppose two friends wants to discuss the geometrical problem and they are much far from each other. So these problem are not solve by communicating with simple massage transferring or sending the images or we can not solve this by any telephonic communication. These problem are solve by making figures like circle, rectangle, or draw some specific figure.
So the solution we have to come up with a chatting system through which we are not only communicate with messages but also send figures, draw specific diagrams.

Our this system of chat application helps to profesional, students, teachers, etc. This would also help to ordinary people also.

II. SYSTEM FEATURES

The Chat application we intend to design which provide us with the following features:

• **Creating an Account:** All the users makes their own account by giving their personal information such as ID, PASSWORD, etc. By using these users login or logout their accounts.

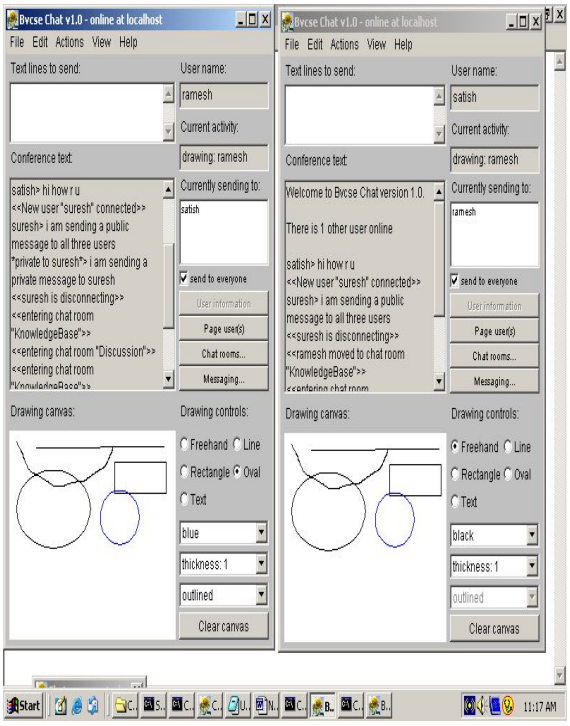


• **Login and Logout:** Login and Logout are the features to the presence of the users.

• **Handling Users:** The administrator have the right to add or remove the user from the application in any unexpected condition he found like termination, voilation, etc.

• **Instant Messaging:** This is the most common feature of every chat application. This is one of the way of communication between users.

• **Drawing:** Our application have the feature of using paint or make drawing like circle, triangle, or can be make free hand drawing also.



• **Painting and Coloring:** In this application user also use the different colours to fill the figures or make the figure by using colours. Different colours are available in the system.

III. SYSTEM ARCHITECTURE

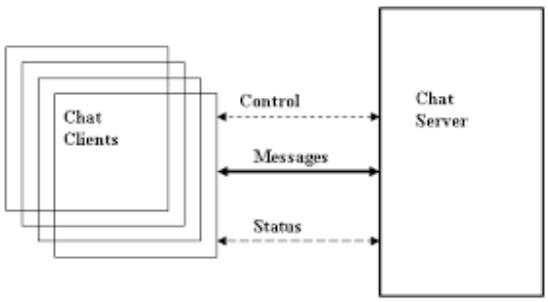


Figure 1: Chat Application Overview

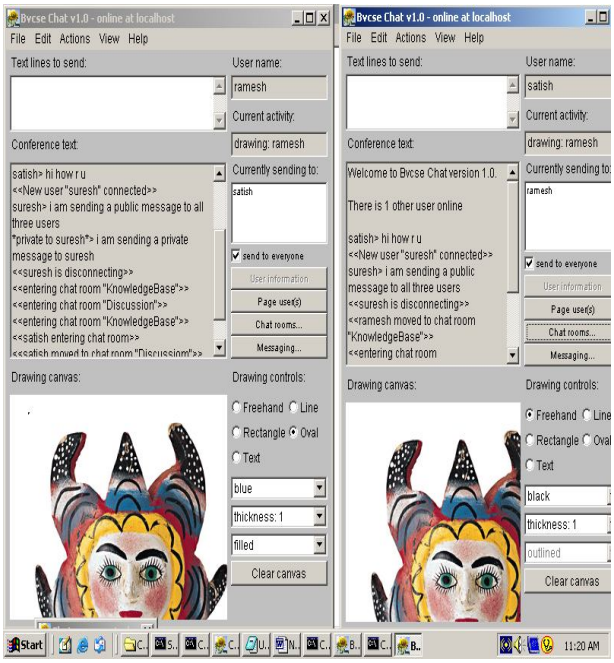
1) Chat Server: Chat server is a cross platform network solution with in an organization that internet technologies for better and easy communication. World wide, The most common internet technologies put to use within the organisation. Chatserver is completely runs by web's hypertext system.

It completely developed using the object oriented, multiplatform programming language java, which is fully featured with network support. The ease of network programming in java makes chat server best of its kind.

2) Client: A client is any process that requests specific servicess from the server process.

3) Server Side Application: Server side application is used to get the message from any client and broadcast to each and every client. And this application is also used to maintain the list of users and broadcast this list to everyone.

4) Client Side Application: For creating the Client side application firstly creates the login frame it consist one textfield and the login button. After hitting the login button it shows the next frame that Client Frame and it consist one textfield for writing the message and one send button for sending it. And two list boxes, one is for showing the all messages and another list box is use to show the all user names. This frame has one more button that is Logout button for terminating the chat.



IV. CONCLUSION

Chat System is an application developed according to client requirements. Lot of efforts was put to make it perfectly and efficiently. The developed system is tested with real data and the users are satisfied with the performance of the system and reports.

This project is developed using JAVA, JFC-Swing and AWT. By using this application we can communicate with different people using different of channels across different departments in our organization. It saves our employees and company time and resources. By this lot of workload will be reduced to the each employee to communicate with other employee and get things early. This application is very useful for Administrating efficient user friendly communication system. It provides extendibility also. So you can add your modules to the system whenever there is a change in business logic or new business

units are entered. This reduces the physical work, time as well as money saved. The time for sending the problems and getting the solutions is considerably reduced. All the features are implemented and developed as per the requirements.

REFERENCES

[1] Software Engineering by K.K. Aggarwal & Yogesh Singh, New Age Publishing House, 2ndEd.
[2] IEEE Recommended Practice for Software Requirements Specifications ± IEEE Std.830-1998
[3] IEEE Standard for Software Test Documentation ± IEEE Std.829-1998
[4] http://www.java2s.com/Code/Java/JSTL/SimpleChat Application.htm
[5] http://www.codeproject.com/KB/java/java_applet_chat_with_gui.aspx
[6] Azab, A., P. Watters and R. Layton, 2012. Characterising Network Traffic for Skype Forensics. Proceedings of the 3rd Cybercrime and Trustworthy Computing Workshop, Oct. 29-30, IEEE Xplore Press, Ballarat, pp: 19-27. DOI: 10.1109/CTC.2014.16