Name: Omkar Ingale
Roll no: AP18110010067
Section: CSE-B

Report On Private LAN chat messenger

ABSTRACT:

This is a LAN messenger application which can be used for private conversations on a private network without internet. It is a Client – server application program developed using Object Oriented Programming in Java and Socket Programming, focused on the implementation of architecture within TCP/IP. Here the individual can chat with other individuals through LAN connection. This application provides low-cost communication between a particular group or organization.

INTRODUCTION:

LAN chat messenger is a chat system via Local area network where the owner of the server can decide who can enter the chatroom or not. The advantage of using a simple LAN messenger over a normal instant messenger is that no active Internet connection or central server is required - and only people inside the firewall will have access to the system. The function of the system includes sharing text messages in future furthermore functions can be included.

LAN messenger is an easy to use, server based LAN messaging application for effective communication. It is correctly identified and works under all operating systems with unlimited user accounts and is the only secure messenger. The simple interface makes special training needless.

LITERATURE REVIEW:

The LAN Messenger uses client server architecture. The application handling is completed separately for database queries and updates and for business logic processing and user interface presentation. Generally, the networks bind the back-end of an application to the front-end, though all tiers can be present on the same hardware. The architecture of any client/server situation is by classification at least a two-tier system, the client is the first tier and the server is the second.

The two-tier design generally encompasses client demanding services undeviatingly from server i.e. client communicates alongside the server without the help of another server or server process. Two sockets are created at the client side and the server side. The client connects to the server through its IP address and port number. They must share the same port number for them to communicate. The client and the server both communicate through a stream of bytes written to the socket. The client and the server must agree on a protocol (TCP, UDP or RAW) and agree on the language of the information transferred back and forth through the socket. This study used the socket concept to collect messages. Basically, the message sent by one staff into a socket and passes it to another staff on the receiving side. If it is group chatting, a central socket will be used to collect the message and then it will be broadcast to all staff that are active.

PROBLEM STATEMENT:

This project is to create a chat application with a server and users to enable the users to chat with others without internet over a secure private LAN.

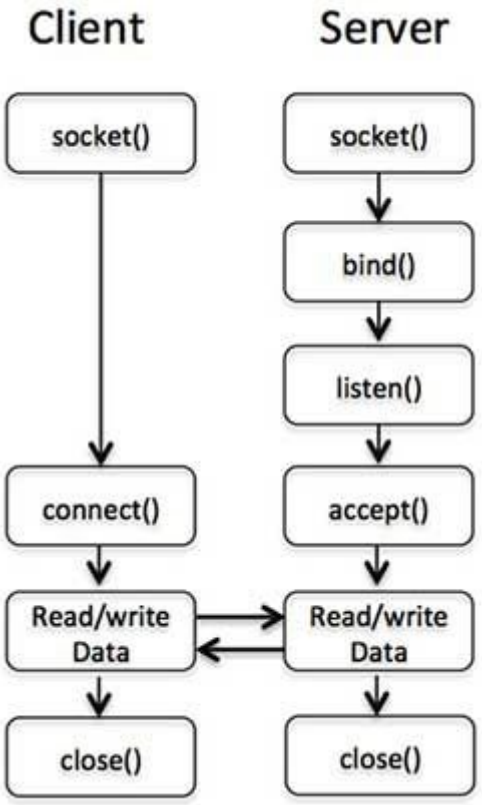
To develop an instant messaging solution to enable users to seamlessly communicate with each other.

User Friendliness: the project should be very easy to use enabling even a novice person to use it.

PROPOSED SYSTEM:

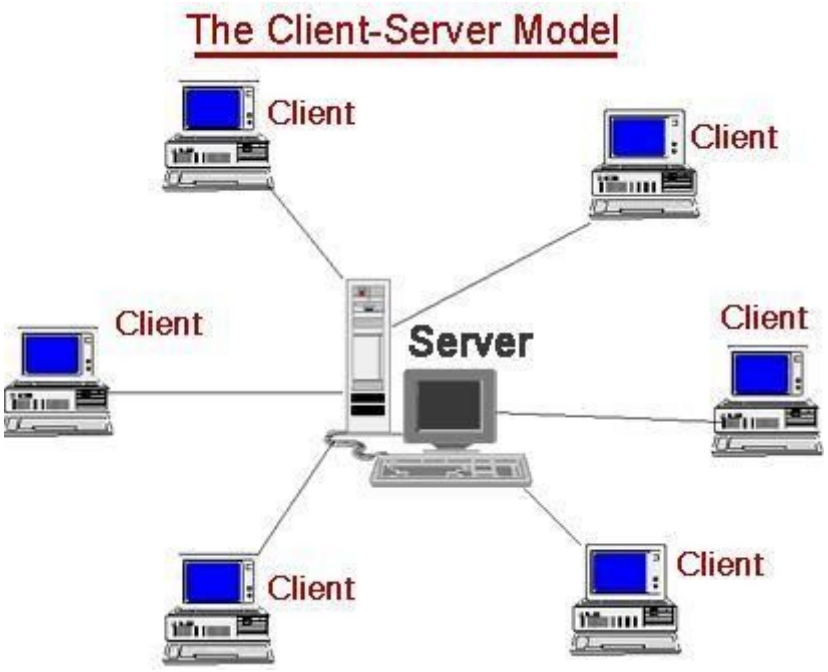
1) How Chat Communications Work

Two sockets are created at the client side and the server side. The client connects to the server through its IP address and port number. They must share the same port number for them to communicate (Reid, 2004).The client and the server both communicate through a stream of bytes written to the socket. The client and the server must agree on a protocol (TCP, UDP or RAW) and agree on the language of the information transferred back and forth through the socket. This study used socket concept to collect messages. Basically, the message sent by one staff into a socket and passes it to another staff on the receiving side. If it is group chatting, a central socket will be used to collect the message and then it will be broadcast to all staff that are active.



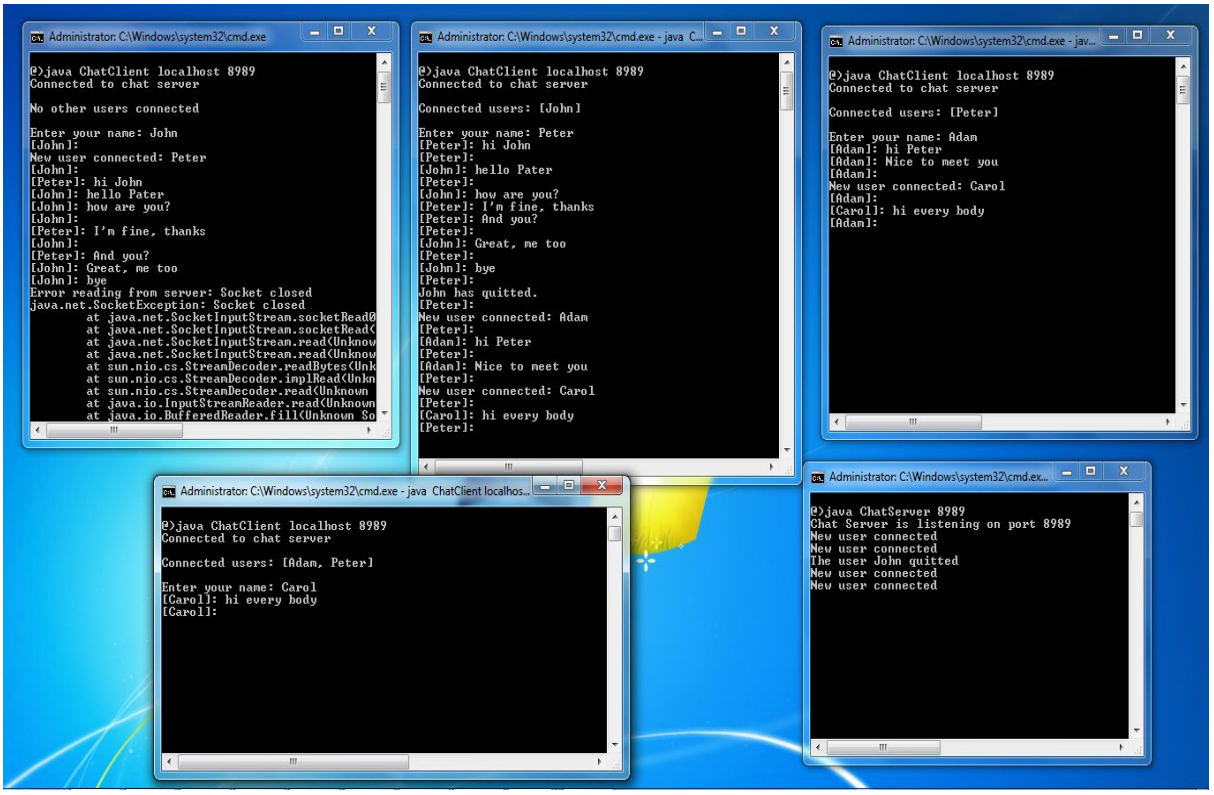
2) Network

Client/server network was used to implement the LCM because of the central administration, scalability any component or client can be upgraded when required, flexibility – new technology can be integrated into the network should the client increase



RESULTS:

Following image shows 4 connected clients texting each other:



CONCLUSION:

The proposed system enables users to communicate on networks outside internet boundaries. LAN Messenger can be integrated in other application areas such as in school, university and public libraries for communication between library patrons and librarians, in business offices, scientific organizations, and the academe, to mention a few. The proposed system can be a future replacement for many internet chat applications and will cost the organization lesser resources to implement.

REFERENCES:

Chandra, S.Y and Kumar, S.S (2009). An Introduction to Client/Server Computing, New Age International Publishers, New Delhi.

"TCP/IP Sockets in C: Practical Guide for Programmers" by Michael J. Donahoo and Kenneth L. Calvert.

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