PROJECT NAME-

Chat Appliaction

IIT RAJASTHAN

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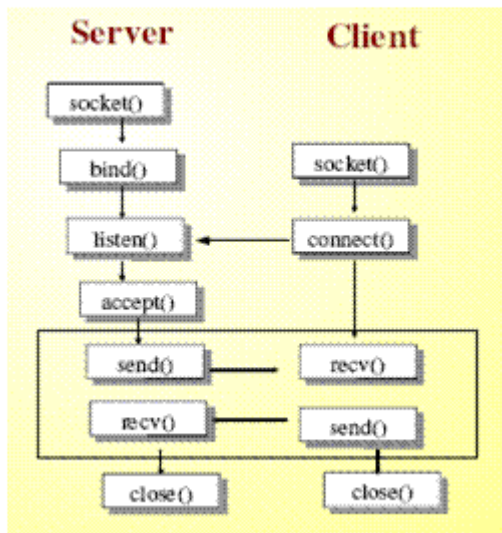   UG201010043

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1. <u>What are Sockets?</u>

Socket: An interface between an application process and transport layer .The application process can send/receive messages to/from another application process (local or

remote)via a socket

Sockets are interfaces that can "plug into" each other over a network. Once so "plugged in", the programs so connected communicate. A "server" program is exposed via a socket connected to a certain /etc/services port number. A "client" program can then connect its own socket to the server's socket.

"Client" socket is an endpoint of a conversation, and "server" socket is more like a switchboard operator.

Sockets are by far the most popular forms of IPC (Inter Process Communication).
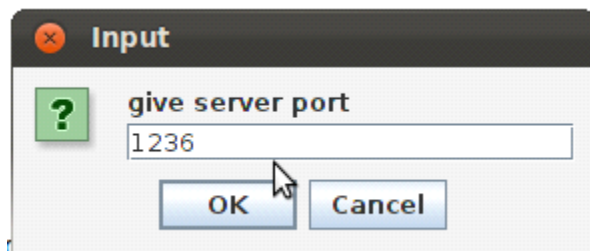

2. <u>Project introduction</u>

Exchange of urgent messages and information is very crucial in today's world and demands electronic based communication. This application is based on communication and networking and provides client to client communication through the server and exchange information among group members.

The project is a basically the chat application in a way that like one can chat with someone using the same application on some other device. Multiple members can be selected at a time to chat.
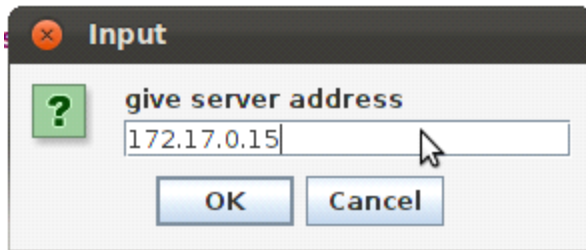
GETTING STARTED

- For the following application, make sure to download and install JDK1.2 or JDK1.3 - also known as Java 2. The latest Java Development Kit can be downloaded here.

- In order to initiate a TCP (**Transmission Control Protocol)** session, a server and a client are required. Firstly, a server is set up to listen at a given port. The server waits and does nothing until a client attempts to connect that port.

- After you have downloaded JDK you can run the runnable jar file and a dialogue box as shown below will appear.
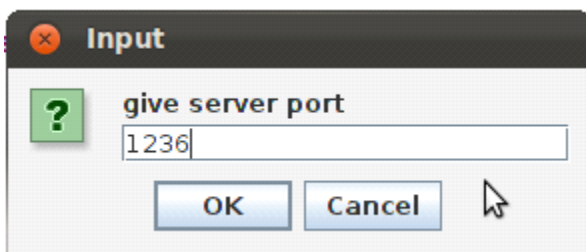

- You will then be asked to provide the port number on which you want to run the server.
- Now the server is running and any number of clients can connect to it.

Instructions to establish a connection to the server for client

- The client also have a separate jar file which can be run and the below dialogue box asking the IP address of the machine on which the server is running will appear

•After you have entered the address click on OK and another dialogue box will appear asking the port number of the server

• After entering the server port clicking on OK .

•The connection between the client and the server is now established. The application console will now appear and you can see all the other on-line users and is ready to send and receive important messages/notices .

•There is also an another dialogue box will appear asking the file location(Chat is going to save in that folder) on client side.

ADDITIONAL FEATURES-

You can select the number of users you want to send the notice/message to and other users will not be able to see it.

The Server process listens at port number specified and we have used loopback address for the Server so that you can run the server and the client in different terminals in the same system to test your server.

There is an open button on clicking it you will see the folder in which you will see your chat file with name { your login id + ".txt" }

There is an save button on clicking it, program will send a copy of your chat file to the server.