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Report

Chat-Application

* Project
* Methods / Liberaries Used in Project
* Functionality

Project

The project is on a chatting application where there is a server and a client interacting with each other with the help of Graphical User Interface…

The connection was made using multithreading and socket programming.

**Use Socket Programming in Java:**

A socket is **one endpoint of a two-way communication link between two programs running on the same network**. A socket is bound to a port number so that the TCP layer can identify the application that data is destined to be sent to. An endpoint is a combination of an IP address and a port number.

ServerSocket Class:

The ServerSocket class can be used to create a server socket. This object is used to establish communication with the clients.

Methods/liberaries Used In Project

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.KeyEvent;

import java.awt.event.KeyListener;

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.io.PrintWriter;

import java.net.Socket;

getInputStream() : This method returns the input stream for the socket.

getOutputStream() : This method returns the output stream for the socket.

accept(): The accept() call **creates a new socket descriptor with the same properties as socket and returns it to the caller**. If the queue has no pending connection requests, accept() blocks the caller unless socket is in nonblocking mode.

flush():

isClosed():This method is used for terminating a socket

InputStreamReader() : InputStreamReader is a bridge from byte streams to character streams: **It reads bytes and decodes them into characters using a specified charset** .

Java BufferedReader: Java BufferedReader is **a public Java class that reads text, using buffering to enable large reads at a time for efficiency, storing what is not needed immediately in memory for later use…**

BufferedReader is a Java class that **reads text from the input stream**…

This makes input faster.

ReadLine(): The readLine() method of BufferedReader class in Java is **used to read one line text at a time**. The end of a line is to be understood by '\n' or '\r',...

* We have also used threads in the project for reading and writing simentenously

Functionality

It is a Normal Chatting System where you can send and receive messege .

New Changes in Chat-Application And code…

1. First change is GUI of whole application With Function

2. Add Client And Server Images With Names

3. Add Back end IP addresses to run with end to end connection.

4. Add GUI Libraries.

5. Add Name Of Client.

6. Add Image of Images