**Chatting Application**

**Introduction**

Chatting Application is a desktop-based application. This client server chat application is based on java swing and used socket package. it’s simple and easy and require only core java knowledge. I have taken this program from internet and modified a little bit to make it simpler and more elegant.

This application/program is a good example of using java.io, java.net package to create a chat application. A beginner of java language, who is familiar with this package can able, be beneficiate.

Chatting is a method of using technology to bring people and ideas   “together” despite of the geographical barriers. The technology has been available for years but the acceptance it was quite recent. Our project is an example of a multiple client chat server.

 It is made up of 2 applications the client application, which runs on the user’s Pc and server application, which runs on any Pc on the network. To start chatting client should get connected to server. We will focus on TCP and UDP socket connections which are a fundamental part of socket programming.

**Keywords:** sockets, client-server, Java network programming-socket functions, etc.

**AIM**

The aim of this project is to express how we can implement a simple chat application between a server and a client? The application is a desktop-based application and is implemented using Swing and AWT. The project is developed in Java SE language executed on a single stand-alone java across a network using loop back address concept.

**User Interface**

* The user interface required to be developed for the system should be user friendly and attractive.
* There are two sets of Java APIs for graphics programming:
* AWT (Abstract Windowing Toolkit) and Swing.
* AWT API was introduced in JDK 1.0. Most of the AWT components have become obsolete and should be replaced by newer Swing components.
* Swing API, a much more comprehensive set of graphics libraries that enhances the AWT, was introduced as part of Java Foundation Classes (JFC) after the release of JDK 1.1. JFC consists of Swing, Java2D, Accessibility, Internationalization, and Pluggable Look-and-Feel Support APIs. JFC was an add-on to JDK 1.1 but has been integrated into core Java since JDK 1.2.

**Conclusion**

I Developed network applications in Java by using sockets, threads, and Web services.

This software is portable, efficient, and easily maintainable for large number of clients. Our developed web-based chatting software is unique in its features and more importantly easily customizable. The java.net package provides a powerful and flexible set of classes for implementing network applications. Typically, programs running on client machines make requests to programs on a server Machine. These involve networking services provided by the transport layer. The most widely used transport protocols on the Internet are TCP (Transmission control Protocol) and UDP (User Datagram Protocol).

TCP is a connection-oriented protocol providing a reliable flow of data between two computers. On the other hand, UDP is a simpler message-based connectionless protocol which sends packets of data known as datagrams from one computer to another with no guarantees of arrival.