# GROUP CHAT APPLICATION

# A Project Work Synopsis

**SUBMITTED IN THE PARTIAL FULFILMENT FOR THE AWARD OF THE DEGREE OF**

## BACHELOR OF ENGINEERING

## IN

**Big Data and Analytics**

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# DECLARATION

I the undersigned solemnly declare that the project report is based on my own work carried out during the course of our study under the supervision of Rajiv kumar. I assert the statements made and conclusions drawn are an outcome of my work. I further certify that the work contained in the report is original and has been done by me under the general supervision of my supervisor.

II. The work has not been submitted to any other Institution for any other degree/ diploma/ certificate in this university or any other University of India or abroad.

III. We have followed the guidelines provided by the university in writing the report.
IV. Whenever we have used materials (data, theoretical analysis, and text) from other sources, we have given due credit to them in the text of the report and giving their details in the references.

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# ACKNOWLEDGEMENT

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

I am highly indebted to (Name of your Organization Guide) for their guidance and constant supervision as well as for providing necessary information regarding the project & also for their support in completing the project.

I would like to express my gratitude towards my parents and my department for their kind co-operation and encouragement which help me in completion of this project.

**THANKS AGAIN TO ALL WHO HELPED**

# ABSTRACT

**Goal of this project is making a chatting application where people can easily able to communicate with each other in any time with the help of local area network connection. there no any issue of privacy or other problems. Our main objective for this project is proper use of socket programming and multi threading for communication between server and client. Socket programming is a concept of networking. Different clients put the port number and IP address of the server for connection between server and client. So for people can communicate with each other at any time and without any trouble. For developing frame we use java swings and window builder toolkit. Where People also customised the frame as their according through the help of standard widget toolkit.**

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# PROBLEM DEFINITION

According to survey there find that people sometimes facing many different kinds of problems while using chatting application like WhatsApp and other. and issue like data privacy and advertisement related. And that cause people stop using such kind of apps while there any important and serious talking and texting because many people avoid in this situation because there are some chance of any user problems and also sometimes many apps suddenly hang while using and it take some times for reworking and thats kill so much time of people and this is major problems these days. So here we make a group chat application where people easily able to text with each other without any issues and problems with the help of local area network connection.

# PROJECT OVERVIEW

**Our main aim for making this project is to solve above problems mentions so that peoples easily able to text each other if they are connected through same local area network. We not make big platform for using this application we just try to use socket programming through we able to connect our server and multiple clients. So that people set a pot number in the server and connect with their system with client start. In this project we make a three files.**

**1) server start**

**2) Client start**

**3) Client**

**By using server start file we can start the server by taking port number as an input from the user.**

**Client start and client are the files which we can display it to any number of clients system. And from there we can start the client by putting port number of the server and the IP address.**

**Once number of clients and server gets connects after that clients can communicate with each other.**

**Server is the one who will accept all the messages from the no of clients and will send it to all the connected clients.**

## HARDWARE SPECIFICATION

A desktop/laptop OS window 10,8,7 or Mac then macOS big sur.

## SOFTWARE SPECIFICATION

Eclipse EE, JAVA JDK

## LITERATURE SURVEY

Group chat application is basically a desktop based application. Socket programming is a concept of networking. Socket use port number to make connection. and socket programming is a way of connecting two nodes of a network to communicate with each other. One socket(server) listens on a particular part at an IP, while other socket (client) reaches out to the other to form a connection. Server forms the listener socket while client reaches out to the server, once their port number matches they will get connect. The application is based on single server with multiple clients system and it is a desktop based application for developing frames we will use swing and window builder which is a composed of SWT designer which help to create java GUI application and for communication between server and client we will use socket programming. For starting the clients we have to enter the port number on which it is to be connected and the IP address of the client. And once number of clients and server gets connects after that clients can communicate with each other.

# PROBLEM FORMULATION

Does any similar group chat application exit for our personal group texting and if it does then Is there any feature like customise your label font and group name images etc and connect through same private LAN connection.

Answer this is a group chatting application and also this is not created in big platform and big features but if people want group texting at their personal level like in same area network, then they can use this for texting and customise it with the help of SWT designer.

# OBJECTIVES

Our main objectives for this project is proper use of multicast socket and use of socket programming for communication between server and client and for making frame use of java swing and window builder which is a composed SWT designer which help to create GUI application. The application is based on single server with multiple client system and it is a desktop based application. We make a server start, client start and client. Server start take a port number from the user and client start and client display it to any number of client system and from there we take port number and IP address from the usr and once they connect they can communicate with each other.

# METHODOLOGY

**The following methodology will be followed to achieve the objectives defined for proposed research work:**

1. **Detailed study of java swing, socket programming and multi threading.**

2. **Implementation of multi threading and multicast socket.**

3. **Use of window builder SWT ( standard widget toolkit) designer.**

# Conclusion and discussion

**First we give the introduction of our project in which we talk about problem definition, project overview/specification, hardware and software specification.**

**And its also include the literature survey and review of our project. What are problems and implementation.**

**This report also provide instruction of the concept which is important to understand.**

**This report will cover what are the methodology for this project and what are the objectives for this project and last it cover the conclusion and discussion.**

# REFERENCES

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