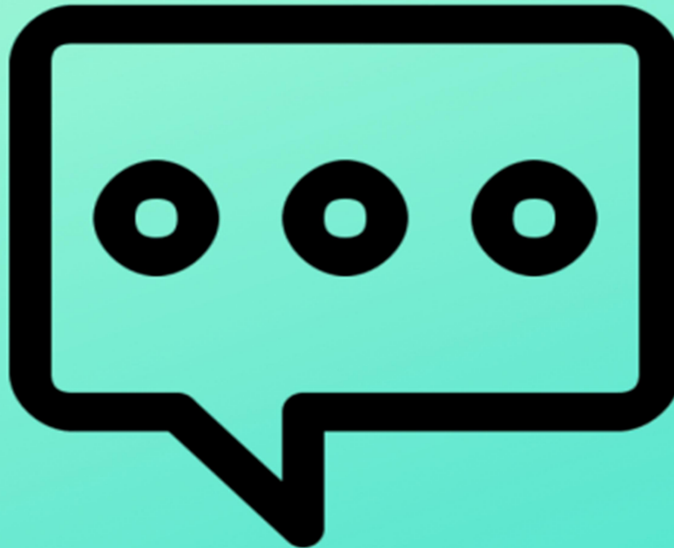




**SUBJECT :- Computer Networks**

**SUBJECT CODE :- CS602**

**PROJECT REPORT ON :- Chat Application using  
Python**



**Project By  
Saptorshe Das (CSE3C – 72)**

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## **Acknowledgement**

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HOD of Computer Science Engineering department, UEM Kolkata. Thirdly I would love to thank our concerned subject teachers Sumit Anand Sir and other faculties for providing us with the project idea and necessary study material for the project.

## **Overview Of the Topic**

### **Introduction :**

#### **INTRODUCTION**

##### **1. INTRODUCTION**

Teleconferencing or 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 quit recent. Our project is an example of a 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 where they can practice two kinds of chatting, public one (message is broadcasted to all connected users) and private one (between any 2 users only) and during the last one security measures were taken.

# **System Requirements to run the Software :**

The software is developed using Python and as python is OS independent so it can be run on any OS

Like Windows, Linux , Mac OS . But the only drawback is that python should be installed in the system to run this software as it is not an executable file instead It is a python file and no installer is attached with the project.

**Software Size :** 1 Mb

**OS :** Windows, Linux, Mac

**Others :** It doesn't require a high-end system to run this software, it is able to run on any low level system even.

## **System Requirements :**

- \* Python 3.6 or greater
- \* Threading (inbuild in Python Standard Library)
- \* Sockets (inbuild in Python Standard Library)
- \* Tkinter – install it via using 'pip install tkinter'

# Development Environment :

**Programming Language Used :** Python

**Version :** Python 3.6.0

**Database :** None

**Overview :** Tkinter builder has been used to develop the project. It is a GUI application which is made up of N Pytkinter Frames.

**Tkinter :** Tkinter is Python's de-facto standard GUI (Graphical User Interface) package. It is a thin object-oriented layer on top of Tcl/Tk. Tkinter is not the only GuiProgramming toolkit for Python. It is however the most commonly used one.

## Tools used to develop the project :

**1 : Pycharm :** PyCharm is a dedicated Python Integrated Development Environment (IDE) providing a wide range of essential tools for Python developers, tightly integrated together to create a convenient environment for productive Python, web, and data science development.

**Software genre:** Integrated development environment.

**Languages used:** Python

# Application Of the Software :

Usage:

Execute the below from Windows command prompt/Linux Shell[\*\*](#footnote)

1. Test to make sure you have all the required dependencies at place. Typing

```
``  
python3 -m tkinter  
``
```

should not error out. If it does, you have missing Tkinter module,  
which needs to be installed.

2. Now, first start the server from [multiChatServer.py](multiChatServer.py)

```
``  
python3 multiChatServer.py  
``
```

3. Then, run the below to start one client from [multiChatClient.py](multiChatClient.py):

```
``  
python3 multiChatClient.py  
``
```

If you need more than one client, run the above command on seperate command windows.

**Github Link of the Code :** <https://github.com/iamsaptorshe07/Chat-Application-Btech-3rd-year-networking-lab-project.git>  
git push -u origin master

```
C:\Windows\System32\cmd.exe - python multiChatServer.py
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

G:\Projects\Python Projects\CSE_3C_Roll_72_Enroll_12017009001056_Networking Lab Project>python multiChatServer.py
Creded By Ssaptorshe Das, Roll 72, CSE 3C, Enroll - 12017009001056
Chat Server has Started !!
Waiting for connections...
```

Simple Chat Client v1.0

Greetings from the ChatRoom!  
Now type your name and press enter!  
Welcome shiba! If you ever want to quit, type #quit to exit.  
saptorshe from [127.0.0.1:11028] has joined the chat!  
shiba: Hi  
saptorshe: Hello  
shiba: How Are you?  
saptorshe: I am fine? What about you?  
shiba: :)  
saptorshe: :(

Enter Message:

Send

:)

:(

Quit

Simple Chat Client v1.0

Greetings from the ChatRoom!  
Now type your name and press enter!  
Welcome saptorshe! If you ever want to quit, type #quit to exit.  
shiba: Hi  
saptorshe: Hello  
shiba: How Are you?  
saptorshe: I am fine? What about you?  
shiba: :)  
saptorshe: :(

Enter Message:

Send

:)

:(

Quit

```
C:\Windows\System32\cmd.exe - python multiChatClient.py
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

G:\Projects\Python Projects\CSE_3C_Roll_72_Enroll_12017009001056_Networking Lab Project>python multiChatClient.py
```

```
C:\Windows\System32\cmd.exe - python multiChatClient.py
Creded By Ssaptorshe Das, Roll 72, CSE 3C, Enroll - 12017009001056
Chat Server has Started !!
Waiting for connections...
127.0.0.1:11027 has connected.
127.0.0.1:11028 has connected.
```

```
C:\Windows\System32\cmd.exe - python multiChatClient.py
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

G:\Projects\Python Projects\CSE_3C_Roll_72_Enroll_12017009001056_Networking Lab Project>python multiChatClient.py
```

Activate Windows



**REMARKS:**

**Date**

**Teacher's Signature**