

KENDRIYA VIDYALAYA AMBERNATH



A PROJECT ON : “ INSTANT MESSAGING SYSTEM “



SUBMITTED BY :

NAME: AMITESH AND SATYAM

ROLL NO.:

UNDER THE GUIDANCE OF:

MS. APARNA DHIRDE(PGT C.S)

CERTIFICATE

CLASS: XII-A YEAR: 2019-2020

This is to certify that Investigatory Project is successfully completed by of Class: XII, Division: A

Roll no. : for the academic year 2019-2020 in

the School Computer lab.

Head Teacher
Signature:

External
Examiner

Internal
Examiner
(Subject
Teacher)

Date: / / 20

Department of: COMPUTER SCI.

Principal

Acknowledgement:

I, _____ of class XIIth- A, roll no: _____

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BRIEF OVERVIEW OF PROJECT..

The main objective of the python project on “INSTANT MESSAGING SYSTEM” is to make messaging system In its simplest form, instant messaging which seeks to accomplish two goals: monitoring presence for the purpose of sending presence-based alerts to users in the chatroom and messaging. ... The software establishes a direct connection between users so they can talk to each other synchronously, in real time.

As is commonly said, “Communication is the soul of business”. One of the major benefits of instant messaging in the workplace is that it allows businesses to communicate with each other in real time. Business executives need to communicate their ideas and business goals with other executives who in turn will apps on same to the employees. Instant messaging provides a cost-effective and convenient way for business to communicate. As instant messaging continues to evolve, more business-friendly features will be added

SOURCE CODE:-

Project for Instant Message Services using Python and MySQL Connectivity

```
import os  
import platform  
import mysql.connector  
import pandas as pd
```

```
mydb = mysql.connector.connect(  
    host="localhost",  
    user="root",  
    passwd="tiger",  
    database="service"  
)
```

```
def create_table():  
    try:  
        mycursor = mydb.cursor()  
        mycursor.execute("CREATE DATABASE service")  
        mycursor = mydb.cursor()  
        mycursor.execute("CREATE TABLE ims (msg_id  
VARCHAR(10),rname VARCHAR(30),sname  
VARCHAR(30),rmail VARCHAR(50),smail  
VARCHAR(50),msg VARCHAR(250))")  
        print("Table Created")  
    except:  
        print("Database or Table Already Created")
```

```
def add_msg():  
    mycursor=mydb.cursor()  
    msg_id=input("Enter Messae ID: ")  
    rname=input("Enter the Name of Receiver: ")  
    sname=input("Enter the Name of Sender: ")  
    rmail=input("Enter Receiver E-mail : ")  
    smail=input("Enter the Sender E-mail : ")  
    msg=input("Enter the Message : ")
```

```
sql="INSERT INTO  
ims(msg_id,rname,sname,rmail,smail,msg) VALUES  
(%s,%s,%s,%s,%s,%s)"  
val=(msg_id,rname,sname,rmail,smail,msg)  
mycursor.execute(sql,val)  
mydb.commit()  
print(mycursor.rowcount, "Record inserted.")
```

```
def search_msg():  
    mycursor=mydb.cursor()  
    print("Select the search criteria : ")  
    print("1. Message ID: ")  
    print("2. Name of Sender: ")  
    print("3. Name of Receiver: ")  
    print("4. All Details")  
    ch=int(input("Enter the choice : "))
```

```
if (ch==1):  
    s=input("Enter Message ID : ")  
    mycursor.execute("SELECT * FROM ims")  
    myresult = mycursor.fetchall()  
    for x in myresult:  
        if(x[0]==s):  
            print(x)
```

```
if(myresult):  
    print("No Record Found for ID: ",s)
```

```
elif (ch==2):  
    sn=input("Enter Sender Name : ")  
    mycursor.execute("SELECT * FROM ims")  
    myresult = mycursor.fetchall()  
    for x in myresult:  
        if(x[2]==s):  
            print(x)  
    if(myresult):  
        print("No Record Found for Sender Name: ",s)
```

```
elif (ch==3):  
    s=input("Enter Receiver Name : ")  
    mycursor.execute("SELECT * FROM ims")  
    myresult = mycursor.fetchall()
```

```

    for x in myresult:
        if(x[1]==s):
            print(x)
    if(myresult):
        print("No Record Found for Receiver Name: ",s)

elif (ch==4):
    mycursor.execute("SELECT * FROM ims")
    myresult = mycursor.fetchall()
    for x in myresult:
        print(x)
    if(myresult):
        print("No Record Found !!")

def delete_msg():
    mycursor = mydb.cursor()
    ms=input("Enter the Message ID to be deleted : ")
    sql = "DELETE FROM ims WHERE msg_id = %s"%ms
    mycursor.execute(sql)
    mydb.commit()
    print(mycursor.rowcount, "record(s) deleted")

def Main_Menu():
    print("Enter 1 : TO ADD NEW MESSAGE")
    print("Enter 2 : TO SEARCH MESSAGE")
    print("Enter 3 : TO DELETE MESSAGE")
    print("Enter others to Exit")
    try:
        userInput = int(input("Please Select An Above Option:
"))

        if (userInput==1):
            print("\n")
            add_msg()
        elif(userInput==2):
            search_msg()
        elif (userInput==3):
            delete_msg()
        else:
            print("Enter correct choice. . . ")
            ch = input("\nwant to continue Y/N: ")
            if(ch == 'Y' or ch=='y'):

```

```
        print(os.system('cls'))
        Main_Menu()
    else:
        print("Program going to Exit")
        exit("\n! Thanks")
    except():
        print("Something Wrong in code")
#Main_Menu()
create_table()
```

''

REQUIREMENTS

HARDWARE REQUIREMENTS

Computer,for coding and typing the required documents of the project.

printer, to print the required documents of the project.

Compact drive.

Processor : Pentium quad core

Ram : 64 mb

Hard disk : 20 gb

SOFTWARE REQUIREMENTS

Operating system : windows 10

Python 3 : for execution of program

Mysql : for storing data in the database

Python – mysql connector : for database connectivity and

Microsoft word, for presentation of output



1. Real-Time Communication

Unlike emails where you have to wait for messages to download from the server, use of instant messaging allows you to communicate with users in real time. This is one of the main advantages of instant messaging communication for businesses. If a contact appears online, you can send and receive messages in real time, faster than an email response. This is particularly useful in a business setting where clients or customers get fast responses to questions. Instant messaging could also be used for faster internal communications too.

2. Cost Saving

With instant messaging, you can communicate with anyone in any part of the world without having to pay the usually expensive international call tariffs. You could call your suppliers abroad, make a deal-sealing [presentation via video conferencing](#), hire staff in foreign countries and conduct business internationally at very reduced costs, relative to traditional methods of doing this.

3. Convenient

Instant messaging provides real-time communication that is not as intrusive as when you're using a phone. You can be communication with your partner right on your laptop while doing a number of other things. But with a phone

call, you both would have to pause whatever you were doing to effectively communicate with each other.

4. Team Building

Instant messaging can be a good tool for team building in a workplace, especially where you have team members in different locations. While words could easily be misheard or misunderstood in phone conversations, it is less likely if the conversation is done via texts. This is also helpful if one or more team members speak with an accent that is not easily understandable or in a noisy workplace.

LIMITATIONS

1. Distraction

This is the major drawback of real-time communication. Since users expect quick responses from you, it could easily distract you from your regular work duties. This could, in turn, lead to reduced productivity.

2. Security

Instant messaging presents a security threat to your business since they are third party applications. Sometimes, these programs become vulnerable to malicious attacks and data are stolen or your system is intruded into. Also, [file sharing opens up your business network to malware](#).

3. Viruses

Viruses and spyware could hurt your business can easily be delivered into your network through these third party applications.

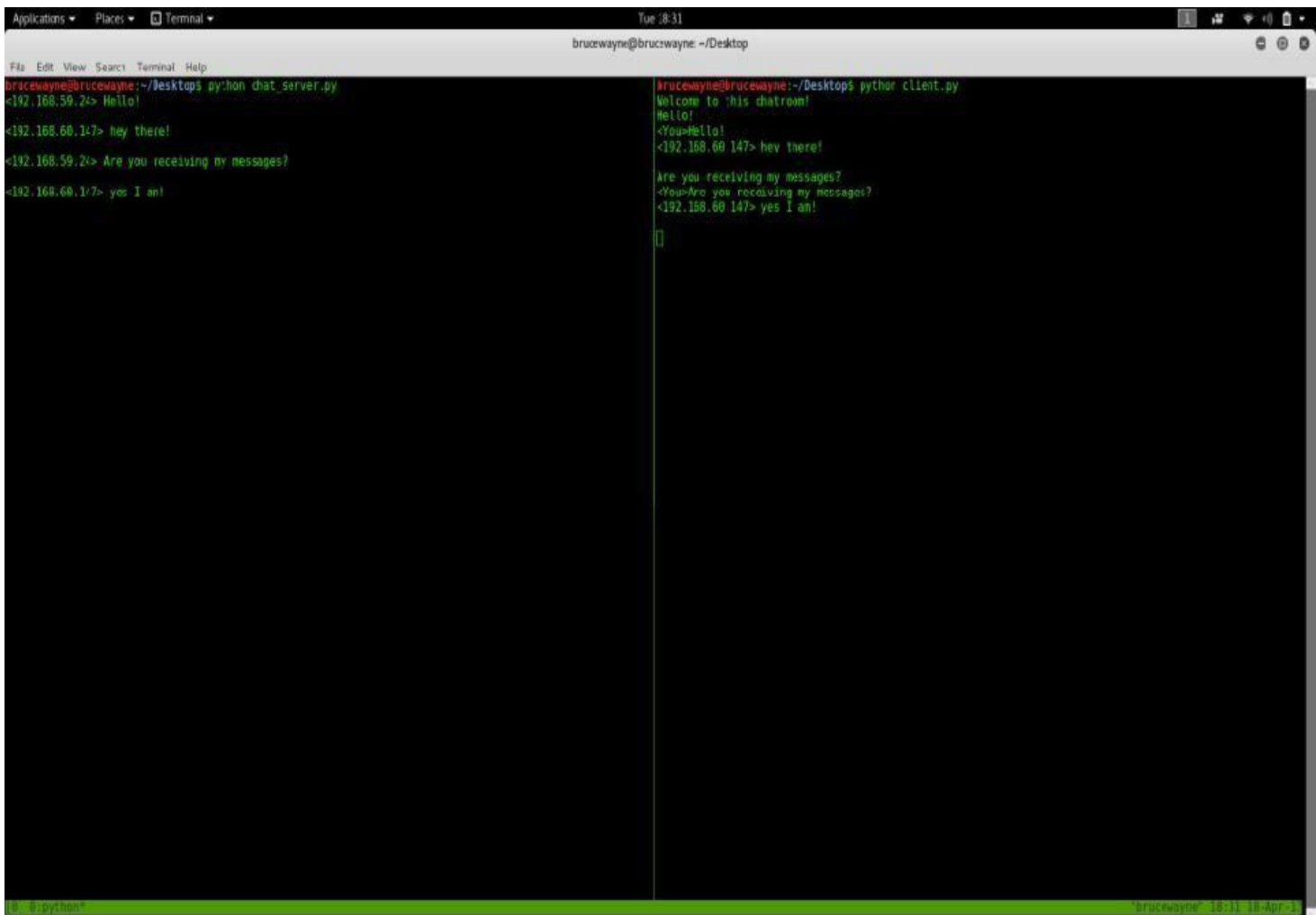
4. Compatibility

There are several instant messaging platforms out there, each with their own peculiar network. Sadly each communicates, mostly, within its own network. Communicating with different users would require installing multiple [instant messaging software or using programs that can access several networks simultaneously like Pidgin or Trillian](#).

Future enhancements

- 1. The process of gathering information, diagnosing the problems, then interpreting facts is known as System analysis. It also includes recommending system improvements needed, based on the same data.**
- 2. The system is observed as a whole; the inputs need to be identified firstly before tuning them and then the system is subjected to study as a whole to identify the problem areas.**
- 3. Although tunings any system as a whole is a complex procedure, but tuning individual statements is not the best as something that is correct for one input may hurt another inputs performance.**
- 4. The solutions are given as a proposal. The suggestion is revised on user request and optimal changes are made. This loop terminates as soon as the user is gratified with the proposal.**
- 5. So on the whole, system analysis is done to improve the system performance by monitoring it and obtaining the best throughput possible from it. Therefore system analysis plays a crucial role in designing any system.**

OUTPUT SCREEEN



The image shows a terminal window with a dark background and green text. The window title is "brucewayne@brucewayne: ~/Desktop". The terminal is split into two panes. The left pane shows the output of running a chat server, and the right pane shows the output of running a chat client. The interaction is as follows:

```
brucewayne@brucewayne:~/Desktop$ python chat_server.py
<192.168.59.2> Hello!
<192.168.60.147> hey there!
<192.168.59.2> Are you receiving my messages?
<192.168.60.147> yes I am!
```

```
brucewayne@brucewayne:~/Desktop$ python client.py
Welcome to this chatroom!
Hello!
<You>Hello!
<192.168.60.147> hey there!
Are you receiving my messages?
<You>Are you receiving my messages?
<192.168.60.147> yes I am!
```

BIBLIOGRAPHY:-

**Computer science in python by-
SUMITA ARORA**