

**Thursday, March 28, 2019**

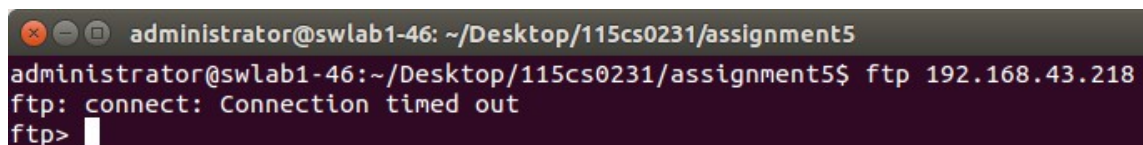
[22] Write a program to demonstrate the loading of a local file to a remote FTP?

```
import os
import argparse
import ftplib
import getpass

LOCAL_FTP_SERVER = 'localhost'
LOCAL_FILE = 'file1.txt'

def ftp_upload(ftp_server, file_name):
    print ("Connecting to FTP server: %s" %ftp_server)
    ftp = ftplib.FTP(ftp_server)
    ext = os.path.splitext(file_name)[1]
    if ext in (".txt", ".htm", ".html"):
        ftp.storlines("STOR " + file_name, open(file_name))
    else:
        ftp.storbinary("STOR " + file_name, open(file_name, "rb"), 1024)
    print ("Uploaded file: %s" %file_name)

if __name__ == '__main__':
    ftp_server='192.168.43.218'
    ftp_upload(ftp_server,'file1.txt')
```

A terminal window with a dark background and light text. The title bar shows 'administrator@swlab1-46: ~/Desktop/115cs0231/assignment5'. The command prompt shows 'administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$ ftp 192.168.43.218'. The output shows 'ftp: connect: Connection timed out' followed by a new prompt 'ftp>' with a cursor.

```
administrator@swlab1-46: ~/Desktop/115cs0231/assignment5
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$ ftp 192.168.43.218
ftp: connect: Connection timed out
ftp> █
```

## Special Laboratory in Computer Science and Engineering – II

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[23] Write a program that compress your current working directory and then email as a message. You can send the email message via an external Gmail SMTP host, or you can use a local email server to do this.

```
import os
import argparse
import smtplib
import zipfile
import tempfile
from email import encoders
from email.mime.base import MIMEBase
from email.mime.multipart import MIMEMultipart

sender='115cs0231@gmail.com'
recipient='115cs0221@gmail.com'

zf = tempfile.TemporaryFile(prefix='mail', suffix='.zip')
zip = zipfile.ZipFile(zf, 'w')
#print ("Zipping current dir: %s" %os.getcwd())
for file_name in os.listdir(os.getcwd()):
    zip.write(file_name)
zip.close()
zf.seek(0)

print ("Creating email message...")
email_msg = MIMEMultipart()
email_msg['Subject'] = 'File from path %s' %os.getcwd()
email_msg['To'] = ', '.join(recipient)
email_msg['From'] = sender
email_msg.preamble = 'Testing email from Python.\n'
msg = MIMEBase('application', 'zip')
msg.set_payload(zf.read())
encoders.encode_base64(msg)
msg.add_header('Content-Disposition', 'attachment',
    filename=os.getcwd()[-1] + '.zip')
email_msg.attach(msg)
email_msg = email_msg.as_string()

print ("Sending email message...")
```

```
import poplib
import string, random
```

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```
import StringIO, rfc822
import logging

SERVER = "pop.gmail.com"
USER = "ayesha.patra2"
PASSWORD = "password"

# connect to server
logging.debug('connecting to ' + SERVER)
server = poplib.POP3_SSL(SERVER)
#server = poplib.POP3(SERVER)

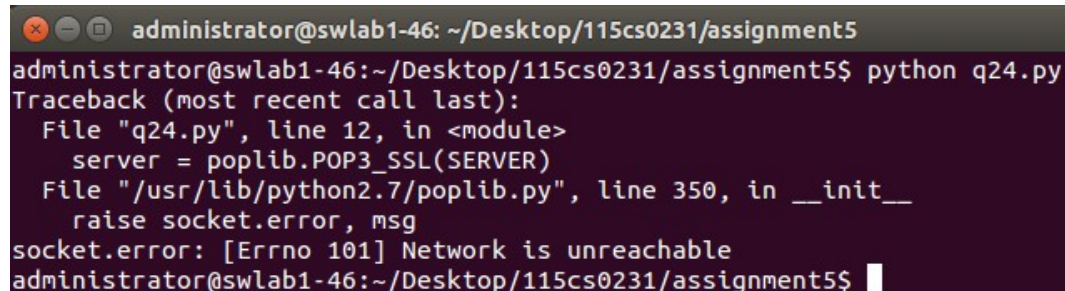
# login
logging.debug('logging in')
server.user(USER)
server.pass_(PASSWORD)

# list items on server
logging.debug('listing emails')
resp, items, octets = server.list()

# download the first message in the list
id, size = string.split(items[0])
resp, text, octets = server.retr(id)

# convert list to Message object
text = string.join(text, "\n")
file = StringIO.StringIO(text)
message = rfc822.Message(file)

# output message
print(message['From'],
print(message['Subject'],
print(message['Date'],
#print(message.fp.read())
```



A terminal window with a dark background and light text. The title bar shows 'administrator@swlab1-46: ~/Desktop/115cs0231/assignment5'. The command prompt shows 'administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$ python q24.py'. The output shows a traceback error: 'File "q24.py", line 12, in <module> server = poplib.POP3\_SSL(SERVER) File "/usr/lib/python2.7/poplib.py", line 350, in \_\_init\_\_ raise socket.error, msg socket.error: [Errno 101] Network is unreachable'. The prompt returns to 'administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$'.

```
administrator@swlab1-46: ~/Desktop/115cs0231/assignment5
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$ python q24.py
Traceback (most recent call last):
  File "q24.py", line 12, in <module>
    server = poplib.POP3_SSL(SERVER)
  File "/usr/lib/python2.7/poplib.py", line 350, in __init__
    raise socket.error, msg
socket.error: [Errno 101] Network is unreachable
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$
```

## Special Laboratory in Computer Science and Engineering – II

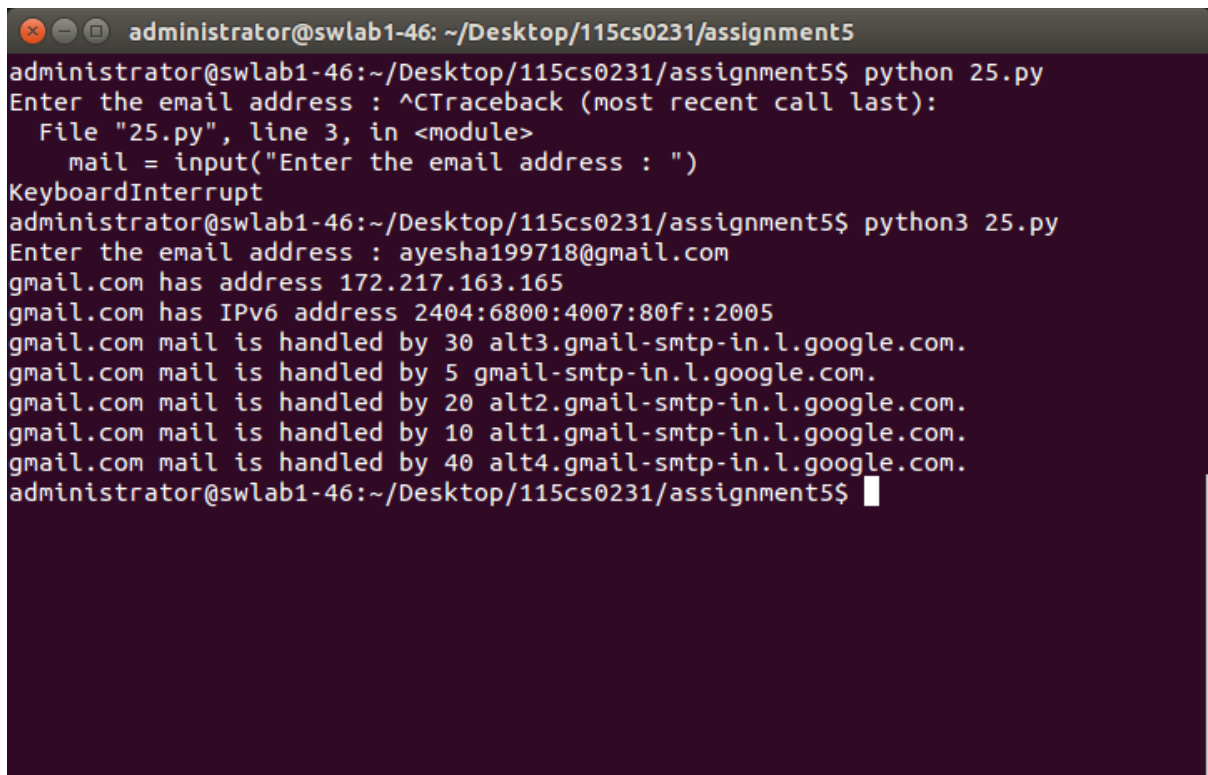
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[25] Write a program that finds detail of the mail server from an email address.

```
import os

mail = input("Enter the email address : ")
mail = mail.split('@')
if len(mail) == 1:
    mail = mail[0]
else:
    mail = mail[1]

os.system("host "+mail)
```



```
administrator@swlab1-46: ~/Desktop/115cs0231/assignment5
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$ python 25.py
Enter the email address : ^C
Traceback (most recent call last):
  File "25.py", line 3, in <module>
    mail = input("Enter the email address : ")
KeyboardInterrupt
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$ python3 25.py
Enter the email address : ayesha199718@gmail.com
gmail.com has address 172.217.163.165
gmail.com has IPv6 address 2404:6800:4007:80f::2005
gmail.com mail is handled by 30 alt3.gmail-smtp-in.l.google.com.
gmail.com mail is handled by 5 gmail-smtp-in.l.google.com.
gmail.com mail is handled by 20 alt2.gmail-smtp-in.l.google.com.
gmail.com mail is handled by 10 alt1.gmail-smtp-in.l.google.com.
gmail.com mail is handled by 40 alt4.gmail-smtp-in.l.google.com.
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$
```

[26] Write a program that connects to Google mail server with POP3 to fetch an email message from an email account.

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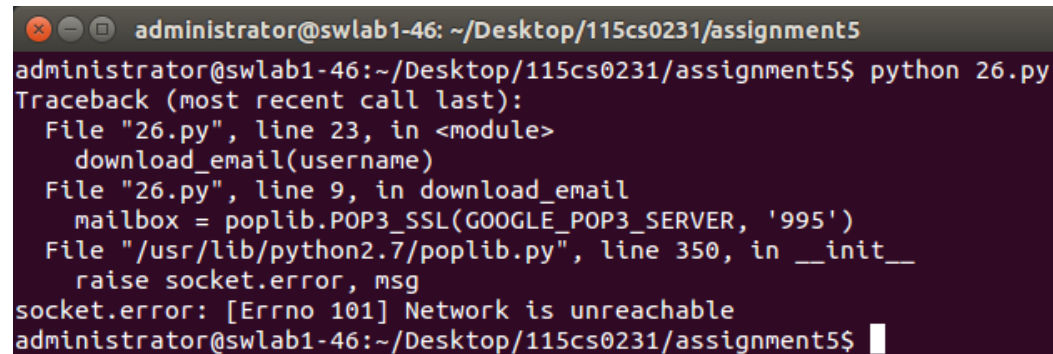
```
import argparse
import getpass
import poplib

GOOGLE_POP3_SERVER = 'pop.googlemail.com'

def download_email(username):
    mailbox = poplib.POP3_SSL(GOOGLE_POP3_SERVER, '995')
    mailbox.user(username)
    password = getpass.getpass(prompt="Enter your Google password: ")
    mailbox.pass_(password)
    num_messages = len(mailbox.list()[1])
    print ("Total emails: %s" %num_messages)
    print ("Getting last message")
    for msg in mailbox.retr(num_messages)[1]:
        print (msg)
    mailbox.quit()

if __name__ == '__main__':

    username = 'ayesha199718@gmail.com'
    download_email(username)
```

A terminal window with a dark background and light text. The title bar shows 'administrator@swlab1-46: ~/Desktop/115cs0231/assignment5'. The prompt is 'administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$'. The user has run 'python 26.py'. The output shows a traceback starting from 'File "26.py", line 23, in <module>' and going back to 'File "26.py", line 9, in download\_email', where it reaches 'mailbox = poplib.POP3\_SSL(GOOGLE\_POP3\_SERVER, '995')'. The next line in the traceback is 'File "/usr/lib/python2.7/poplib.py", line 350, in \_\_init\_\_', which raises a 'socket.error, msg'. The final error message is 'socket.error: [Errno 101] Network is unreachable'. The prompt returns to 'administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$'.

```
administrator@swlab1-46: ~/Desktop/115cs0231/assignment5
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$ python 26.py
Traceback (most recent call last):
  File "26.py", line 23, in <module>
    download_email(username)
  File "26.py", line 9, in download_email
    mailbox = poplib.POP3_SSL(GOOGLE_POP3_SERVER, '995')
  File "/usr/lib/python2.7/poplib.py", line 350, in __init__
    raise socket.error, msg
socket.error: [Errno 101] Network is unreachable
administrator@swlab1-46:~/Desktop/115cs0231/assignment5$
```