### 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))
      ftp.storbinary("STOR " + file_name, open(file_name, "rb"), 1024)
   print ("Uploaded file: %s" %file_name)
if __name__ == '__main__':
   \overline{\text{ftp server}} = 19\overline{2}.168.\overline{43}.218
   ftp_upload(ftp_server,'file1.txt')
```

[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...")
```

```
try:
    smtp = smtplib.SMTP('localhost')
    smtp.set_debuglevel(1)
    smtp.sendmail(sender, recipient, email_msg)
except Exception as e:
    print ("Error: %s" %str(e))
finally:
    smtp.close()
```

#### administrator@swlab1-46: ~/Desktop/115cs0231/assignment5

DBBOA\r\nAAAAAE14fE656ULWZAIAAGOCAAAFAAAAMjYucHkKaW1wb3J0IGFyZ3BhcnNlCmltcG9ydCB nZXRw\r\nYXNzCmltcG9ydCBwb3BsaWIKCkdPT0dMRV9QT1AzX1NFUlZFUiA9ICdwb3AuZ29vZ2xlbWF pbC5j\r\nb20nCgpkZWYgZG93bmxvYWRfZW1haWwodXNlcm5hbWUpOiAKICAgIG1haWxib3ggPSBwb3B saWIu\r\nUE9QM19TU0woR09PR0xFX1BPUDNfU0VSVkVSLCAnOTk1JykgCiAgICBtYWlsYm94LnVzZXI odXNl\r\ncm5hbWUpCiAgICBwYXNzd29yZCA9IGdldHBhc3MuZ2V0cGFzcyhwcm9tcHQ9IkVudGVyIHl vdXIg\r\nR29vZ2xlIHBhc3N3b3JkOiAiKSAKICAgIG1haWxib3gucGFzc18ocGFzc3dvcmQpIAogICA gbnVt\r\nX21lc3NhZ2VzID0gbGVuKG1haWxib3gubGlzdCgpWzFdKQogICAgcHJpbnQgKCJUb3RhbCB lbWFp\r\nbHM6ICVzIiAlbnVtX21lc3NhZ2VzKQogICAgcHJpbnQgKCJHZXR0aW5nIGxhc3QgbWVzc2F nZSIp\r\nCiAgICBmb3IgbXNnIGluIG1haWxib3gucmV0cihudW1fbWVzc2FnZXMpWzFdOgogICAgICA gIHBy\r\naW50IChtc2cpCiAgICBtYWlsYm94LnF1aXQoKQoKaWYgX19uYW1lX18gPT0gJ19fbWFpbl9 fJzoK\r\nIAogICAgdXNlcm5hbWUgPSAnYXllc2hhMTk5NzE4QGdtYWlsLmNvbScKICAgIGRvd25sb2F kX2Vt\r\nYWlsKHVzZXJuYW1lKQpQSwECFAMUAAAAAACQfGdOsdS5hd0FAADdBQAABQAAAAAAAAAAAA ApIEA\r\nAAAAMjMucHlQSwECFAMUAAAAABifHxOIMQNEdoEAADaBAAABgAAAAAAAAAAAAAAtIEABgA AMjQu\r\ncHl+UEsBAhQDFAAAAAAASXh8TjI0d2c1AwAANQMAAAYAAAAAAAAAAAAAALSB/goAADI2LnB 5flBL\r\nAQIUAxQAAAAAAFx3fE4eZiyNq14AAKteAAAoAAAAAAAAAAAAACkgVcOAAAxMzM3NTc3MDA wMDAw\r\nX05ldHdvcmsgUHJvZ3JhbW1pbmcgVi5kb2N4UEsBAhQDFAAAAAAAZ3d8TilPOzpbAAAAWwA AADAA\r\nAAAAAAAAAAAALSBSG0AAC5+bG9jay4xMzM3NTc3MDAwMDAwX05ldHdvcmsgUHJvZ3JhbW1 pbmcg\r\nVi5kb2N4I1BLAQIUAxQAAAAAAG58fE6o+isPygQAAMoEAAAFAAAAAAAAAAAAAACOgfFtAAA yNC5w\r\neVBLAQIUAxQAAAAAAE14fE656ULWZAIAAGQCAAAFAAAAAAAAAAAAAAC0gd5yAAAyNi5weVB LBOYA\r\nAAAABwAHALUBAABldQAAAAA=\r\n--===========1237884859==--\r\n.\r\n' reply: '250 2.0.0 Ok: queued as 4A8FA1448F0\r\n' reply: retcode (250); Msg: 2.0.0 Ok: queued as 4A8FA1448F0 data: (250, '2.0.0 Ok: queued as 4A8FA1448F0') administrator@swlab1-46:~/Desktop/115cs0231/assignment5\$

[24] Write a program that connects to your Google email account and read the email message. Display one or multiple email message on user request.

import poplib import string, random

```
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())
```

```
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$
```

[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 : ^CTraceback (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.

```
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)
```

```
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$
```