

LAPORAN EVALUASI TENGAH SEMESTER

PEMROGRAMAN JARINGAN D



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SURABAYA

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I. Penjelasan Singkat

A. Deskripsi

Blablabla

B. Daftar Fitur

No.	Keterangan Fitur	Berhasil	Tidak Berhasil	Belum Dikerjakan
1.	Chat	✓		
2.	LIST	✓		
3.	PWD	✓		
4.	CD	✓		
5.	MKDIR	✓		
6.	SENDALL		✓	
7.	DOWNZIP	✓		

II. Source Code dan Dokumentasi

A. Server

Tugas utama server disini adalah mengirimkan pesan dan file ke seluruh user

```
# import library utama
import socket
import time
import select
import sys

def send_file(filename):
    f = open(filename, "rb")
    data = f.read(1024)
    while(data):
        if( server_socket.sendto( data, client ) ):
            data = f.read(1024)
            time.sleep(0.02) # Give receiver a bit time to save
    f.close()
```

```

def recv_file(filename):
    f = open(filename, 'wb')
    while True:
        ready = select.select([server_socket], [], [], 3)
        if ready[0]:
            data, addr = server_socket.recvfrom(1024)
            f.write(data)
        else:
            f.close()
            break

# membuat socket server udp
server_address = ('localhost', 5000)
server_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
server_socket.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
server_socket.bind(server_address)

# set yg akan menyimpan client yg terhubung dengan server
set_client_addr = set()

while True:
    try:
        # recv data yg dikirim client
        data, client_address = server_socket.recvfrom(1024)
        data_msg = data.decode()

        # jika kata kunci adalah connect (client baru connect) maka akan memasukkan client ke set
        # dan mengirim pesan connected... ke client
        if data_msg.split()[2] == "connect":
            server_socket.sendto("connected...".encode(), client_address)

            set_client_addr.add(client_address)
            print(str(client_address) + ' join the chat')
            continue

        # jika kata kunci adalah close (client left chat) maka akan menghapus client pada set
        elif data_msg.split()[2] == "closed":
            set_client_addr.discard(client_address)
            print(str(client_address) + ' left the chat')
            continue

        # jika kata kunci SEND (client kirim file) maka akan menyimpan file pada server
        elif data_msg.split()[2] == "SENDALL":
            recv_file(data_msg.split()[3])

        # broadcast message kesemua user yg ada dalam set

```

```

        for client in set_client_addr:
            msg_usr = data_msg.split()[:2]
            user = str(client).split()
            # akan mengirim pesan kecuali user yg mengirim
            if msg_usr != user:
                server_socket.sendto(data_msg.encode(), client)
                print('message : ' + str(data_msg) + ' to : ' + str(client))

            # read file dan mengirimkan ke client"
            if data_msg.split()[2] == "SENDALL":
                send_file(data_msg.split()[3])

    except KeyboardInterrupt:
        print(str(server_socket.getsockname()) + ' has down')
        server_socket.close()
        sys.exit(0)
        break

```

B. Client

Client akan terhubung dengan ftp. Jika client mengirimkan perintah-perintah tertentu maka dia tidak akan mengirimkan message ke server.

```

# import library yg dibutuhkan
import socket
import time
import sys
import threading
import select
import os
import zipfile
from ftplib import FTP
import shutil

# fungsi receive file
def recv_file(fname):
    f = open(fname, 'wb')
    while True:
        ready = select.select([client_socket], [], [], 3)
        if ready[0]:
            data, addr = client_socket.recvfrom(1024)
            f.write(data)
        else:
            f.close()
            break

```

```

#fungsi send file
def send_file(fname):
    f = open(fname, "rb")
    data = f.read(1024)
    while(data):
        if( client_socket.send( data ) ):
            data = f.read(1024)
            time.sleep(0.02) # Give receiver a bit time to save
    f.close()

# fungsi untuk mencetak message yg dikirim server
# fungsi ini akan dijalankan oleh thread
def print_msg():
    while True:
        recv_msg = client_socket.recv(1024).decode()

        if recv_msg.split()[2] == "SENDALL":
            recv_file(recv_msg.split()[3])
            continue

        print(str(recv_msg).rjust(80))

# buat socket client dan menghubungkan ke server
server_address = ('localhost', 5000)
client_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
client_socket.connect(server_address)

if __name__ == "__main__":

    print('Input user ftp: ')
    user = input()
    print('Input password ftp: ')
    pswd = input()
    print('Input IP FTP: ')
    ipftp = input()

    f = FTP(ipftp)
    f.login(user, pswd)

    act1 = 'LIST'
    act2 = 'PWD'
    act3 = 'CD'
    act4 = 'MKDIR'
    act5 = 'SENDALL'
    act6 = 'DOWNZIP'

    # thread untuk print message
    t1 = threading.Thread(target=print_msg)

```

```

# mengirimkan connect jika awal konek server
message = str(client_socket.getsockname()) + ' ' + 'connect'
client_socket.send(message.encode())
recv_msg = client_socket.recv(1024).decode()
print(recv_msg)

t1.start()

while True:
    try:
        # read inputan pada terminal
        message = sys.stdin.readline()
        message = str(client_socket.getsockname()) + ' ' + message
        # client_socket.send(message.encode()) loloolo

        if message.split()[2] == "SENDALL":
            inpt2 = message.split()[3]
            f.retrbinary("RETR " + inpt2, open(inpt2, 'wb').write)

            send_file(inpt2)
            client_socket.send(message.encode())
        else :

            if message.split()[2].count(act1) == 1:
                names = f.nlst()
            #LIST DIRECTORY
            print('List : ' + str(names))

            elif message.split()[2].count(act2) == 1:
                print('PWD :' + f.pwd()) #PRESENT WORK DI
RECTORY

            # elif message.split()[2].count(act2) == 1:

            #     inpt2 = message.split()[2].replace('RETR ', '')
            #     #DOWNLOAD
            #     f.retrbinary("RETR " + inpt2, open(inpt2, 'wb').w
rite)

            # elif message.split()[2].count(act3) == 1:
            #     inpt2 = message.split()[2].replace('STOR ', '')
            #     f.storbinary('STOR ' + inpt2, open(inpt2, 'rb'))
            #UPLOAD

```

```

        elif message.split()[2].count(act3) == 1:
            inpt2 = message.split()[3]
            f.cwd(inpt2)

#CD

        elif message.split()[2].count(act4) == 1:
            inpt2 = message.split()[3]

            f.mkd(inpt2)
#BUAT DIRECTORY

        elif message.split()[2].count(act5) == 1:
            print('PWD :' + f.pwd()) #PRESENT WORK DI
RECTORY

        elif message.split()[2].count(act6) == 1:
            #DOWNPRESS (FILE DIRECTORY DIUBAH SECARA MANUAL)
            inpt2 = message.split()[3]
            shutil.make_archive('./filezilla/' + inpt2, 'zip',
'./filezilla/' + inpt2)
            fz = inpt2 + '.zip'
            f.retrbinary("RETR " + fz, open(fz, 'wb').write)
            f.delete(fz)

        else:
            print('Salah Command')

        continue

    client_socket.send(message.encode())

# jika kata kunci SEND maka akan melakukan fungsi send file
ke server

# if message.split()[2] == "SENDALL":
#     send_file(message.split()[3])

except KeyboardInterrupt:
    print('you left the chat')
    message = str(client_socket.getsockname()) + ' ' + 'closed'
    client_socket.send(message.encode())
    client_socket.close()
    sys.exit(0)
    break

```

III. Teknis Pengoperasian

Berikut merupakan langkah-langkah dalam pengoperasian program diatas;

1. Jalankan file server
2. Jalankan file client

Contoh perintah client

```
C:\Windows\System32\cmd.exe - python chal_client.py
C:\Users\yusuf\OneDrive\Desktop\ETS_ProgjarD_0511174000051\client2>python chal_client.py
Input user ftp:
mym
Input password ftp:
123123
Input IP FTP:
localhost
connected...
LIST
List : ['lol', 'MKDIR', 'pos', 'sip.txt', 'sop']
PWD
PWD :/
CD pos
PWD
PWD :/pos
MKDIR lolfolder
LIST
List : ['lolfolder']
DOWNZIP lolfolder
```

3. Chat sudah berhasil

```
mym@mym-HP-EliteBook-2570p: ~/Documents/Progjar/8/cli...
mym@mym-HP-EliteBook-2570p:~/Documents/Progjar/8/client1$ python chal_client.py
connected...
Hello gan
('127.0.0.1', 56236) Haii haiii

Boleh minta kirim file?
('127.0.0.1', 56236) file apa?

lol.txt gan
('127.0.0.1', 56236) oke oke wait y
```