Dokumentasi Praktikum Multi Threaded File Server

Pemrograman Jaringan
Kelas E

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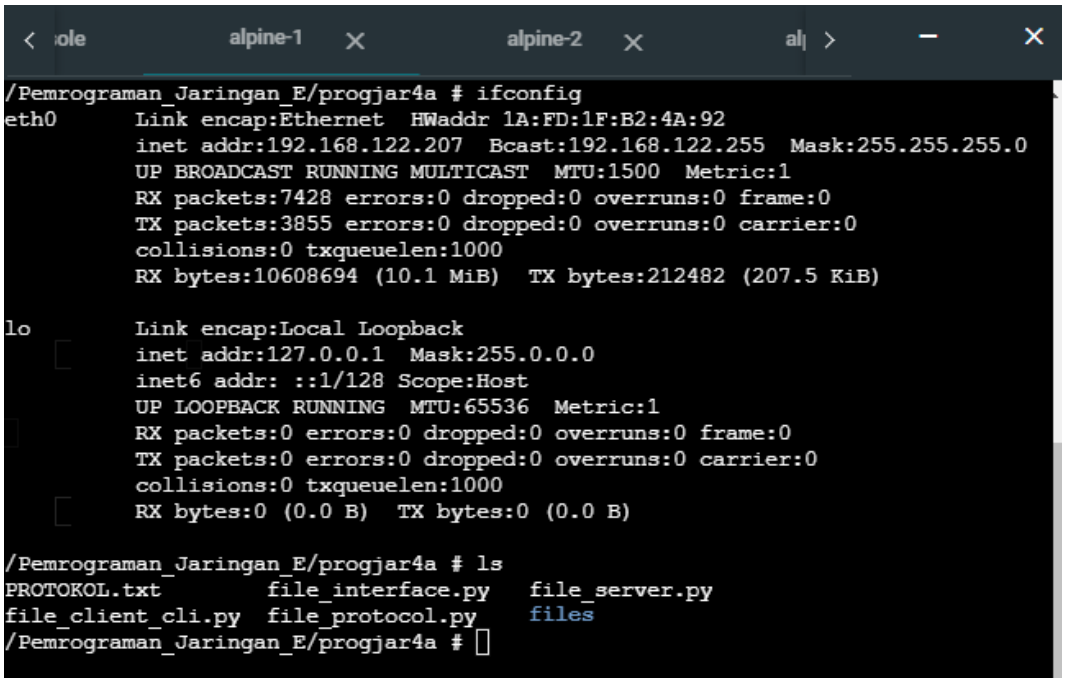
Surabaya
2021

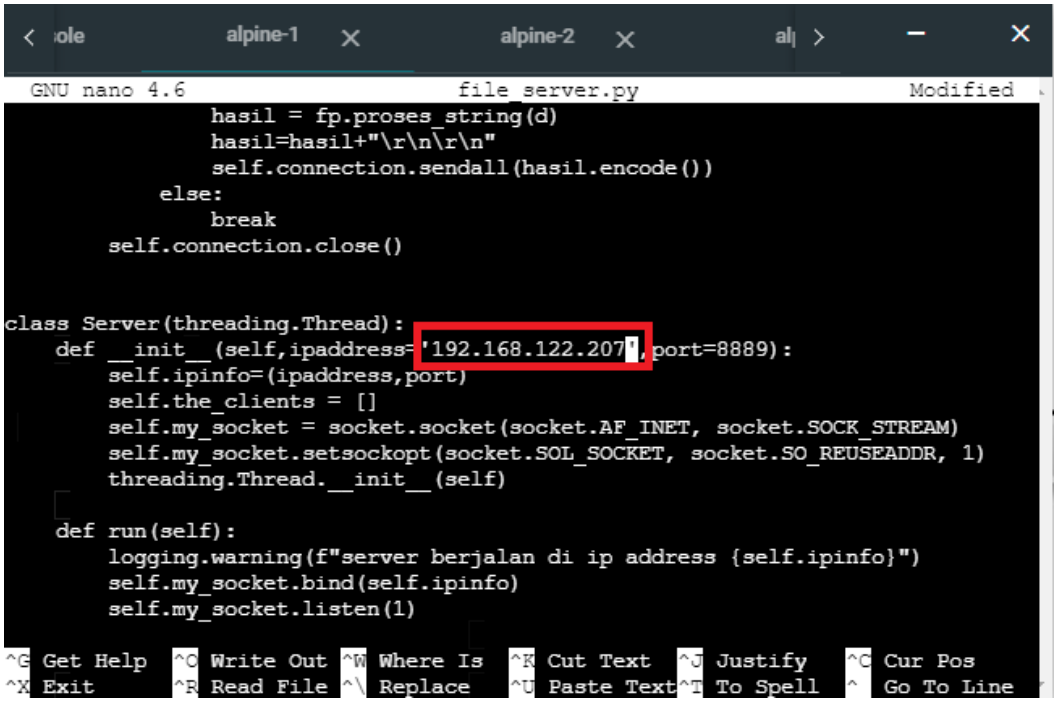
Praktikum :

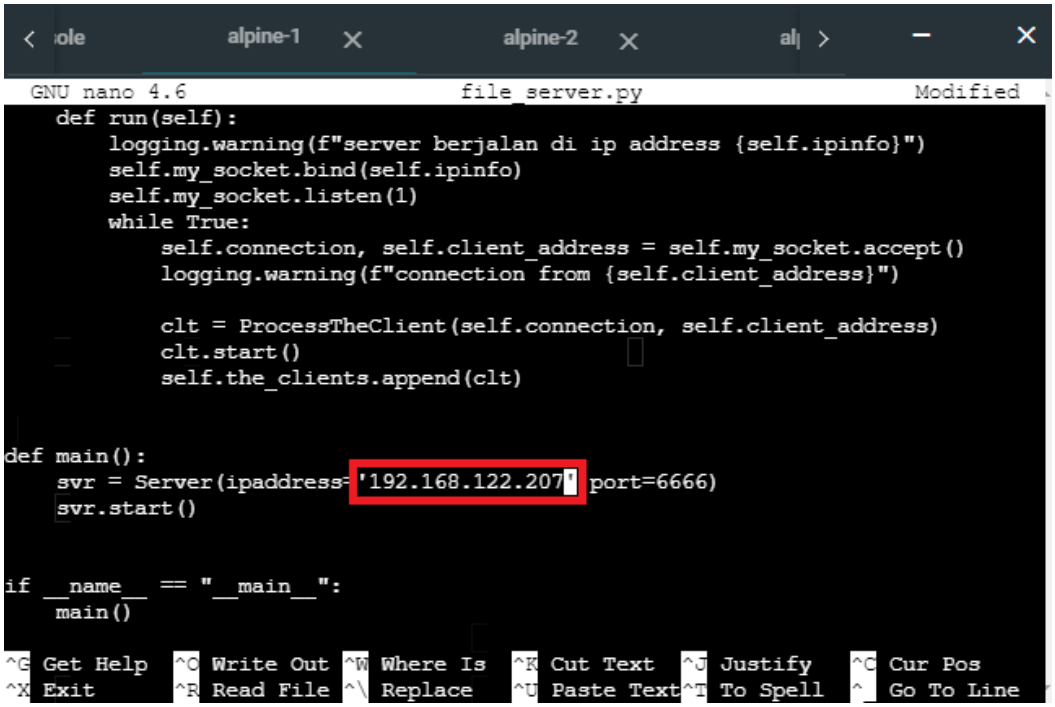
Semua tugas berikut ini harus dijalankan di simulator
1. Jalankan program server seperti dalam pembahasan
2. Buatlah program client yang dapat melakukan 100 request get pada dalam satu saat untuk operasi get file "pokijan.jpg"
3. Capture dan submitlah poin 1 dan 2 dalam satu dokumen pdf. berikan deskripsi dan penjelasan

Langkah-langkah :

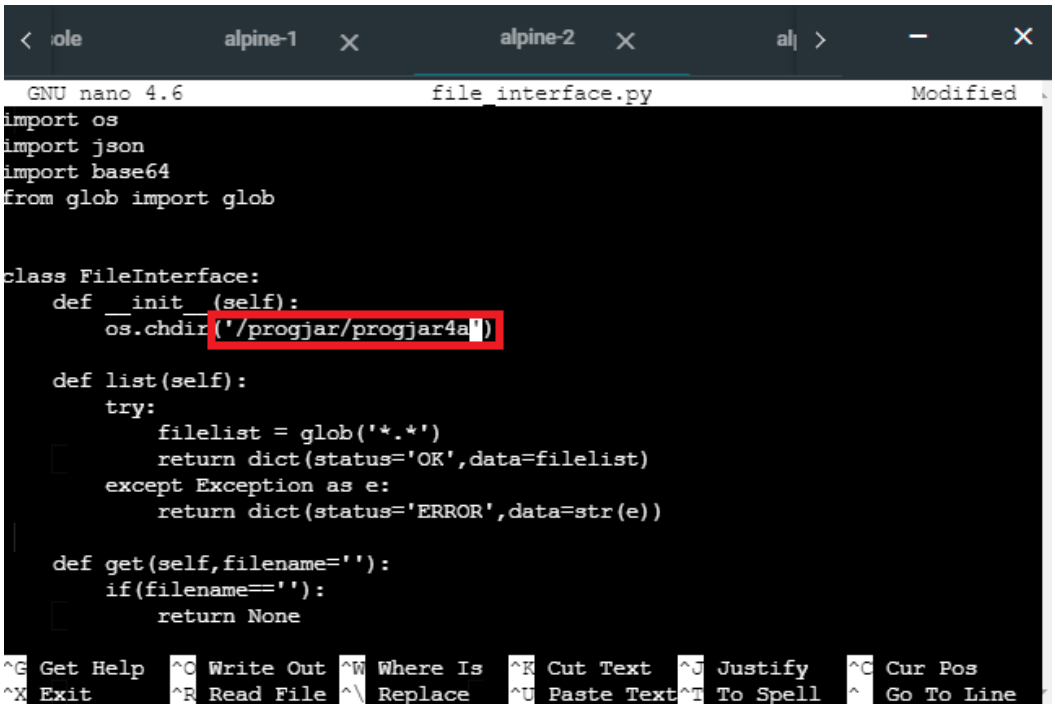
1. Load project yang sudah tersedia, kita bisa menggunakan project dengan 3 alpine
2. Jalankan command `git clone https://github.com/afiffadhlurrahman/Pemrograman_Jaringan_E.git` pada seluruh alpine.
3. Cek ifconfig dan sesuaikan IP alpine 1 pada file file_server.py



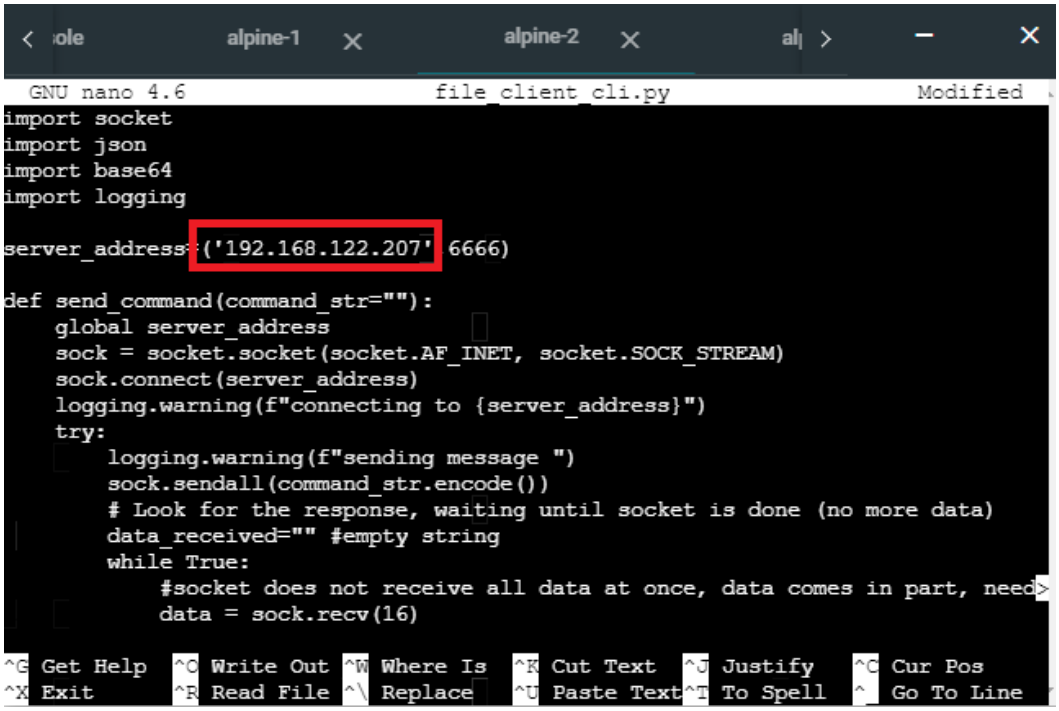

ole
alpine-1
alpine-2
al
GNU nano 4.6
file_server.py
Modified
hasil = fp.proses_string(d)
hasil=hasil+"\r\n\r\n"
self.connection.sendall(hasil.encode())
else:
break
self.connection.close()
class Server(threading.Thread):
def __init__(self,ipaddress='192.168.122.207',port=8889):
self.ipinfo=(ipaddress,port)
self.the_clients = []
self.my_socket = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
self.my_socket.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
threading.Thread.__init__(self)
def run(self):
logging.warning(f"server berjalan di ip address {self.ipinfo}")
self.my_socket.bind(self.ipinfo)
self.my_socket.listen(1)
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^_ Go To Line

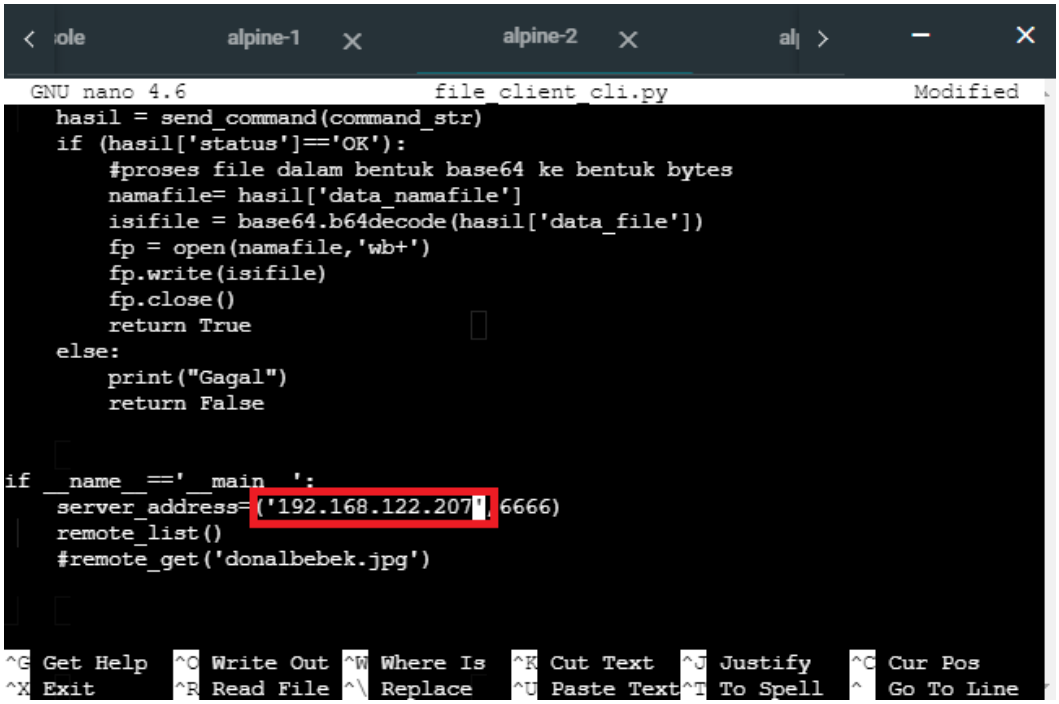

ole
alpine-1
alpine-2
al
GNU nano 4.6
file_server.py
Modified
def run(self):
logging.warning(f"server berjalan di ip address {self.ipinfo}")
self.my_socket.bind(self.ipinfo)
self.my_socket.listen(1)
while True:
self.connection, self.client_address = self.my_socket.accept()
logging.warning(f"connection from {self.client_address}")
clt = ProcessTheClient(self.connection, self.client_address)
clt.start()
self.the_clients.append(clt)
def main():
svr = Server(ipaddress='192.168.122.207',port=6666)
svr.start()
if __name__ == "__main__":
main()
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^_ Go To Line

4. Ubah directory yang terdapat pada file file_interface.py di alpine 2 (sesuaikan dengan path hasil clone).



5. Ubah IP address sesuai IP alpine 1 (server) pada file file_client_cli.py



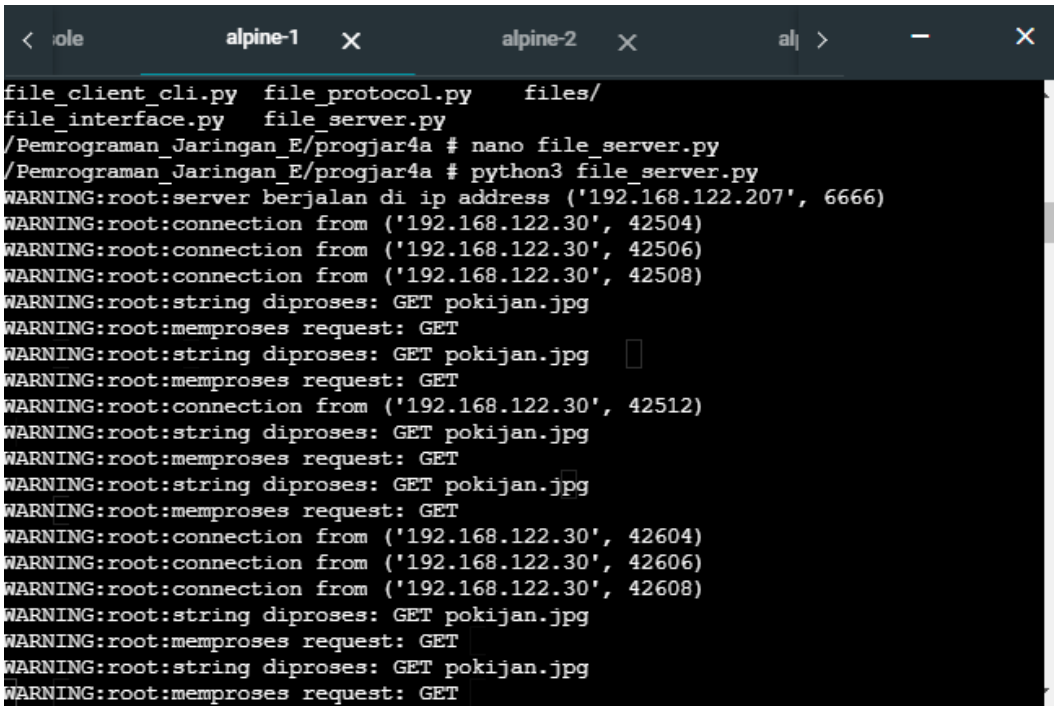


6. Buatlah file udp_multithread.py pada directory progjar4a di alpine 2

```python
from file_client_cli import remote_get
import time
import datetime
import threading
import socket

def send_all():
    texec = dict()
    daftar = 'pokijan.jpg'
    catat_awal = datetime.datetime.now()
    for k in range(100):
        print(f"mengirim {k}")
        waktu = time.time()
        # bagian ini merupakan bagian yang mengistruksikan eksekusi fungsi send
        texec[k] = threading.Thread(target=remote_get, args=(daftar,))
        texec[k].start()
    # setelah menyelesaikan tugasnya, dikembalikan ke main thread dengan join
    for k in range(100):
        texec[k].join()

    catat_akhir = datetime.datetime.now()
```

```
    selesai = catat_akhir - catat_awal
    print(f"Waktu TOTAL yang dibutuhkan {selesai} detik {catat_awal}
s/d{catat_akhir}")

# fungsi send all akan dijalankan secara multithreading
if __name__ == '__main__':
    send_all()
```

7. Jalankan udp_multithread.py
8. Hasil pada file server di alpine 1



9. Hasil pada file udp_multithread di alpine 2