Mengambil IP dari alpine-1 untuk menggati isi variable Target_IP pada chat_cli.py dan bind socket pada server_thread_chat.py karena alpine-1 akan menjadi tempat server dijalankan

```
@ praktikum
                          x 💰 alpine-1
                                                                                  x & alpine-3
     → C A Not secure 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/f8670367-7a09-4fa3-5
alpine-1 console is now available... Press RETURN to get started.
udhcpc (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending select for 192.168.122.251...
udhcpc failed to get a DHCP lease
No lease, forking to background
ok
 # ifconfig
eth0
          Link encap:Ethernet HWaddr 42:D5:EC:3C:BB:DB
          inet addr:192.168.122.251 Bcast:192.168.122.255 Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:182 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:24276 (23.7 KiB) TX bytes:3984 (3.8 KiB)
          Link encap:Local Loopback
10
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING MTU:65536 Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)
```

Setelah menjalankan server di alpine-1 jalankan chat-cli di alpine-2 dan 3

Untuk Auth

Untuk login: auth <user> <password>

Alpine-1

```
@ praktikum
                                 × 💰 alpine-1
                                                                     x 💰 alpine-2
                                                                                                         x 🛭 👶 alpine-3
  ← → C 🛕 Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/f8670367-7a09-4fa3
  # git clone --branch Tugas 5 https://github.com/aulkiller/Pemrograman Jaringan
D /home/work
Cloning into '/home/work'...
 remote: Enumerating objects: 455, done. remote: Counting objects: 100% (178/178), done.
remote: Counting objects: 100% (176/176), done.
remote: Total 455 (delta 96), reused 120 (delta 72), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 280.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5  # python3 server_thread_chat.py
WARNING:root:connection from ('192.168.122.95', 43416)
WARNING:root:connection from ('192.168.122.217', 53016)
WARNING:root:data dari client: auth messi surabaya
WARNING:root:AUTH: auth messi surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenid": "09b90289-a888-4011-828b-22dbc2c71686"}
WARNING:root:data dari client: auth lineker surabayay
WARNING:root:AUTH: auth lineker surabayay
WARNING:root:balas ke client: {"status": "ERROR", "message": "Password Salah"}
WARNING:root:data dari client: auth nyeker sby
WARNING:root:AUTH: auth nyeker sby
WARNING:root:balas ke client: {"status": "ERROR", "message": "User Tidak Ada"}
WARNING:root:data dari client: auth lineker surabaya
WARNING:root:AUTH: auth lineker surabaya
 ARNING:root:balas ke client: {"status": "OK", "tokenid": "765al18b-8bdf-4a8a-be35-bc215821cfbb"}
```

Alpine-2

```
g praktikum
                             x & alpine-1
                                                            x 💰 alpine-2
                                                                                           x 💰 alpine-3
  ← → C 🐧 Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/c6f2c698-fa5d-4108-
  # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
D /home/work
Cloning into '/home/work'...
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (172/172), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 93), reused 115 (delta 69), pack-reused 283
Receiving objects: 100% (455/455), 6.03 MiB | 1.30 MiB/s, done.
Resolving deltas: 100% (221/221), done.
 # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat
Command :auth messi surabaya
diterima dari server b'{"status": "OK", "tokenid": "09b90289-a888-4011-828b-22dbc2c7168' diterima dari server b'6"}\r\n\r\n'
end of string
 sername messi logged in, token 09b90289-a888-4011-828b-22dbc2c71686
  ommand 09b90289-a888-4011-828b-22dbc2c71686:
```

Alpine-3(Tes handling error login)

```
x & alpine-1
  praktikum
                                                     x & alpine-2
                                                                                 × 🔗 alpine-3
    → C 🛕 Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/3a0b72b4-dff4-4f89-b
 # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
D /home/work
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (178/178), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 100), reused 121 (delta 75), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 302.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
 # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5  # python3 chat-cli.py
Command :auth lineker surabayay
diterima dari server b'{"status": "ERROR", "message": "Password Salah"}\r\n\r\n'
end of string
Error, Password Salah
Command :auth nyeker sby
diterima dari server b'{"status": "ERROR", "message": "User Tidak Ada"}\r\n\r\n'
end of string
Error, User Tidak Ada
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfb'
diterima dari server b'b"}\r\n\r\n'
end of string
username lineker logged in, token 765a118b-8bdf-4a8a-be35-bc215821cfbb
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:
```

Untuk bertukar pesan

Untuk mengirim : send <user> <isi pesan>

Untuk menerima: inbox

Alpine-1

```
WARNING:root:data dari client: send 765al18b-8bdf-4a8a-be35-bc215821cfbb messi wangiwangi
WARNING:root:SEND: session 765al18b-8bdf-4a8a-be35-bc215821cfbb send message from lineker to messi
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: send 765al18b-8bdf-4a8a-be35-bc215821cfbb messi baubau
WARNING:root:SEND: session 765al18b-8bdf-4a8a-be35-bc215821cfbb send message from lineker to messi
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: inbox 09b90289-a888-4011-828b-22dbc2c71686

WARNING:root:INBOX: 09b90289-a888-4011-828b-22dbc2c71686

WARNING:root:balas ke client: {"status": "OK", "messages": {"lineker": [{"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}}
```

Alpine-2(Tes kirim ke user tidak ada dan dua pesan masuk)

Alpine-3

```
& praktikum
                            x & alpine-1
                                                           x 8 alpine-2
                                                                                         × € alpine-3
 ← → C 🛕 Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nod
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (178/178), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 100), reused 121 (delta 75), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 302.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat-cli.py
Command :auth lineker surabayay
diterima dari server b'{"status": "ERROR", "message": "Password Salah"}\r\n\r\n'
end of string
Error, Password Salah
Command :auth nyeker sby
diterima dari server b'{"status": "ERROR", "message": "User Tidak Ada"}\r\n\r\n'
end of string
Error, User Tidak Ada
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfb' diterima dari server b'b"}\r\n\r\n'
end of string
username lineker logged in, token 765a118b-8bdf-4a8a-be35-bc215821cfbb
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:inbox
diterima dari server b'{"status": "OK", "messages": {"messi": [{"msg_from": "Lionel Mes' diterima dari server b'si", "msg_to": "Gary Lineker", "msg": " astro \\r\\n"}]}}\r\n\r\n'
end of string
{"messi": [{"msg_from": "Lionel Messi", "msg_to": "Gary Lineker", "msg": " astro \r\n"}]}
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:send messi wangiwangi
send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi wangiwangi
diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to messi
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:send messi baubau
send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi baubau
diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to messi
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:
```