

Tugas Menjalankan Program Chat di Emulator



OLEH :

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PEMROGRAMAN JARINGAN - E

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S1 TEKNIK INFORMATIKA

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Tugas Menjalankan Program Chat di Emulator.

Jalankan program chat tersebut di EMULATOR. lakukan menggunakan konfigurasi

- 1 mesin berfungsi sebagai chat server
- 2 mesin berfungsi sebagai chat client

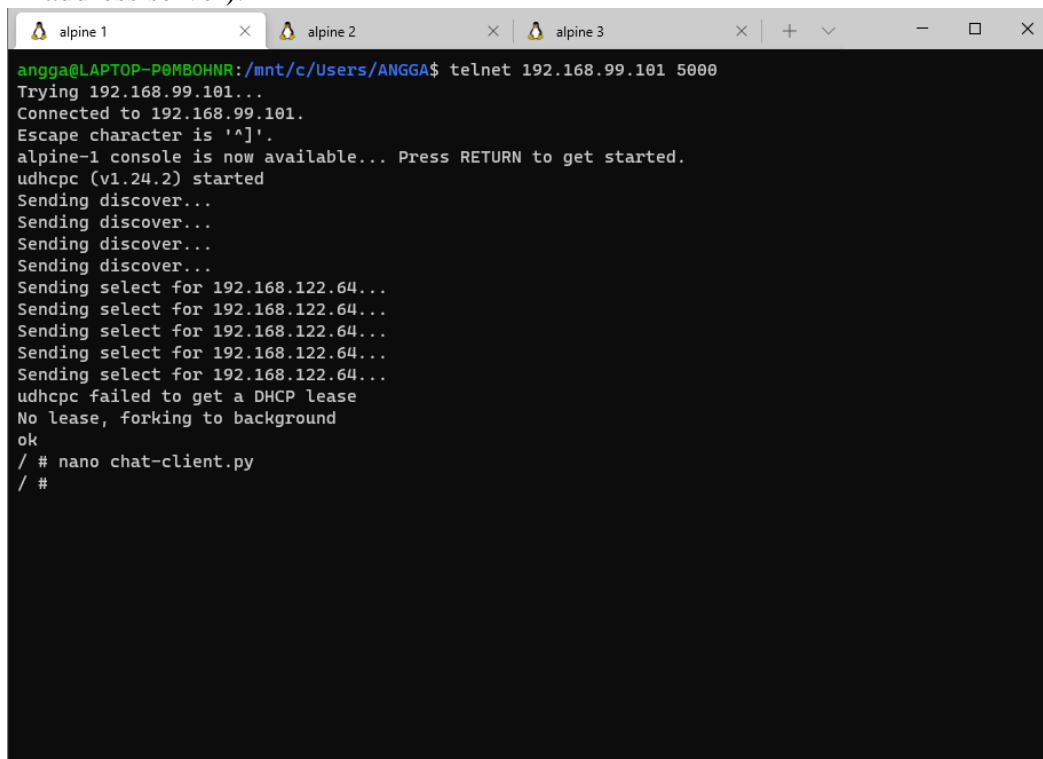
buatlah interaksi antara 2 mesin client dengan server. lakukan aktifitas-aktifitas berikut ini

- authentication
- berkirim pesan antar user

dan capturelah ke dalam gambar, dan submitlah dalam bentuk 1 dokumen PDF. berikan PENJELASAN SINGKAT dari hasil capture anda

Penjelasan singkat:

1. Menentukan alpine 1 dan 2 sebagai client, sedangkan alpine 3 sebagai server.
2. Membuat file chat-client.py di alpine 1 dan 2 (Jangan lupa IP addressnya sesuaikan dengan IP address server).



```
alpine 1 x alpine 2 x alpine 3 x + - □ x
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5000
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^]'.
alpine-1 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ #
```

```
alpine 1  x  alpine 2  x  alpine 3  +  -  □  X
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5002
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^]'.
alpine-2 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # |
```

3. Membuat file `server_thread_chat.py` di alpine 3. Dan juga tambahkan `chat.py` karena file ini menerima semua kegiatan yang terjadi di `chat-client.py`.

```
alpine 1  x  alpine 2  x  alpine 3  +  -  □  X
Escape character is '^]'.
alpine-3 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # ifconfig
eth0      Link encap:Ethernet  HWaddr 2A:2D:B6:59:95:BD
          inet addr:192.168.122.188  Bcast:192.168.122.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:273 errors:0 dropped:5 overruns:0 frame:0
          TX packets:13 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:22930 (22.3 KiB)  TX bytes:3642 (3.5 KiB)

lo        Link encap:Local Loopback
          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)

/ # nano chat.py
/ # nano server_thread_chat.py
/ # |
```

4. Jalankan `server_thread_chat.py`. Kemudian, pada alpine 1 dan 2 melakukan authentication dengan command “`auth<spasi>nama user<spasi>password`”.

```
alpine 1 x alpine 2 x alpine 3 x + - □ x
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5000
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^]'.
alpine-1 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth henderson surabaya
diterima dari server b'{"status": "OK", "tokenId": "8c32da3c-6772-48d0-a51d-875e90502d9"}\r\n\r\n'
end of string
username henderson logged in, token 8c32da3c-6772-48d0-a51d-875e90502d9a
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:
```

```
alpine 1 x alpine 2 x alpine 3 x + - □ x
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5000
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^]'.
alpine-2 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenId": "c0509264-e43b-49f7-b7d0-3f4b2533b82"}\r\n\r\n'
end of string
username lineker logged in, token c0509264-e43b-49f7-b7d0-3f4b2533b825
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:
```

5. Melihat notifikasi authentication pada server (alpine 3).

```
alpine 1 x alpine 2 x alpine 3 x + - □ ×
RX packets:273 errors:0 dropped:5 overruns:0 frame:0
TX packets:13 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:22930 (22.3 KiB) TX bytes:3642 (3.5 KiB)

lo    Link encap:Local Loopback
      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)

/ # nano chat.py
/ # nano server_thread_chat.py
/ # python3 server_thread_chat.py
WARNING:root:connection from ('192.168.122.82', 55578)
WARNING:root:connection from ('192.168.122.64', 42046)
WARNING:root:data dari client: auth henderson surabaya

WARNING:root:AUTH: auth henderson surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenid": "8c32da3c-6772-48d0-a51d-875e90502d9a"}

WARNING:root:data dari client: auth lineker surabaya

WARNING:root:AUTH: auth lineker surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenid": "c0509264-e43b-49f7-b7d0-3f4b2533b825"}

|
```

6. Pada client (alpine 1 dan 2), melakukan pengiriman pesan antar user dengan command “send<spasi>nama user<spasi>pesan yang mau dikirim”.

```
alpine 1 x alpine 2 x alpine 3 x + - □ ×
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5000
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^J'.
alpine-1 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth henderson surabaya
diterima dari server b'{"status": "OK", "tokenid": "8c32da3c-6772-48d0-a51d-875e90502d9a"}\n'
diterima dari server b'a"}\n\n'
end of string
username henderson logged in, token 8c32da3c-6772-48d0-a51d-875e90502d9a
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:send lineker ur greatest footballer in England
send 8c32da3c-6772-48d0-a51d-875e90502d9a lineker ur greatest footballer in England

diterima dari server b'{"status": "OK", "message": "Message Sent"}\n\n'
end of string
message sent to lineker
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:|
```

```
alpine 1  alpine 2  alpine 3
angga@LAPTOP-P0MBOHNR:/mnt/c/Users/ANGGA$ telnet 192.168.99.101 5002
Trying 192.168.99.101...
Connected to 192.168.99.101.
Escape character is '^J'.
alpine-2 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenId": "c0509264-e43b-49f7-b7d0-3f4b2533b825"}\r\n\r\n'
end of string
username lineker logged in, token c0509264-e43b-49f7-b7d0-3f4b2533b825
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:send henderson kapten terbaik liverpool 5 tahun terakhir! salam kenal
*Maaf, command tidak benar
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:send henderson halo kapten terbaik Liverpool 5 tahun terakhir
send c0509264-e43b-49f7-b7d0-3f4b2533b825 henderson halo kapten terbaik Liverpool 5 tahun terakhir

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to henderson
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:|
```

7. Cek notifikasi pengiriman pesan antar client pada server (alpine 3)

```
alpine 1  alpine 2  alpine 3
/ # python3 server_thread_chat.py
WARNING:root:connection from ('192.168.122.82', 55578)
WARNING:root:connection from ('192.168.122.64', 42046)
WARNING:root:data dari client: auth henderson surabaya

WARNING:root:AUTH: auth henderson surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenId": "8c32da3c-6772-48d0-a51d-875e90502d9a"}

WARNING:root:data dari client: auth lineker surabaya

WARNING:root:AUTH: auth lineker surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenId": "c0509264-e43b-49f7-b7d0-3f4b2533b825"}

WARNING:root:data dari client: send 8c32da3c-6772-48d0-a51d-875e90502d9a lineker ur greatest footballer in England

WARNING:root:SEND: session 8c32da3c-6772-48d0-a51d-875e90502d9a send message from henderson to lineker
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: send c0509264-e43b-49f7-b7d0-3f4b2533b825 henderson halo kapten terbaik Liverpool 5 tahun terakhir

WARNING:root:SEND: session c0509264-e43b-49f7-b7d0-3f4b2533b825 send message from lineker to henderson
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}
```

8. Pada alpine 1 dan 2 melakukan pengecekan inbox pesan yang sudah masuk

```

Sending discover...
Sending discover...
Sending discover...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
Sending select for 192.168.122.64...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth henderson surabaya
diterima dari server b'{"status": "OK", "tokenid": "8c32da3c-6772-48d0-a51d-875e90502d9"}'
diterima dari server b'a'}\r\n\r\n'
end of string
username henderson logged in, token 8c32da3c-6772-48d0-a51d-875e90502d9a
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:send lineker ur greatest footballer in England
send 8c32da3c-6772-48d0-a51d-875e90502d9a lineker ur greatest footballer in England

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to lineker
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:inbox
diterima dari server b'{"status": "OK", "messages": {"lineker": [{"msg_from": "Gary Lin"}]}'
diterima dari server b'eker", "msg_to": "Jordan Henderson", "msg": " halo kapten terba"}'
diterima dari server b'ik Liverpool 5 tahun terakhir \\r\\n\\n}}}}\r\n\r\n'
end of string
{"lineker": [{"msg_from": "Gary Lineker", "msg_to": "Jordan Henderson", "msg": " halo kapten terbaik Liverpool 5 tahun terakhir \\r\\n\\n"}]}
Command 8c32da3c-6772-48d0-a51d-875e90502d9a:

```

```

alpine 1      alpine 2      alpine 3
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # nano chat-client.py
/ # python3 chat-client.py
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenid": "c0509264-e43b-49f7-b7d0-3f4b2533b82"}'
diterima dari server b'5'}\r\n\r\n'
end of string
username lineker logged in, token c0509264-e43b-49f7-b7d0-3f4b2533b825
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:send henderson kapten terbaik liverpool 5 tahun terakhir! salam kenal
*Maaf, command tidak benar
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:send henderson halo kapten terbaik Liverpool 5 tahun terakhir
send c0509264-e43b-49f7-b7d0-3f4b2533b825 henderson halo kapten terbaik Liverpool 5 tahun terakhir

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to henderson
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:inbox
diterima dari server b'{"status": "OK", "messages": [{"henderson": [{"msg_from": "Jordan"}
diterima dari server b' Henderson", "msg_to": "Gary Lineker", "msg": " ur greatest foo'
diterima dari server b'tballer in England \\\r\n\n"]}]}\r\n\r\n'
end of string
{"henderson": [{"msg_from": "Jordan Henderson", "msg_to": "Gary Lineker", "msg": " ur greatest footballer in England \\\r\n\n"]}]
Command c0509264-e43b-49f7-b7d0-3f4b2533b825:|

```