

**PRAKTIKUM
JARINGAN KOMPUTER
(Computer Networking)**

**LAPORAN TUGAS
Ujian Akhir Semester IV**



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**PROGRAM STUDI INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH
SURAKARTA**

DHCP Gedung Ekonomi

Dosen Ekonomi

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: **FastEthernet0** Service: ☒ On ☐ Off

Pool Name:

Default Gateway:

DNS Server:

Start IP Address:

Subnet Mask:

Maximum Number of Users:

TFTP Server:

WLC Address:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Users	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.1	13	0.0.0.0	0.0.0.0

☐ Top

Mhs Ekonomi

Physical Config **Services** Desktop Programming Attributes

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DHCP

Interface: **FastEthernet0** Service: ☒ On ☐ Off

Pool Name:

Default Gateway:

DNS Server:

Start IP Address:

Subnet Mask:

Maximum Number of Users:

TFTP Server:

WLC Address:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Users	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.1	128	0.0.0.0	0.0.0.0

☐ Top

DHCP Gedung Teknik

Dosen Teknik

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
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DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.80.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 80 3

Subnet Mask: 255 255 255 240

Maximum Number of Users: 11

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	VLAN	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.1	13	0.0.0.0	0.0.0.0

☐ Top

Mhs Teknik

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
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DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.70.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 70 3

Subnet Mask: 255 255 255 192

Maximum Number of Users: 55

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	VLAN	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.1	61	0.0.0.0	0.0.0.0

☐ Top

DHCP Gedung FKI

Dosen FKI

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
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- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.40.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 40 3

Subnet Mask: 255 255 255 240

Maximum Number of Users: 13

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Use	TFTP Server	WLC Address
serverPool	192.168.40.1	192.168.90.3	192.168.40.3	255.255.255.240	13	0.0.0.0	0.0.0.0

☐ Top

Mhs FKI

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.30.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 30 4

Subnet Mask: 255 255 255 128

Maximum Number of Users: 124

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Use	TFTP Server	WLC Address
serverPool	192.168.30.1	192.168.90.3	192.168.30.4	255.255.255.128	124	0.0.0.0	0.0.0.0

☐ Top

DHCP Gedung FKIP

Dosen FKIP

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.20.1

DNS Server: 192.168.90.3

Start IP Address: 0 0 0 0

Subnet Mask: 0 0 0 0

Maximum Number of Users: 13

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Users	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	0.0.0.0	0.0.0.0	13	0.0.0.0	0.0.0.0

☐ Top

Mhs FKIP

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
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DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.10.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 10 4

Subnet Mask: 255 255 255 0

Maximum Number of Users: 205

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max Users	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.255	205	0.0.0.0	0.0.0.0

☐ Top

DHCP Gedung Server

Server DNS

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
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- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

Start IP Address: 192 168 90 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 255

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	VLAN	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	192.168.1	255.255.1	255	0.0.0.0	0.0.0.0

Server Web

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.90.1

DNS Server: 192.168.90.3

Start IP Address: 192 168 90 0

Subnet Mask: 255 255 255 0

Maximum Number of Users: 255

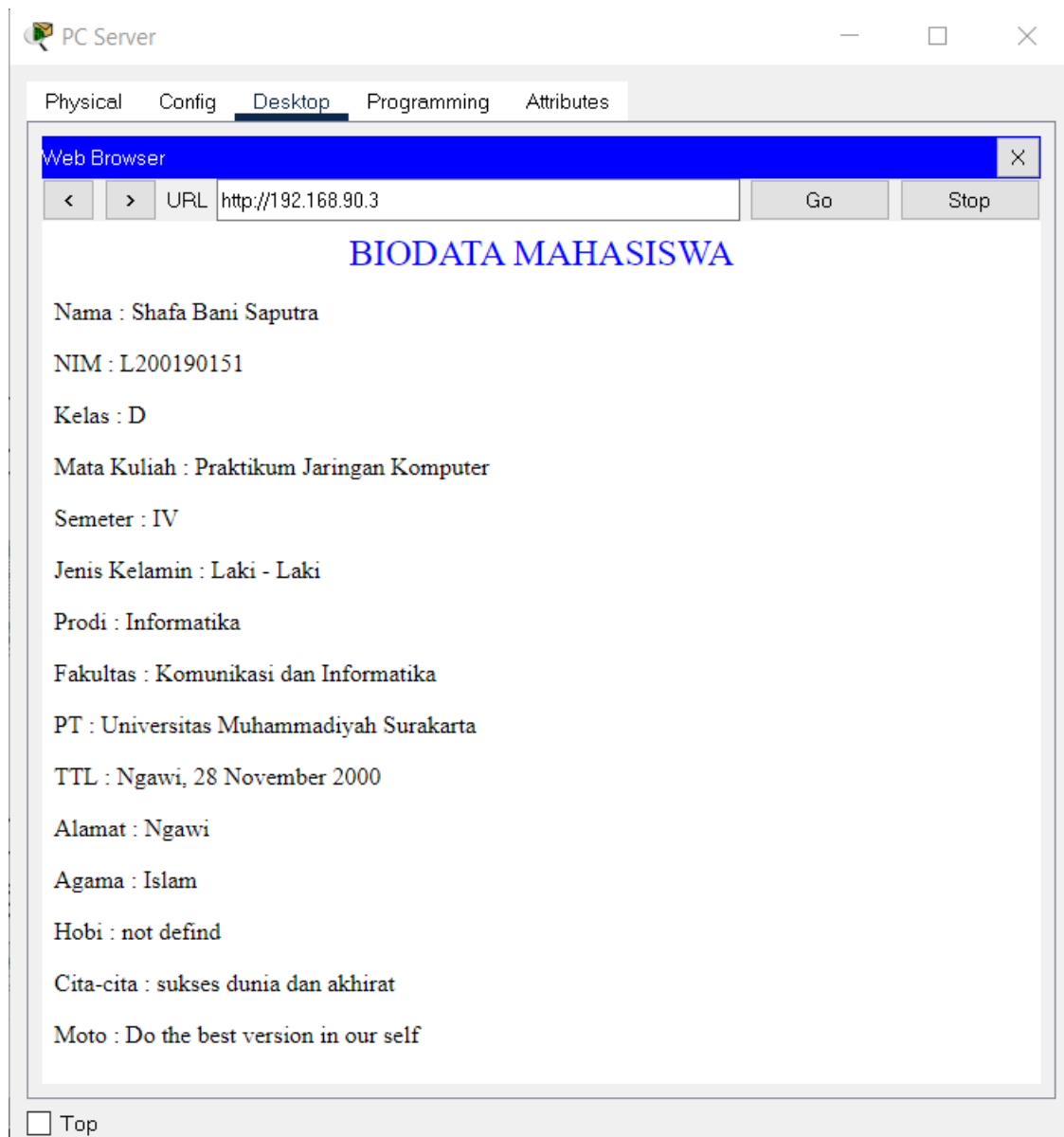
TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

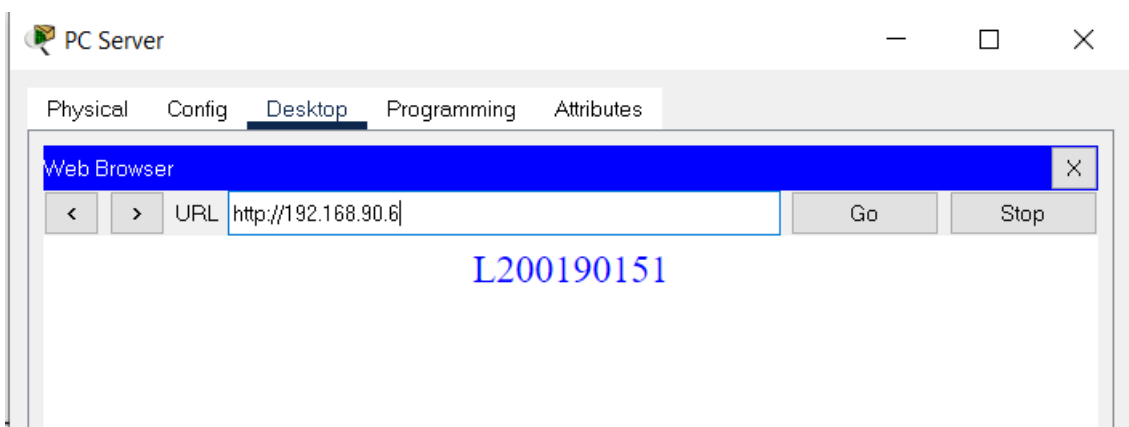
Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	VLAN	TFTP Server	WLC Address
serverPool	192.168.1	192.168.1	192.168.1	255.255.1	255	0.0.0.0	0.0.0.0

Biodata pada Server Web



Nim pada Server DNS



Ping pada Gedung ekonomi

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::260:70FF:FE63:7A6B
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.50.11
    Subnet Mask . . . . .: 255.255.255.128
    Default Gateway . . . . .: ::
                                   192.168.50.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

C:\>ping 192.168.50.22

Pinging 192.168.50.22 with 32 bytes of data:

Reply from 192.168.50.22: bytes=32 time=100ms TTL=128
Reply from 192.168.50.22: bytes=32 time=145ms TTL=128
Reply from 192.168.50.22: bytes=32 time=47ms TTL=128
Reply from 192.168.50.22: bytes=32 time=6ms TTL=128

Ping statistics for 192.168.50.22:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 6ms, Maximum = 145ms, Average = 74ms

C:\>
```

Ping pada Gedung Fki

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::201:C7FF:FE8B:B3D2
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.30.4
    Subnet Mask . . . . .: 255.255.255.128
    Default Gateway . . . . .: ::
                                   192.168.30.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

C:\>ping 192.168.30.10

Pinging 192.168.30.10 with 32 bytes of data:

Reply from 192.168.30.10: bytes=32 time=349ms TTL=128
Reply from 192.168.30.10: bytes=32 time=134ms TTL=128
Reply from 192.168.30.10: bytes=32 time<1ms TTL=128
Reply from 192.168.30.10: bytes=32 time=10ms TTL=128

Ping statistics for 192.168.30.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 349ms, Average = 123ms

C:\>
```

Ping pada Gedung FKIP

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::202:17FF:FE61:E537
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.10.9
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                   192.168.10.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

C:\>ping 192.168.10.17

Pinging 192.168.10.17 with 32 bytes of data:

Reply from 192.168.10.17: bytes=32 time=10ms TTL=128
Reply from 192.168.10.17: bytes=32 time=11ms TTL=128
Reply from 192.168.10.17: bytes=32 time<1ms TTL=128
Reply from 192.168.10.17: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.17:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 5ms

C:\>
```

Ping pada Gedung Teknik

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::260:3EFF:FEAC:29D3
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.70.21
    Subnet Mask . . . . .: 255.255.255.192
    Default Gateway . . . . .: ::
                                   192.168.70.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

C:\>ping 192.168.70.24

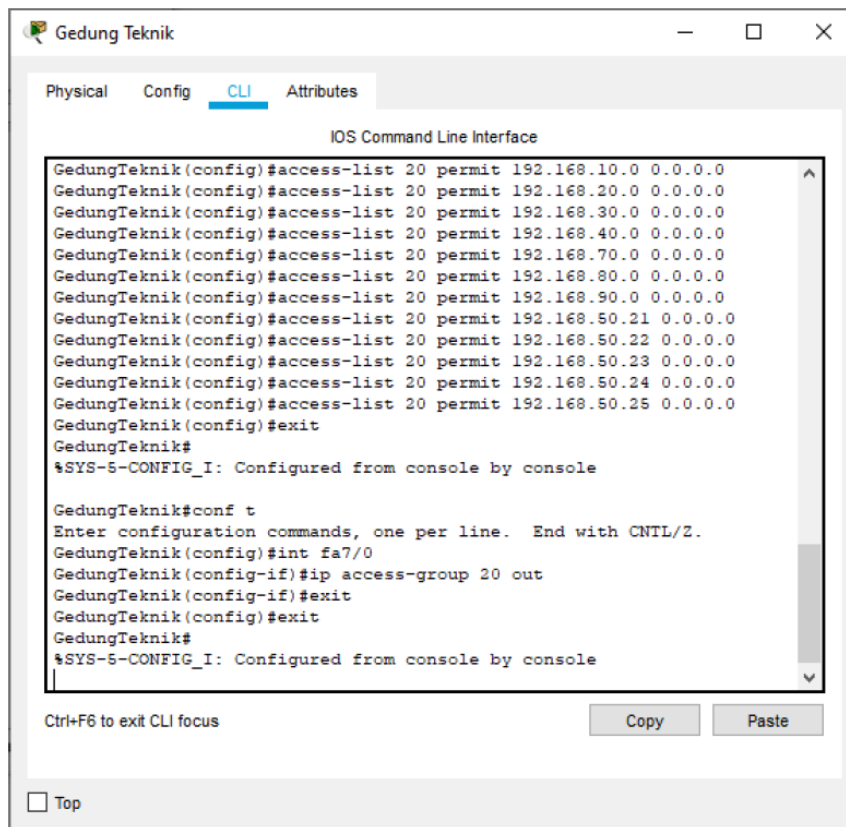
Pinging 192.168.70.24 with 32 bytes of data:

Reply from 192.168.70.24: bytes=32 time<1ms TTL=128
Reply from 192.168.70.24: bytes=32 time<1ms TTL=128
Reply from 192.168.70.24: bytes=32 time=244ms TTL=128
Reply from 192.168.70.24: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.70.24:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 244ms, Average = 61ms

C:\>
```

Access nim ganjil

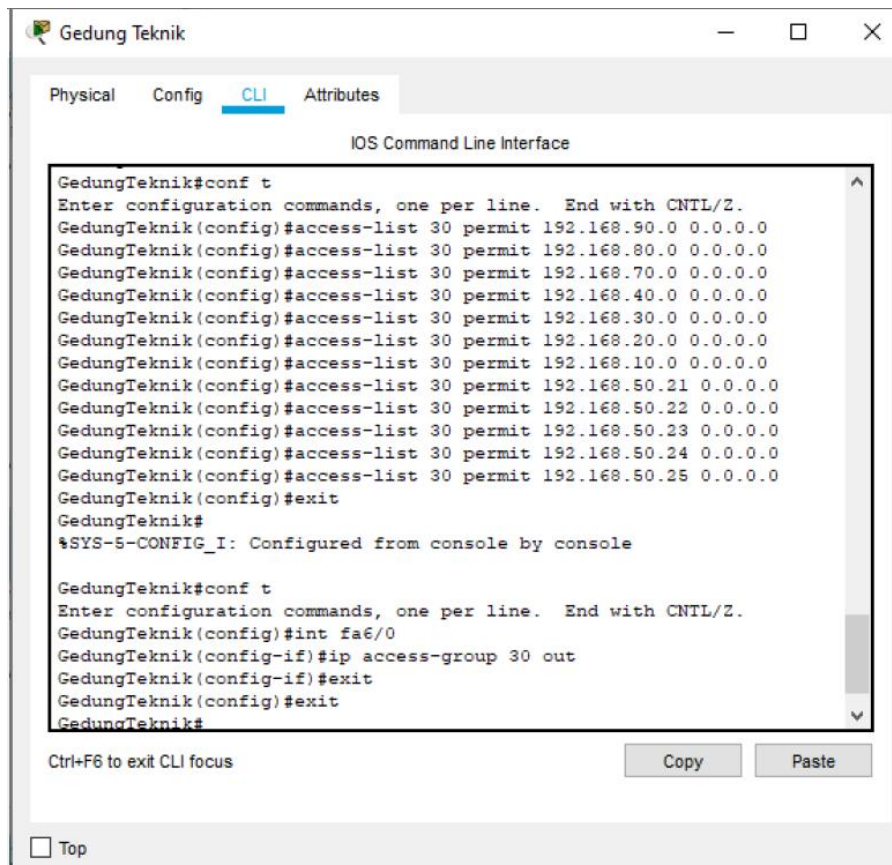


The screenshot shows a window titled "Gedung Teknik" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The commands entered are:

```
GedungTeknik(config)#access-list 20 permit 192.168.10.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.20.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.30.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.40.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.70.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.80.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.90.0 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.50.21 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.50.22 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.50.23 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.50.24 0.0.0.0
GedungTeknik(config)#access-list 20 permit 192.168.50.25 0.0.0.0
GedungTeknik(config)#exit
GedungTeknik#
%SYS-5-CONFIG_I: Configured from console by console

GedungTeknik#conf t
Enter configuration commands, one per line. End with CNTL/Z.
GedungTeknik(config)#int fa7/0
GedungTeknik(config-if)#ip access-group 20 out
GedungTeknik(config-if)#exit
GedungTeknik(config)#exit
GedungTeknik#
%SYS-5-CONFIG_I: Configured from console by console
```

Below the CLI window, there is a "Ctrl+F6 to exit CLI focus" label and "Copy" and "Paste" buttons. A "Top" button is also visible at the bottom left.



The screenshot shows the same "Gedung Teknik" window, but with different CLI commands entered:

```
GedungTeknik#conf t
Enter configuration commands, one per line. End with CNTL/Z.
GedungTeknik(config)#access-list 30 permit 192.168.90.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.80.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.70.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.40.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.30.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.20.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.10.0 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.50.21 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.50.22 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.50.23 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.50.24 0.0.0.0
GedungTeknik(config)#access-list 30 permit 192.168.50.25 0.0.0.0
GedungTeknik(config)#exit
GedungTeknik#
%SYS-5-CONFIG_I: Configured from console by console

GedungTeknik#conf t
Enter configuration commands, one per line. End with CNTL/Z.
GedungTeknik(config)#int fa6/0
GedungTeknik(config-if)#ip access-group 30 out
GedungTeknik(config-if)#exit
GedungTeknik(config)#exit
GedungTeknik#
```

The "Top" button is now disabled. The "Copy" and "Paste" buttons remain visible.

Konfigurasi NAT pada Server WEB

