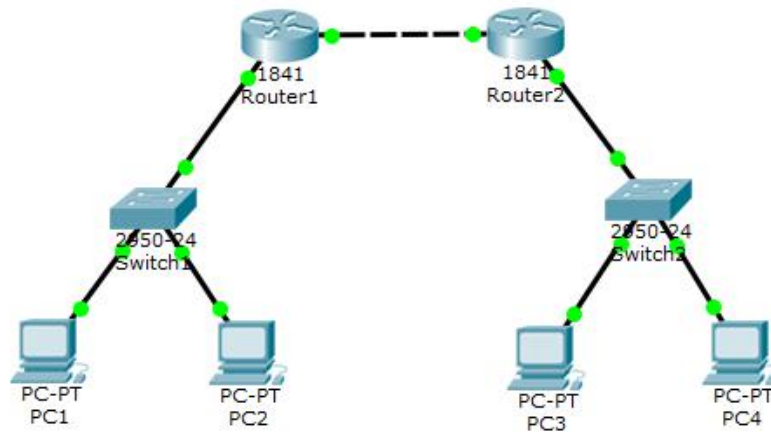Nama   : Lail Nur Rachman
NIM   : L200170137
Kelas C

MODUL 8

Kegiatan 1. Konfigurasi Access List

Konfigurasi alamat IP untuk Switch1

Konfigurasi alamat IP untuk Switch2

Konfigurasi alamat IP, subnet mask, dan default gateway pada PC1, PC2, PC3 dan PC4.
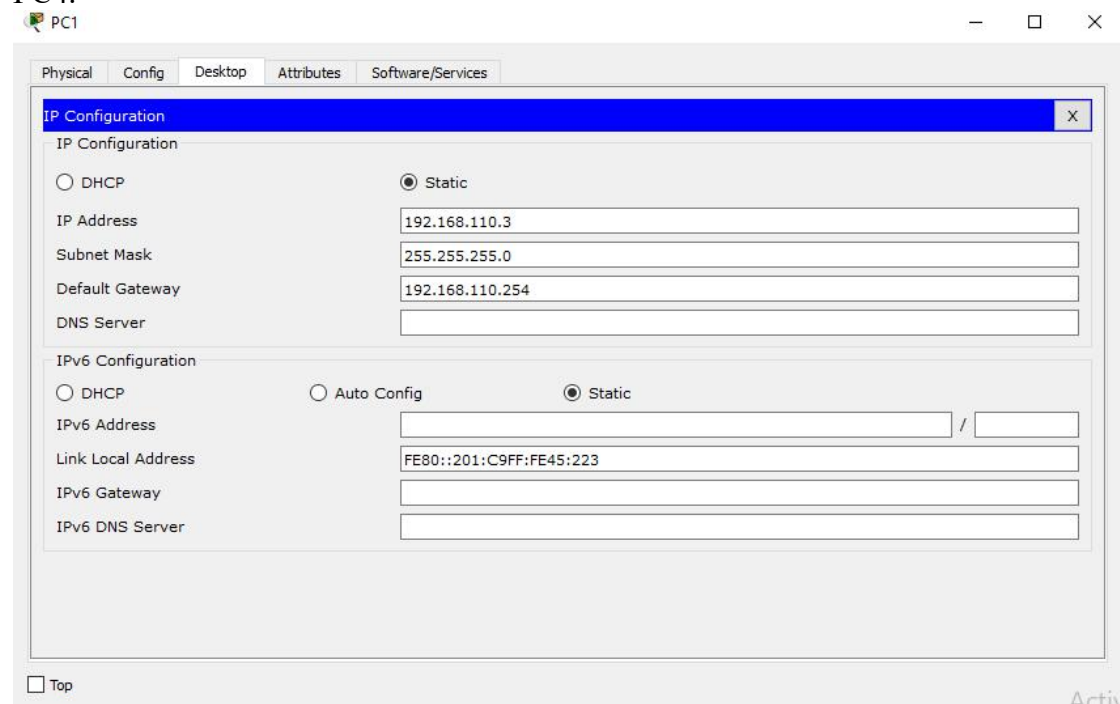
PC2

Physical | Config | Desktop | Attributes | Software/Services

IP Configuration X

IP Configuration

○ DHCP ● Static

IP Address: 192.168.110.4

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.110.254

DNS Server:

IPv6 Configuration

○ DHCP ○ Auto Config ● Static

IPv6 Address: /

Link Local Address: FE80::204:9AFF:FED0:46B9

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

Activ

PC3

Physical | Config | Desktop | Attributes | Software/Services

IP Configuration X

IP Configuration

○ DHCP ● Static

IP Address: 192.168.120.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.120.254

DNS Server:

IPv6 Configuration

○ DHCP ○ Auto Config ● Static

IPv6 Address: /

Link Local Address: FE80::206:2AFF:FEB8:DA89

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

Activ
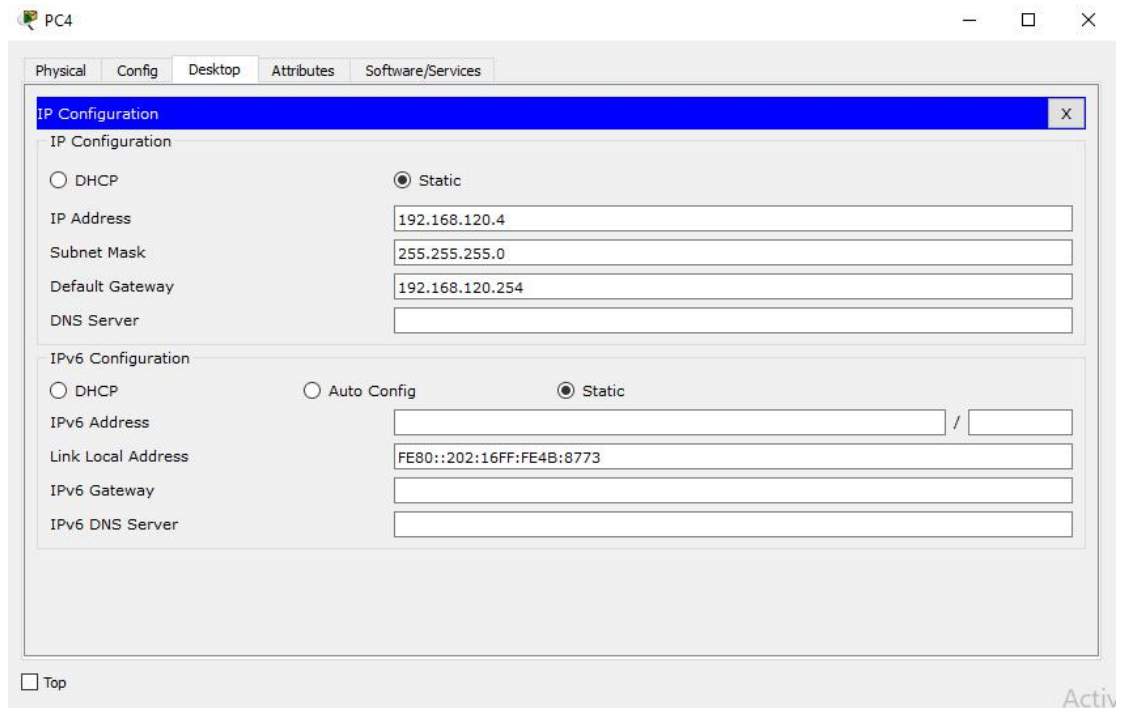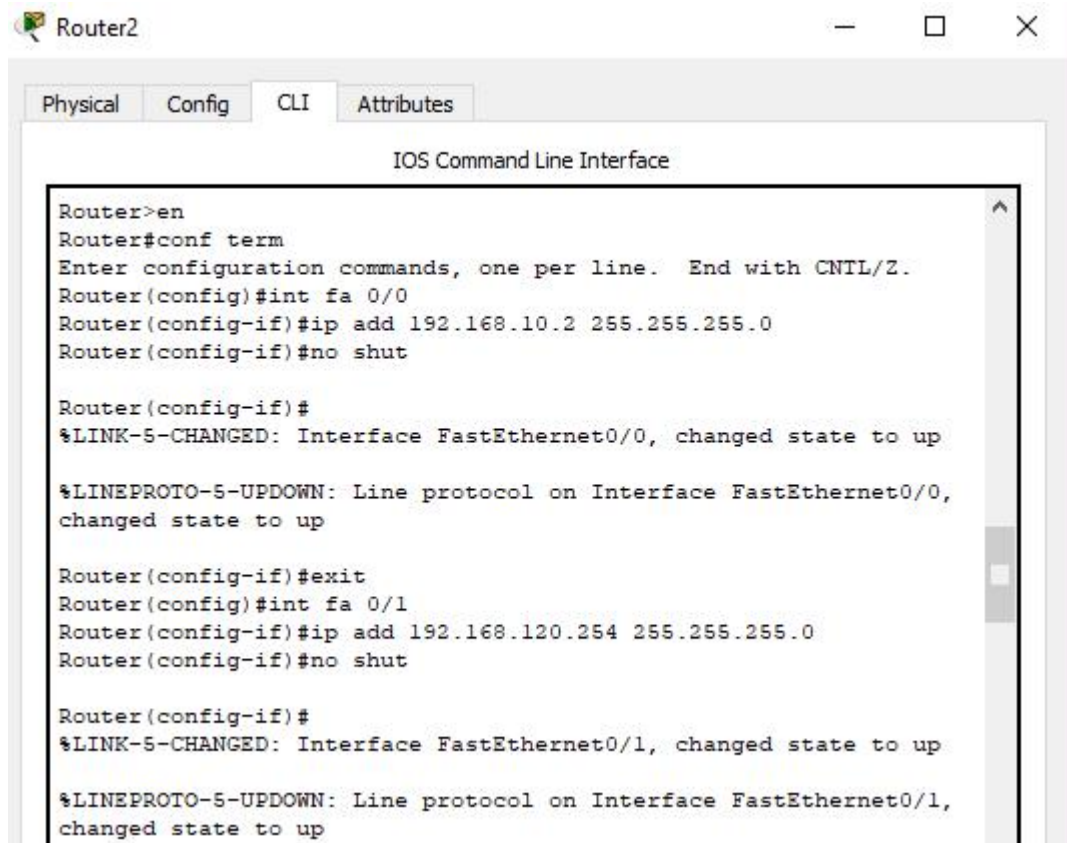
Konfigurasi IP dan Interface pada Router1 dan Router 2.
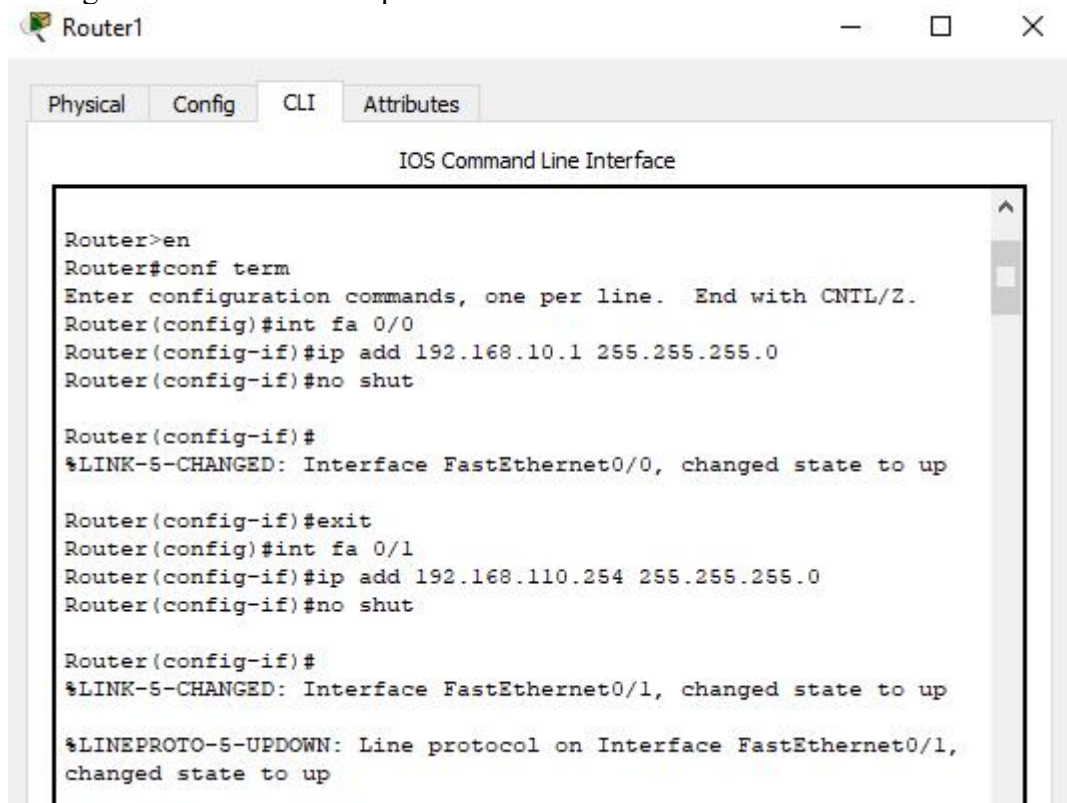

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip add 192.168.10.1 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#int fa 0/1
Router(config-if)#ip add 192.168.110.254 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up
```
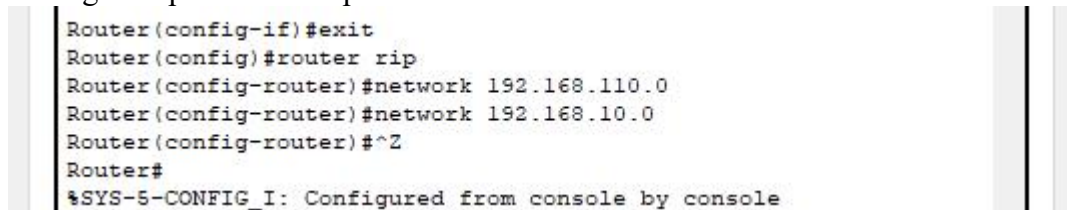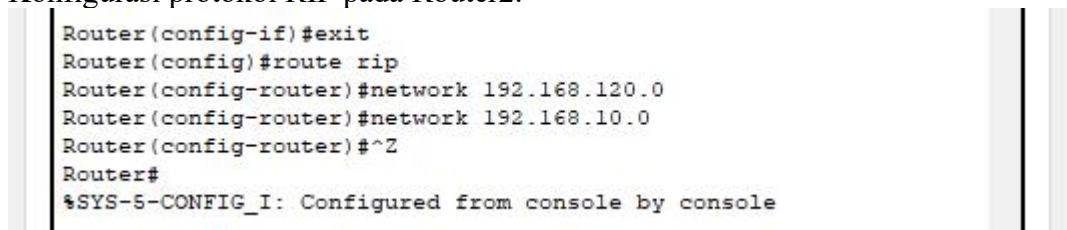
Konfigurasi protokol RIP pada Router1.

```
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 192.168.110.0
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Konfigurasi protokol RIP pada Router2.

```
Router(config-if)#exit
Router(config)#route rip
Router(config-router)#network 192.168.120.0
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Pengecekan tabel routing pada kedua router dengan perintah [show ip route].

Router1

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile,
B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter
area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external
type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E -
EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia -
IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.10.0/24 is directly connected, FastEthernet0/0
C    192.168.110.0/24 is directly connected, FastEthernet0/1
R    192.168.120.0/24 [120/1] via 192.168.10.2, 00:00:13,
FastEthernet0/0
```
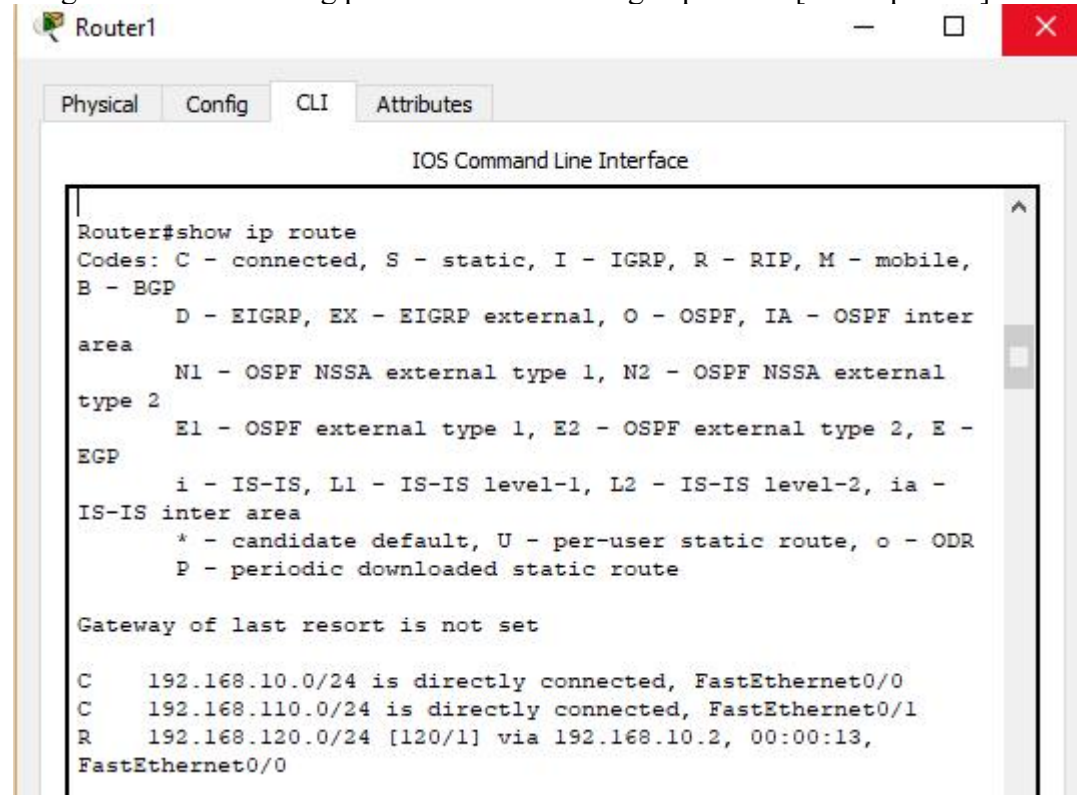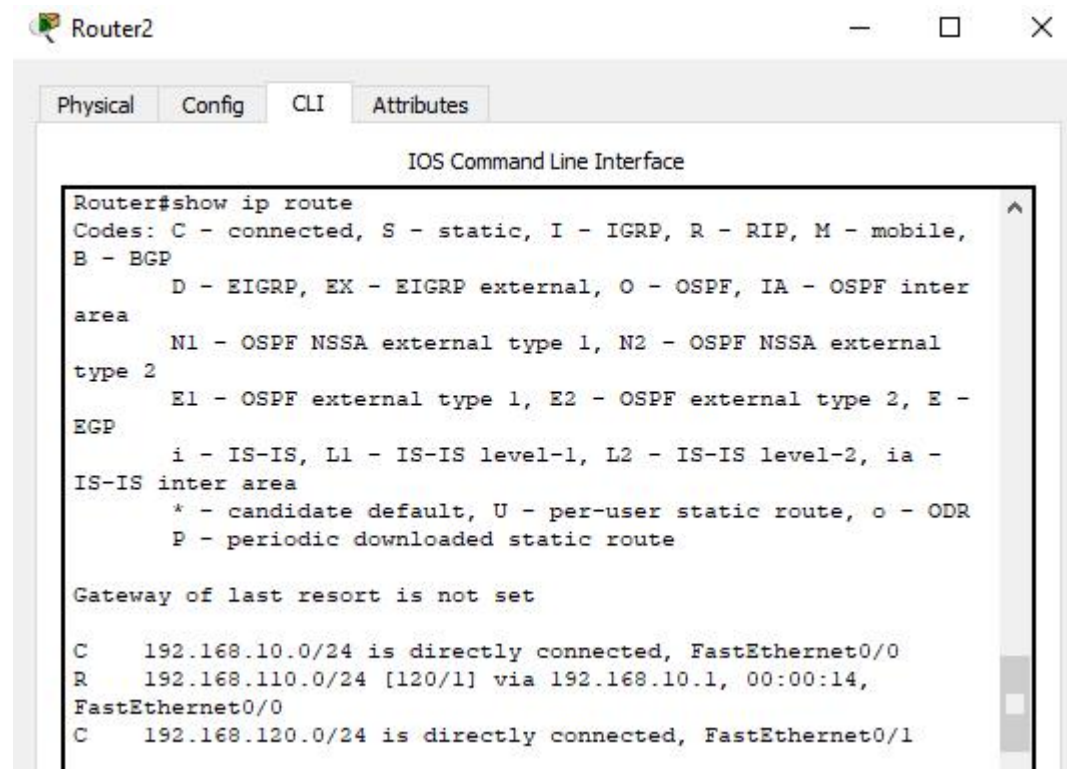

Router2

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile,
B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter
area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external
type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E -
EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia -
IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.10.0/24 is directly connected, FastEthernet0/0
R    192.168.110.0/24 [120/1] via 192.168.10.1, 00:00:14,
FastEthernet0/0
C    192.168.120.0/24 is directly connected, FastEthernet0/1
```

Tes koneksi dari PC1 ke PC4.

```
C:\>ping 192.168.120.4

Pinging 192.168.120.4 with 32 bytes of data:

Reply from 192.168.120.4: bytes=32 time=1ms TTL=126
Reply from 192.168.120.4: bytes=32 time=1ms TTL=126
Reply from 192.168.120.4: bytes=32 time=1ms TTL=126
Reply from 192.168.120.4: bytes=32 time=13ms TTL=126

Ping statistics for 192.168.120.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 13ms, Average = 4ms
```

Access List yang mengijinkan semua host dari jaringan 192.168.120.0 dapat mengakses jaringan 192.168.100.0

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 10 permit 192.168.120.0 0.0.255.255
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Access List pada Interface Router1.
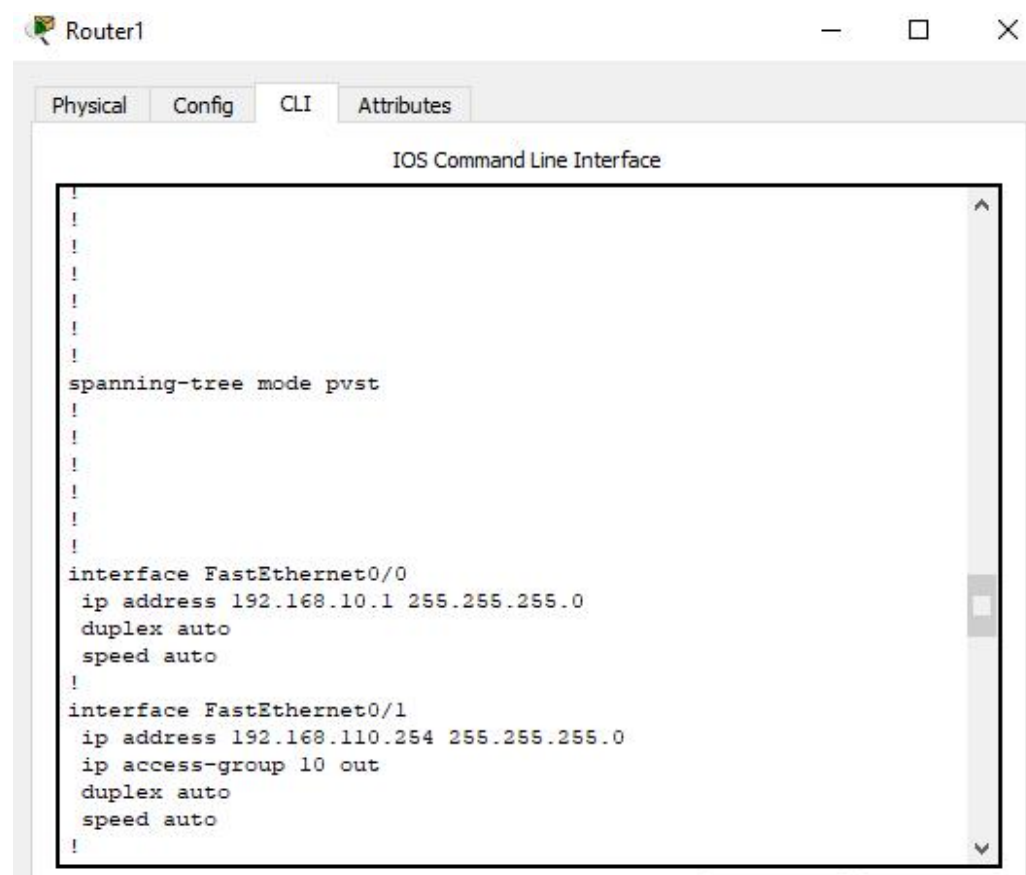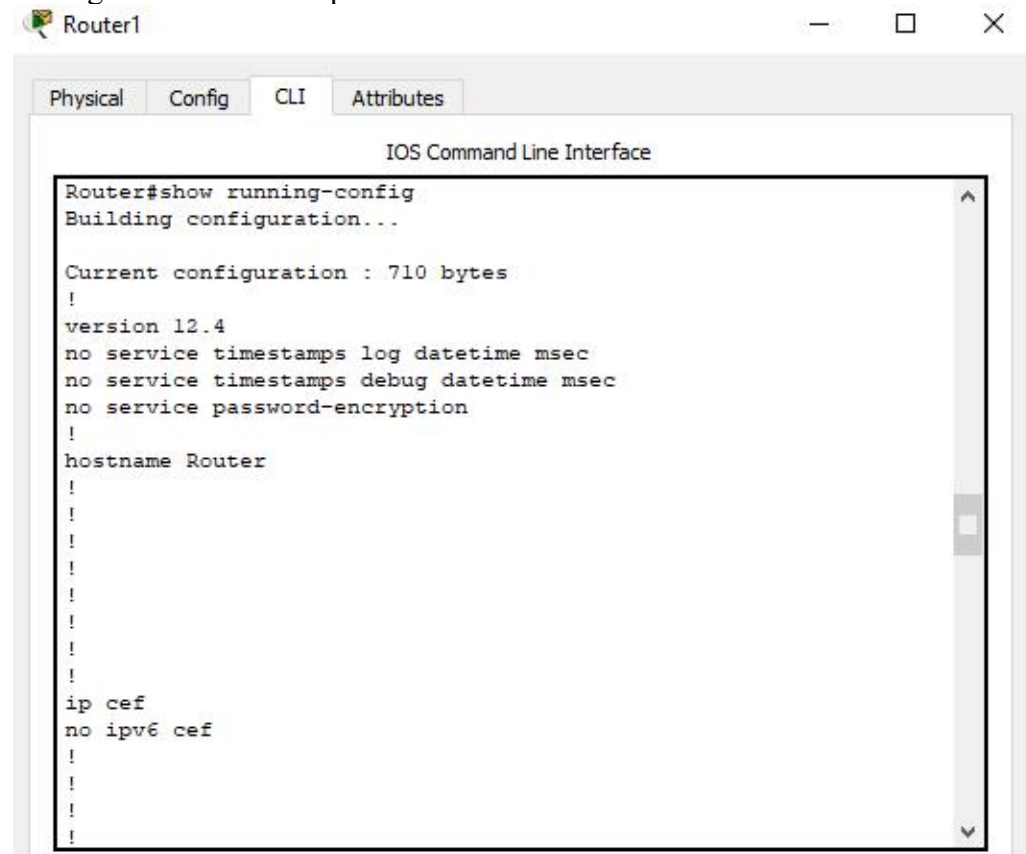
```
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 0/1
Router(config-if)#ip access-group 10 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Menampilkan konfigurasi Access List pada Router1.

```
Router#show access-lists
Standard IP access list 10
    10 permit 192.168.0.0 0.0.255.255
```

Konfigurasi Access List pada Ethernet1.

Router1   — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router#show running-config
Building configuration...

Current configuration : 710 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
!
!
!
```

Router1   — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
!
!
!
!
!
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 192.168.10.1 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 ip address 192.168.110.254 255.255.255.0
 ip access-group 10 out
 duplex auto
 speed auto
!
```

```
no ip address
 shutdown
!
router rip
 network 192.168.10.0
 network 192.168.110.0
!
ip classless
!
ip flow-export version 9
!
!
access-list 10 permit 192.168.0.0 0.0.255.255
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
```

Tes koneksi dua arah antara PC3 dengan PC1.
- Dari PC1 ke PC3


```
C:\>ping 192.168.120.3

Pinging 192.168.120.3 with 32 bytes of data:

Reply from 192.168.120.3: bytes=32 time=7ms TTL=126
Reply from 192.168.120.3: bytes=32 time<1ms TTL=126
Reply from 192.168.120.3: bytes=32 time<1ms TTL=126
Reply from 192.168.120.3: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.120.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 7ms, Average = 1ms

C:\>
```

- Dari PC3 ke PC1


```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Reply from 192.168.110.3: bytes=32 time<1ms TTL=126
Reply from 192.168.110.3: bytes=32 time<1ms TTL=126
Reply from 192.168.110.3: bytes=32 time=13ms TTL=126
Reply from 192.168.110.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.110.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 3ms
```

Access List pada 1 host yaitu PC4 dengan alamat IP 192.168.120.4 agar dapat mengakses jaringan 192.168.110.0

```
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 20 permit 192.168.120.4 0.0.0.0
Router(config)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```
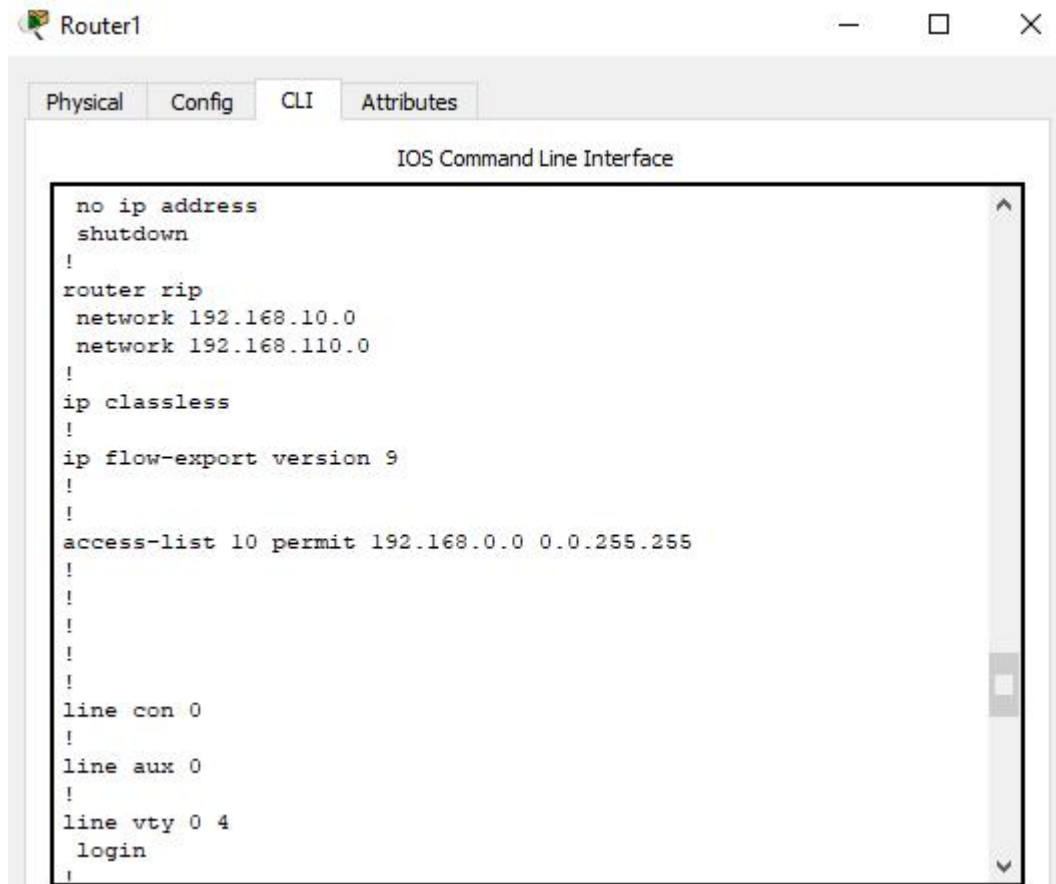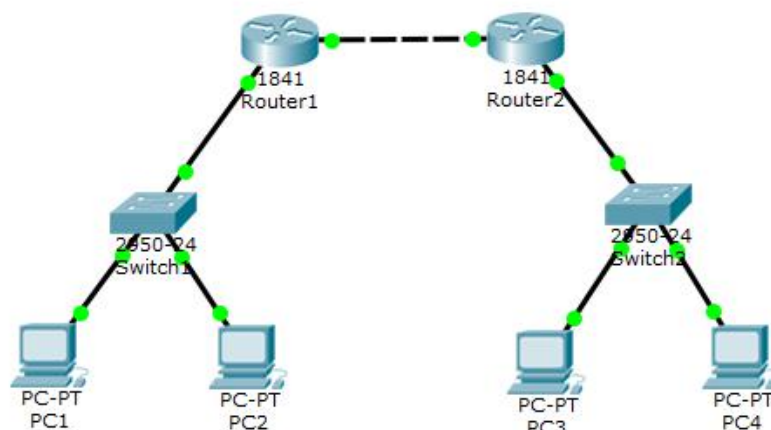
Penerapan Access List ke Interface [Ethernet1] pada Router1.

```
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 0/1
Router(config-if)#ip access-group 20 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Tes koneksi dari PC3 ke PC1 dan PC2.

```
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.

Ping statistics for 192.168.110.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.110.4

Pinging 192.168.110.4 with 32 bytes of data:

Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.

Ping statistics for 192.168.110.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

Tes koneksi dari PC4 ke PC1 dan PC2.

Kegiatan 2. Konfigurasi Extended Access List


```
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 100 permit tcp 192.168.120.0 0.0.0.255 192.168.110.3
% Incomplete command.
Router(config)#access-list 100 permit tcp 192.168.120.0 0.0.0.255 192.168.110.3 0.0.0.0 eq telnet
Router(config)#int fa 0/1
Router(config-if)#ip access-group 100 in
Router(config-if)#exit
Router(config)#
```