

**Ankara University**  
**Department of Computer Engineering**  
**COM332 Data Communication and Networking**  
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**LAB 4.1: Standard ACLs:** Standard Access Control Lists control traffic by comparing source address of the IP packet to the address specified in access control list.

Configure all the interfaces of all the routers on given topology. Configure the hosts on the Ethernet segment.

Create an access list that will prevent access from the 192.168.5.0 network

```
R3(config)#access-list 1 deny 192.168.5.0 0.0.0.255
```

```
R3(config)#access-list 1 permit any
```

Create an access list that will prevent access from the 192.168.3.0 network

```
R2(config)#access-list 1 deny 192.168.3.0 0.0.0.255
```

```
R2(config)#access-list 1 permit any
```

Create an access list that will prevent access from the 192.168.1.0 network

```
R1(config)#access-list 1 deny 192.168.1.0 0.0.0.255
```

```
R1(config)#access-list 1 permit any
```

At the FastEthernet 0/0 interface mode prompt type the following:

```
R3(config-if)#ip access-group 1 in
```

```
R2(config-if)#ip access-group 1 in
```

```
R1(config-if)#ip access-group 1 in
```

Ping the router FastEthernet 0/0 interface or various interfaces on the network to test your access control lists.

**LAB 4.2: Extended ACLs:** Extended Access Control Lists control traffic by comparing source and destination addresses of the IP packet to the addresses specified in access control list.

Configure all the interfaces of all the routers on given topology. Configure the hosts on the Ethernet segment.

Create an access list that will deny ip access for any users on the 192.168.5.0 network if they are trying to access network 192.168.3.0.

```
R2(config)#access-list 100 deny ip 192.168.5.0 0.0.0.255 192.168.3.0 0.0.0.255
```

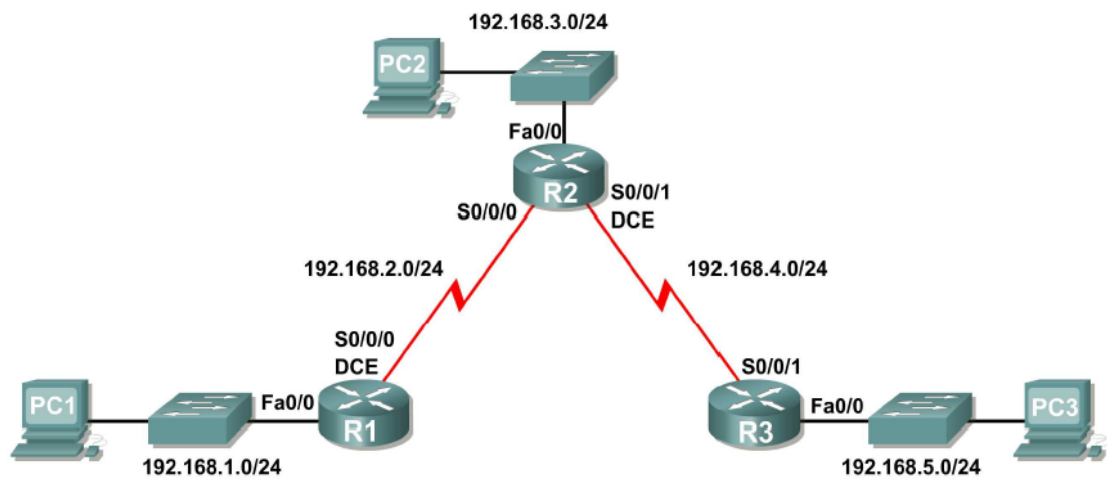
```
R2(config)#access-list 100 permit ip any any
```

At the FastEthernet 0/0 interface mode prompt type the following:

```
R2(config-if)#ip access-group 100 out
```

Ping the router R2 FastEthernet 0/0 interface from 192.165.5.0 and 192.168.1.0 networks to test your access control lists.

Topology Diagram



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	Fa0/0	192.168.1.1	255.255.255.0	N/A
	S0/0/0	192.168.2.1	255.255.255.0	N/A
R2	Fa0/0	192.168.3.1	255.255.255.0	N/A
	S0/0/0	192.168.2.2	255.255.255.0	N/A
R3	Fa0/0	192.168.5.1	255.255.255.0	N/A
	S0/0/1	192.168.4.1	255.255.255.0	N/A
PC1	NIC	192.168.1.10	255.255.255.0	192.168.1.1
PC2	NIC	192.168.3.10	255.255.255.0	192.168.3.1
PC3	NIC	192.168.5.10	255.255.255.0	192.168.5.1