Lab 5

Title: Router Access-list Configuration

Objective:

a) To understand the concept of access-list and IP addresses that can access the network.

Software requirements

SN	Software	Specification
1.	Cisco Packet Tracer	Version above 7.0
2.	Windows OS	Windows 10

Related theory

Access Control Lists (ACLs) act as the gatekeeper of your network. They either permit or deny traffic based on protocol, port number, source, destination, and time range. The range of customization is massive. In this example, you'll learn to use ACLs to block a specific source from accessing a targeted computer via specific ports.

Standard Access-list –
These are the Access-list which are made using the source IP address only. These ACLs permit or deny the entire protocol suite. They don't distinguish between the IP traffic such as TCP, UDP, Https etc. By using numbers 1-99 or 1300-1999, router will understand it as a standard ACL and the specified address as source IP address.

Standard Access-list are less used as compared to extended access-list as the entire IP protocol suite will be allowed or denied for the traffic as it can't distinguish between the different IP protocol traffic.

Procedure

1. Select the router in which you want to implement access-list.
2. Go to CLI.
3. Enable the router.
4. Configure the access-list based on ip address, network address, subnet mask etc.
5. Go to setting.
6. Save the configuration.

Observation:

Standard ACL:

→ deny or permit source ip address

→ applied closest to the destination

Extended ACL:

→ deny or permit source ip address

→ deny or permit destination ip address

→ deny or permit service(port number)

→ applied closest to the source

Router(config)#access-list 1 deny 192.168.2.2 0.0.0.0

<1-99> IP standard access list

<100-199> IP extended access list

After Interfacing to port

Router(config-if)#ip access-group 1 out

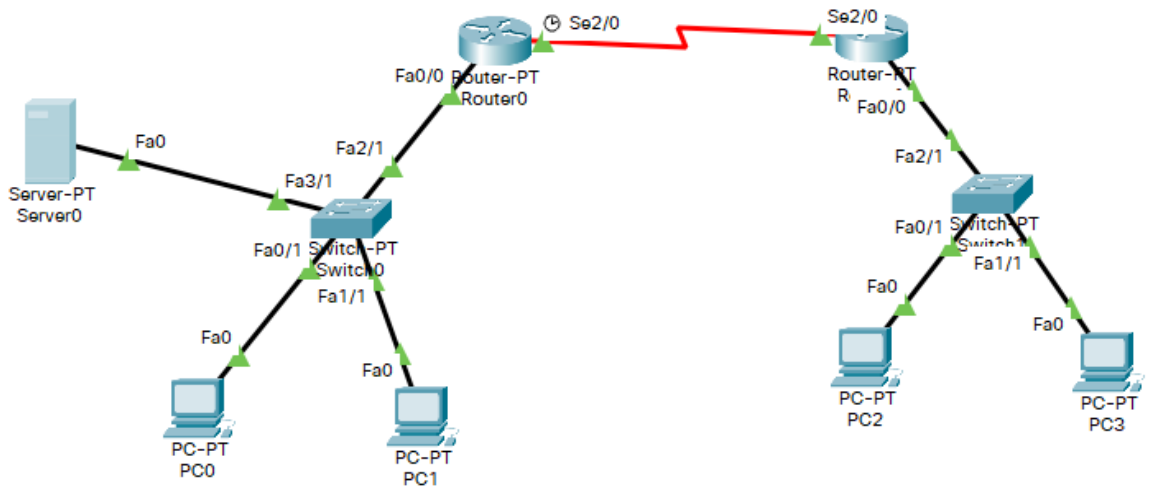
Note:-

access-list 1 deny 192.168.2.2

access-list 1 deny any :- Default

so it rejects all of the other requests too

access-list 1 permit any



Conclusion:

Hence, ACL was achieved in packet tracer