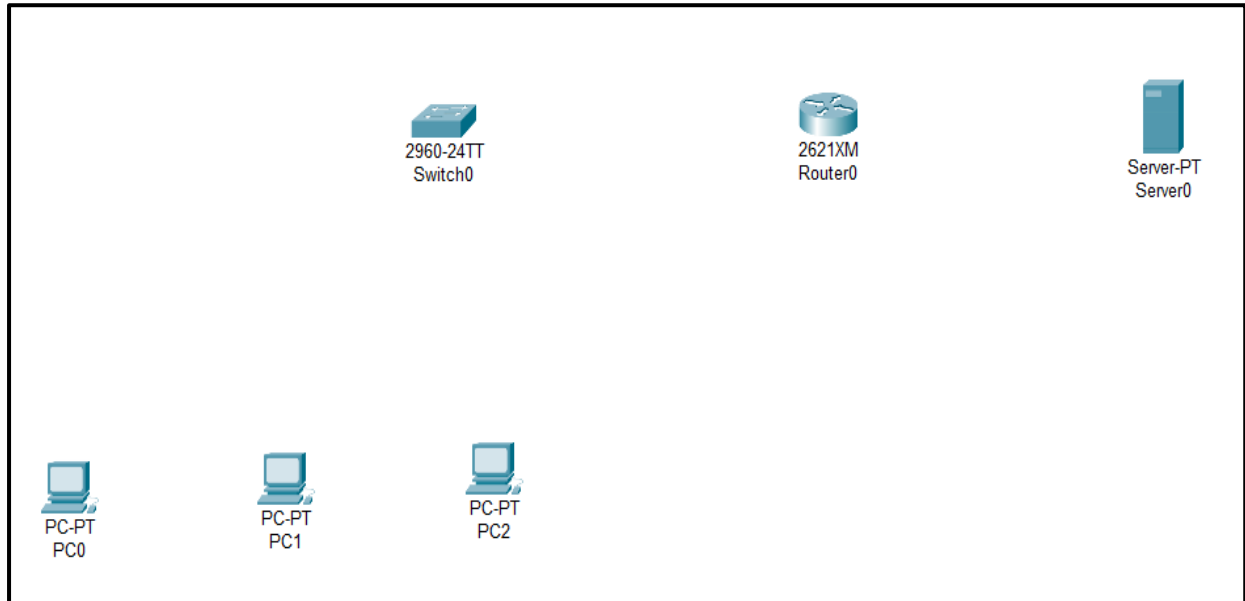


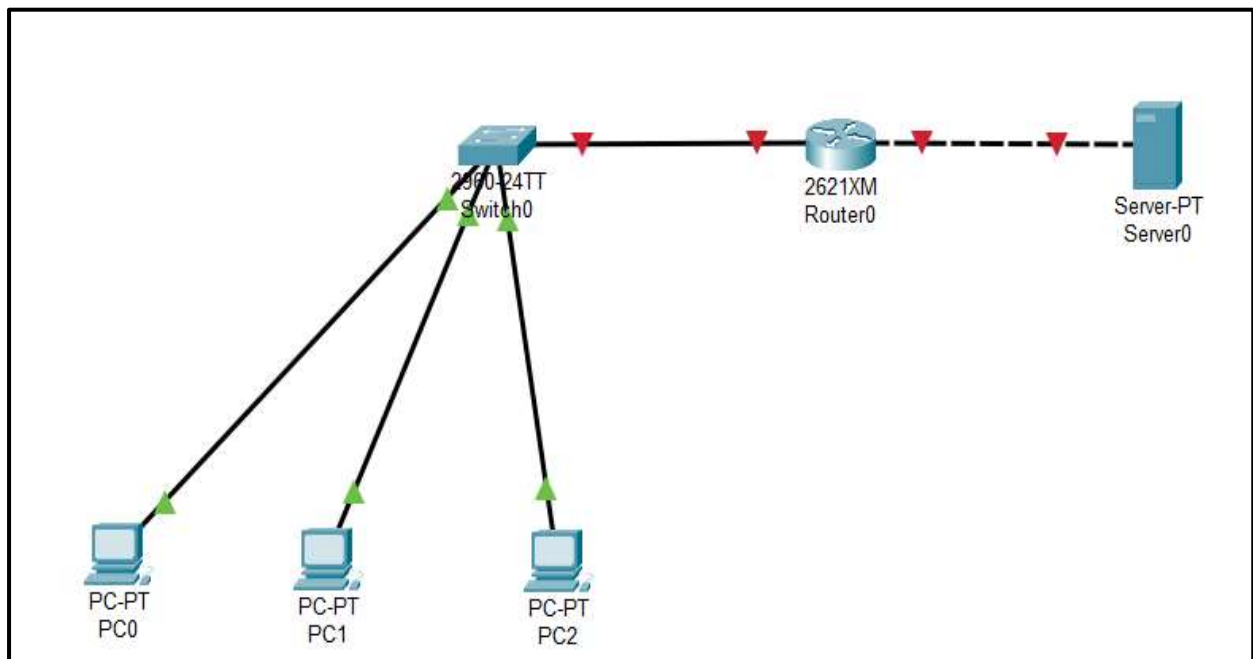
Practical No:

Aim: Placing ACLs

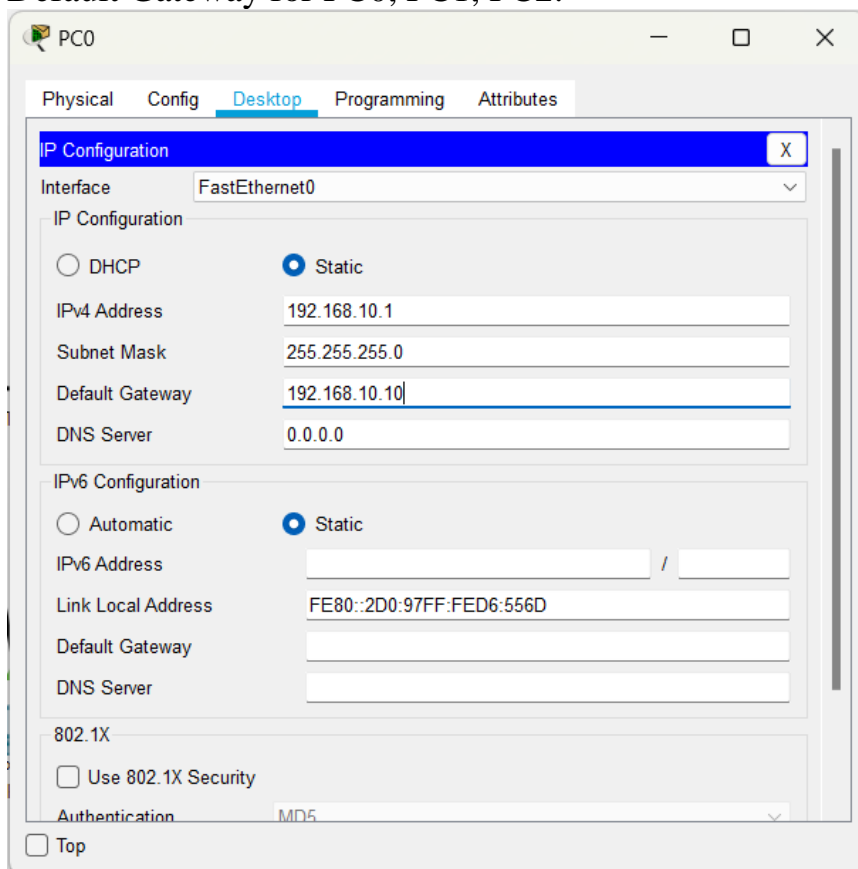
Step 1: Take Components and arrange like this.



Step 2: Connect PC0, PC1, PC2 and Router0 with Switch0 using Copper Straight-Through and Connect Router0 with Server0 using Copper Cross Over.



Step 3: Click on PC > Desktop > IP Configuration > Enter IPv4 Address
Default Gateway for PC0, PC1, PC2.



The screenshot shows the configuration window for PC0. The 'Desktop' tab is selected, and the 'IP Configuration' sub-tab is active. The 'Interface' dropdown is set to 'FastEthernet0'. Under 'IP Configuration', the 'Static' radio button is selected. The IPv4 Address is set to 192.168.10.1, Subnet Mask to 255.255.255.0, and Default Gateway to 192.168.10.10. The DNS Server is set to 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The IPv6 Address field is empty, and the Link Local Address is set to FE80::2D0:97FF:FED6:556D. The '802.1X' section has 'Use 802.1X Security' unchecked and 'Authentication' set to MD5. A 'Top' button is at the bottom left.

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.10.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.10.10

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:97FF:FED6:556D

Default Gateway

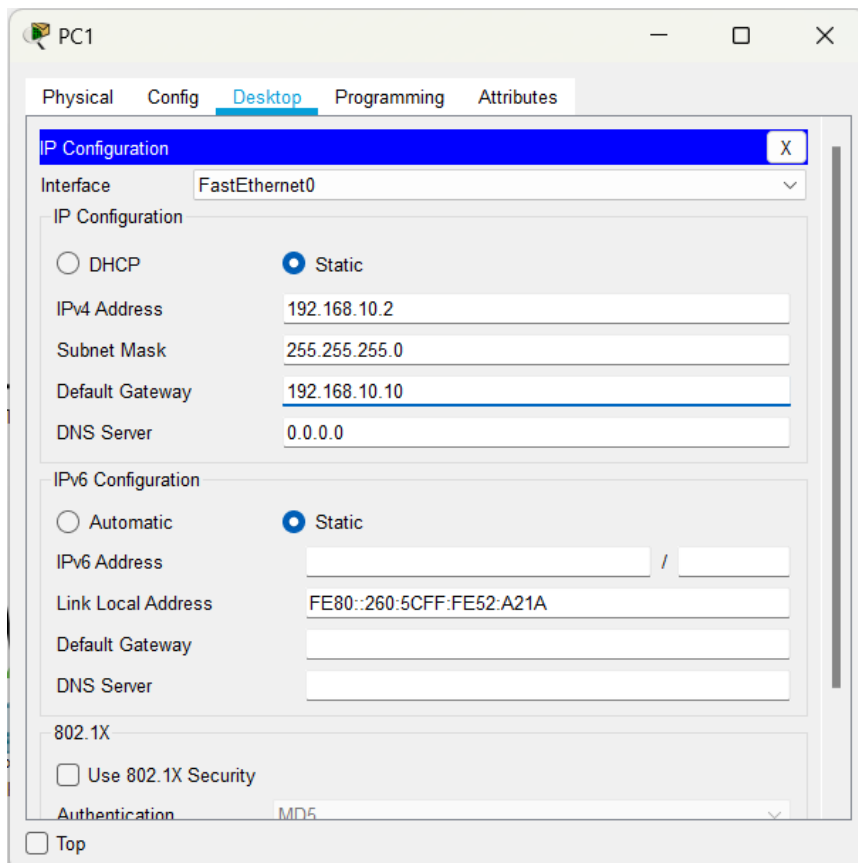
DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

☐ Top



The screenshot shows the configuration window for PC1. The 'Desktop' tab is selected, and the 'IP Configuration' sub-tab is active. The 'Interface' dropdown is set to 'FastEthernet0'. Under 'IP Configuration', the 'Static' radio button is selected. The IPv4 Address is set to 192.168.10.2, Subnet Mask to 255.255.255.0, and Default Gateway to 192.168.10.10. The DNS Server is set to 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The IPv6 Address field is empty, and the Link Local Address is set to FE80::260:5CFF:FE52:A21A. The '802.1X' section has 'Use 802.1X Security' unchecked and 'Authentication' set to MD5. A 'Top' button is at the bottom left.

PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.10.2

Subnet Mask 255.255.255.0

Default Gateway 192.168.10.10

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::260:5CFF:FE52:A21A

Default Gateway

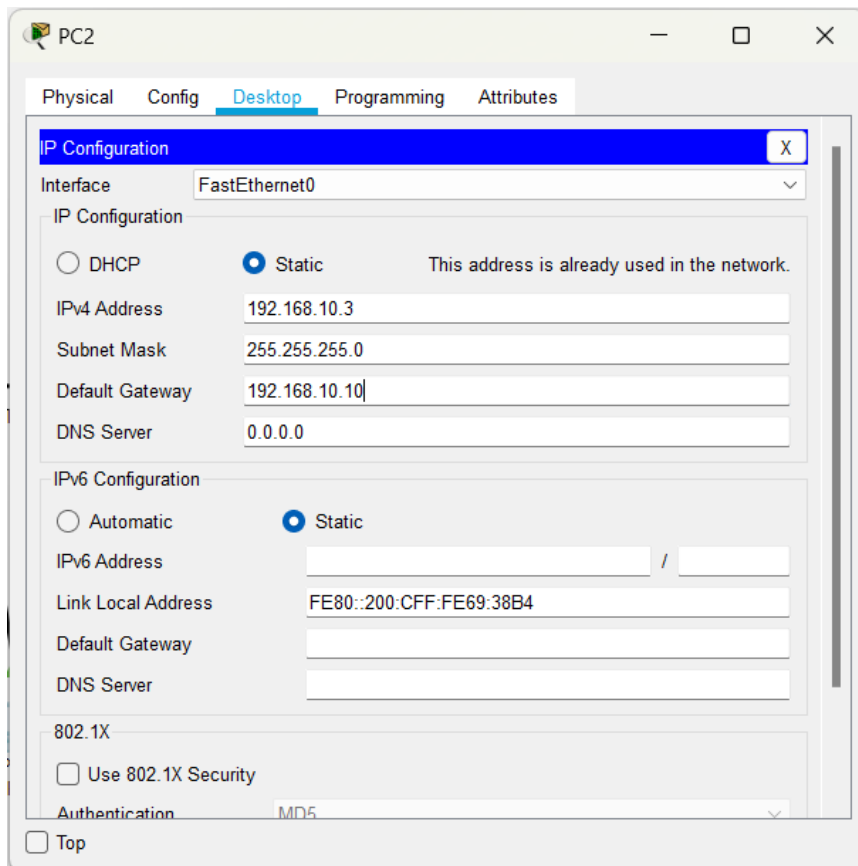
DNS Server

802.1X

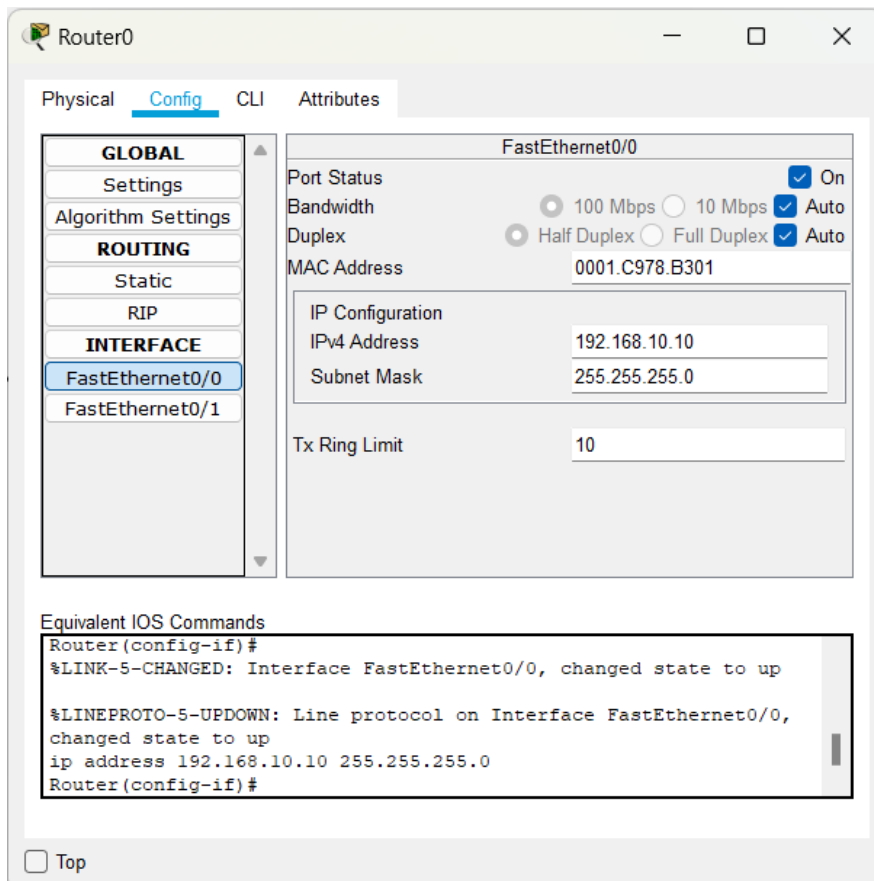
☐ Use 802.1X Security

Authentication MD5

☐ Top



Step 4: Click on Router0 > Config > FastEthernet0/0 > Make Changes as below



Step 5: Click on Router0 > Config > FastEthernet0/1 > Make Changes as below

The screenshot shows the configuration window for Router0. The 'Config' tab is selected, and the 'FastEthernet0/1' interface is chosen from the left sidebar. The main configuration area shows the following settings:

- Port Status:** ☒ On
- Bandwidth:** ☐ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex:** ☐ Half Duplex ☐ Full Duplex ☒ Auto
- MAC Address:** 0001.C978.B302
- IP Configuration:**
 - IPv4 Address:** 10.10.10.10
 - Subnet Mask:** 255.0.0.0
- Tx Ring Limit:** 10

Below the configuration fields, the 'Equivalent IOS Commands' section displays the following commands:

```
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up
ip address 10.10.10.10 255.0.0.0
Router(config-if)#ip address 10.10.10.10 255.0.0.0
Router(config-if)#
```

A 'Top' button is located at the bottom left of the window.

Step 6: Click on Server0 > Config > FastEthernet0/1 > Make Changes as below

The screenshot shows the configuration window for Server0. The 'Desktop' tab is selected, and the 'IP Configuration' window is open. The 'Static' radio button is selected for both IPv4 and IPv6 configurations.

IPv4 Configuration:

- Static:** ☒ DHCP ☐
- IPv4 Address:** 10.10.10.11
- Subnet Mask:** 255.0.0.0
- Default Gateway:** 10.10.10.10
- DNS Server:** 0.0.0.0

IPv6 Configuration:

- Static:** ☒ Automatic ☐
- IPv6 Address:** [Empty field] / [Empty field]
- Link Local Address:** FE80::20A:F3FF:FEB2:81E5
- Default Gateway:** [Empty field]
- DNS Server:** [Empty field]

802.1X:

- Use 802.1X Security:** ☐
- Authentication:** MD5

A 'Top' button is located at the bottom left of the window.

Step 7: Click on Router0 > CLI > Enter below commands.

```
Router(config-if)#exit
```

```
Router(config)#ip access-list ?
```

extended Extended Access List

standard Standard Access List

```
Router(config)#ip access-list standard ?
```

<1-99> Standard IP access-list number

WORD Access-list name

```
Router(config)#ip access-list standard 11 ?
```

<cr>

```
Router(config)#ip access-list standard 11
```

```
Router(config-std-nacl)#?
```

<1-2147483647> Sequence Number

default Set a command to its defaults

deny Specify packets to reject

exit Exit from access-list configuration mode

no Negate a command or set its defaults

permit Specify packets to forward

remark Access list entry comment

```
Router(config-std-nacl)#deny ?
```

A.B.C.D Address to match

any Any source host

host A single host address

```
Router(config-std-nacl)#deny host ?
```

A.B.C.D Host address

```
Router(config-std-nacl)#deny host 192.168.10.2 ?
```

<cr>

```
Router(config-std-nacl)#deny host 192.168.10.2
```

```
Router(config-std-nacl)#permit ?
```

A.B.C.D Address to match

any Any source host

host A single host address

```
Router(config-std-nacl)#permit any ?
```

<cr>

```
Router(config-std-nacl)#permit any
```

```
Router(config-std-nacl)#exit
```

```
Router(config)#interface fastethernet 0/0
```

```
Router(config-if)#ip access-group ?
```

<1-199> IP access list (standard or extended)

WORD Access-list name

```
Router(config-if)#ip access-group 11 ?
```

in inbound packets

out outbound packets

```
Router(config-if)#ip access-group 11 in
```

```
Router(config-if)#exit
```

```
Router(config)#exit
```

```
Router#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

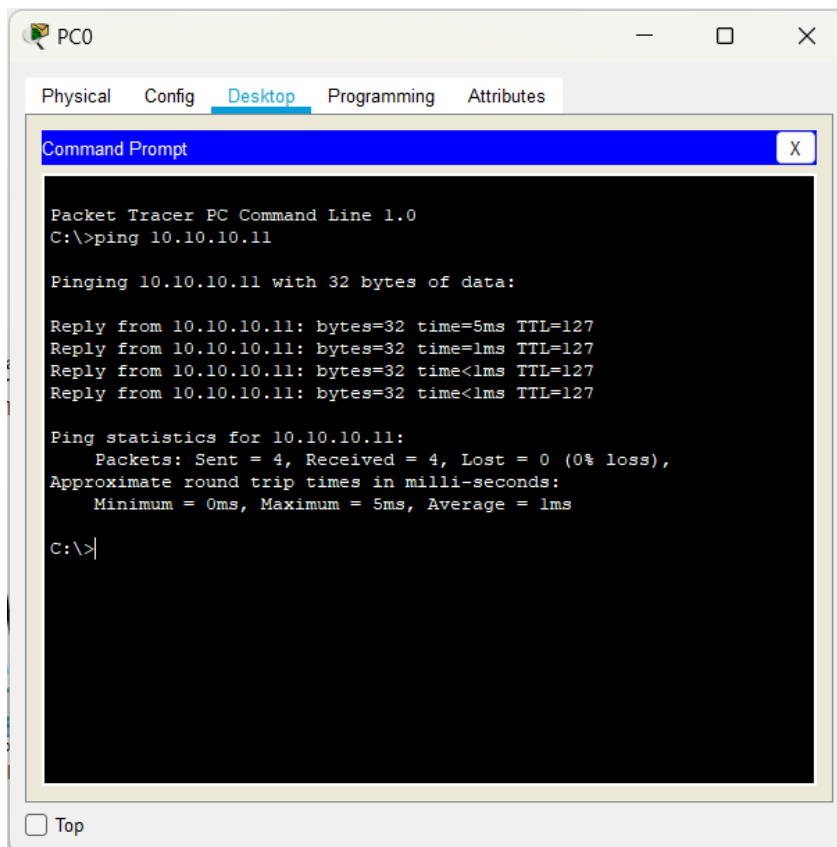
```
Router#show access-lists
```

```
Standard IP access list 11
```

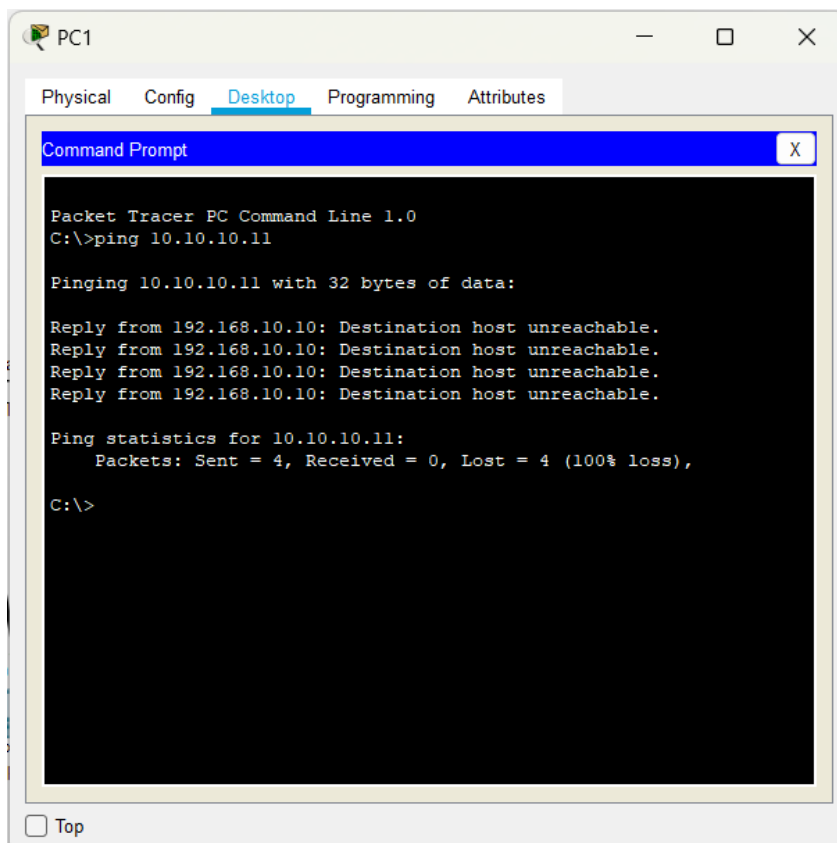
```
10 deny host 192.168.10.2
```

```
20 permit any
```

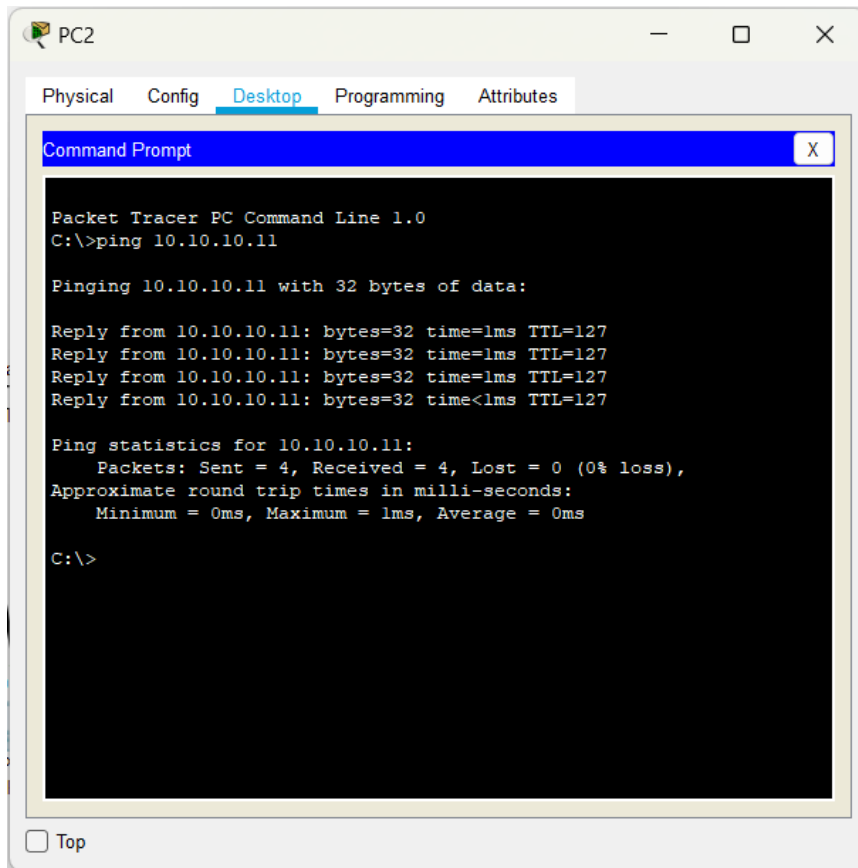
Step 8: Click on PC1 > Desktop > Command Prompt > Enter below command



Step 8: Click on PC1 > Desktop > Command Prompt > Enter below command



Step 9: Click on PC2 > Desktop > Command Prompt > Enter below command



Step 10: Click on Router0 > CLI > Enter below commands.

