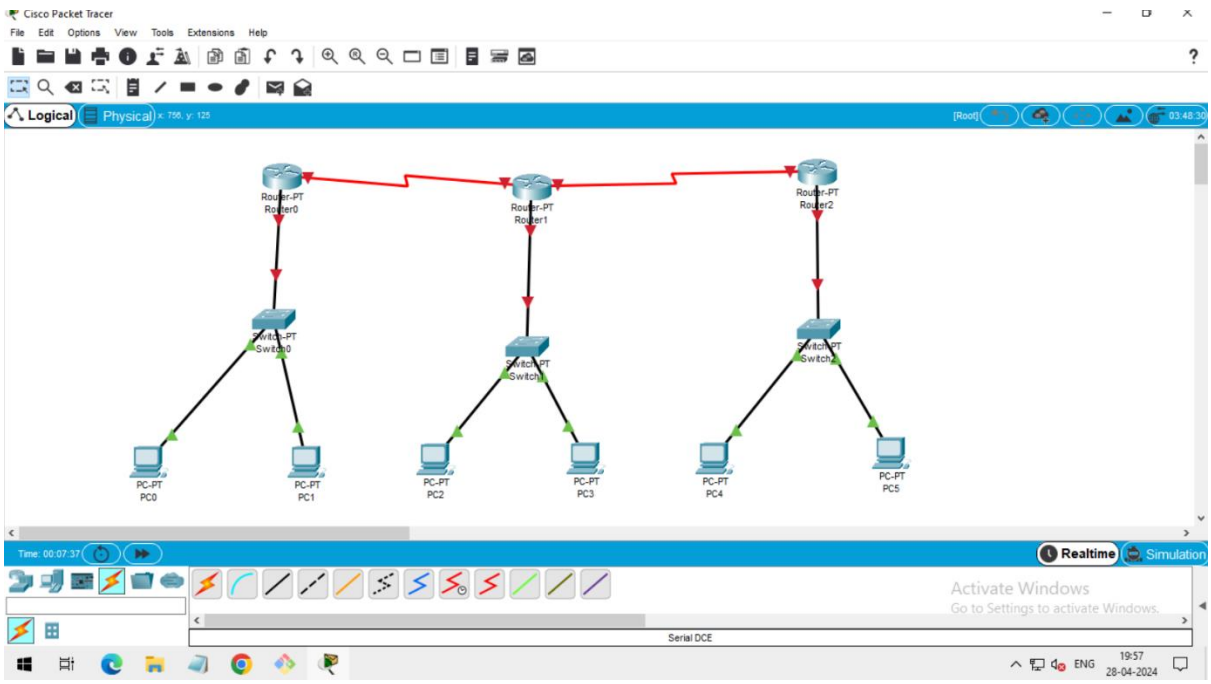
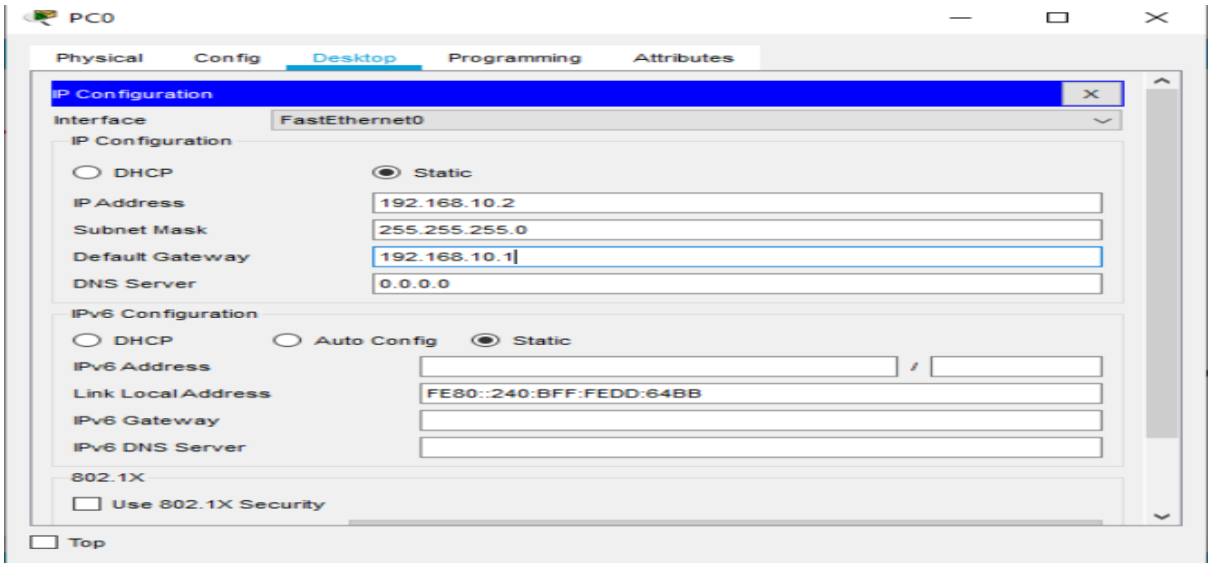
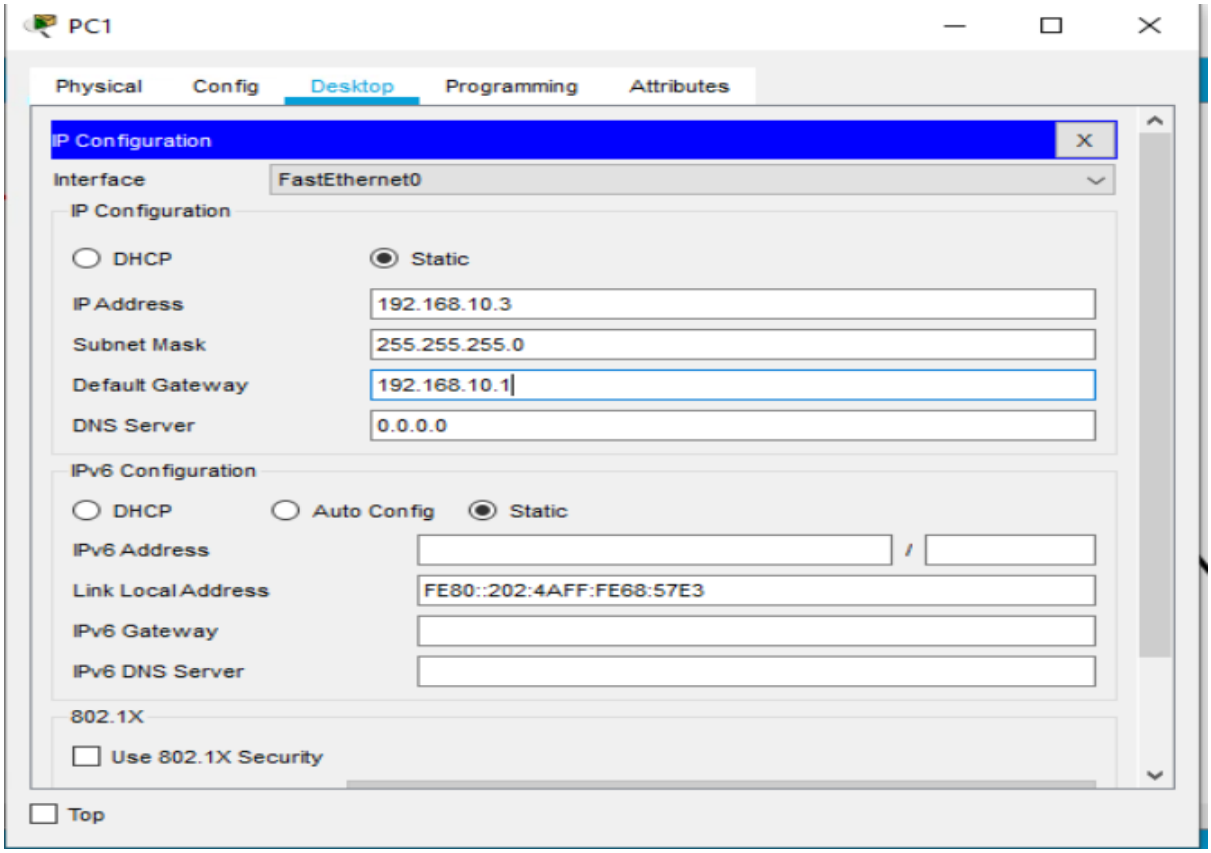
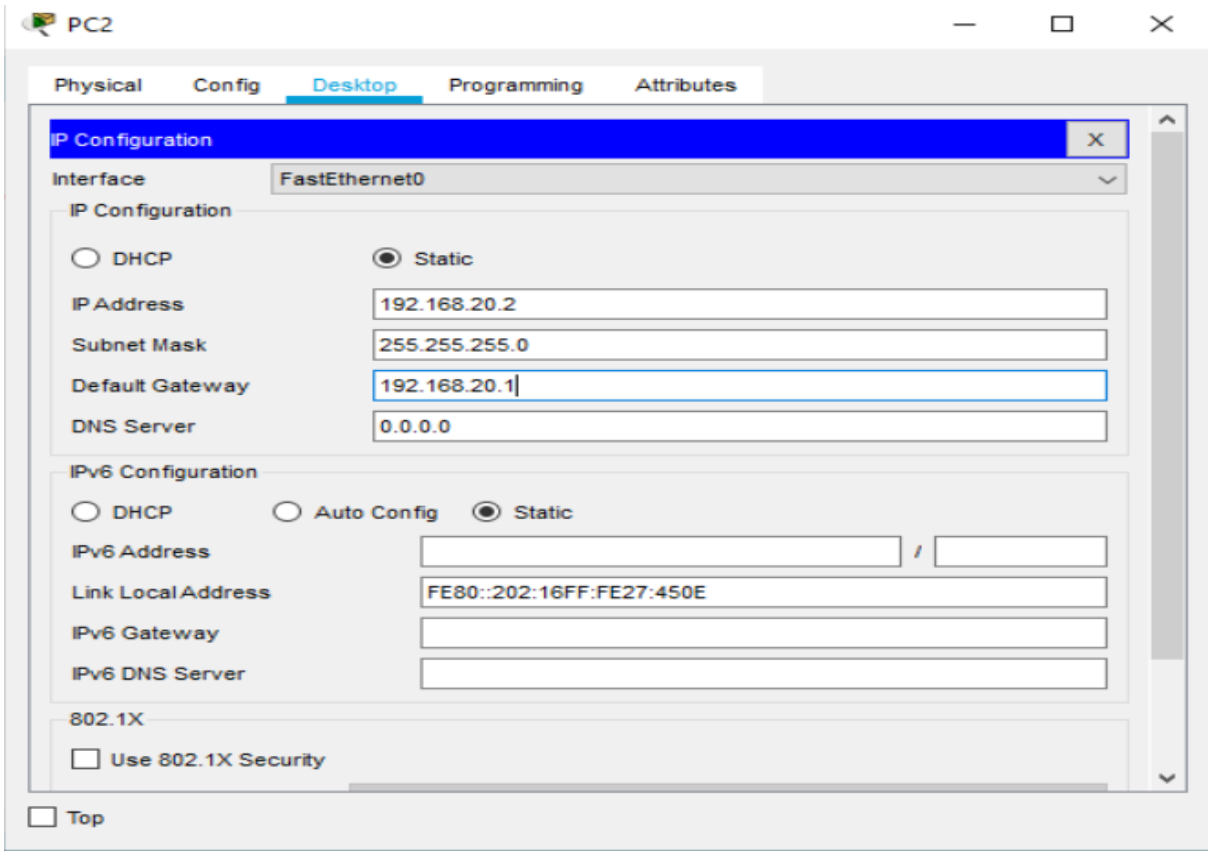
Cisco Packet Tracer lab :-4 (Three router of different network are pingable to each other & each network contain 1 router,1 switch and 2pc)

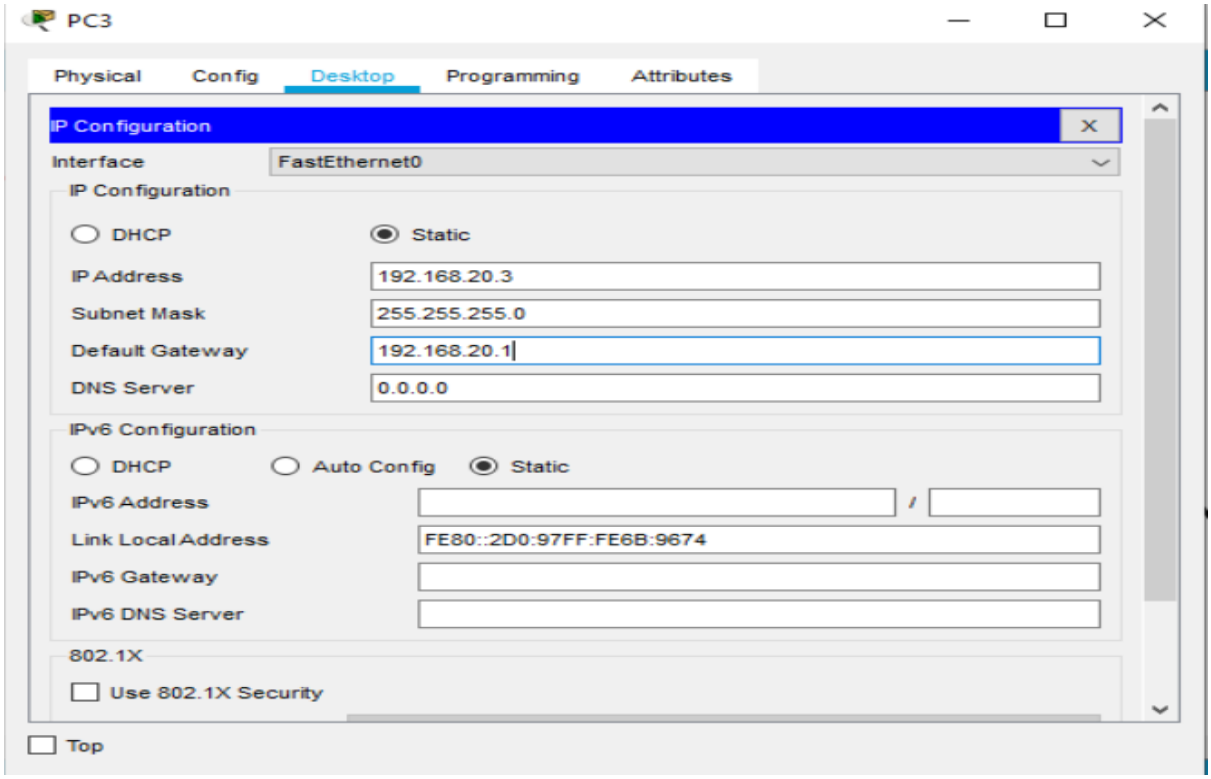
1. First draw diagram in cisco packet tracer.
2. Then give ip address & gateway value to each pc.
3. Then give command to each router in CLI for convert red light to green .
4. Then give path to router in which those router are direct connect or indirect connect & give address to each router for connecting via different network.
5. Then I ping pc0 to pc3 & pc5 .Like this I ping every pc .

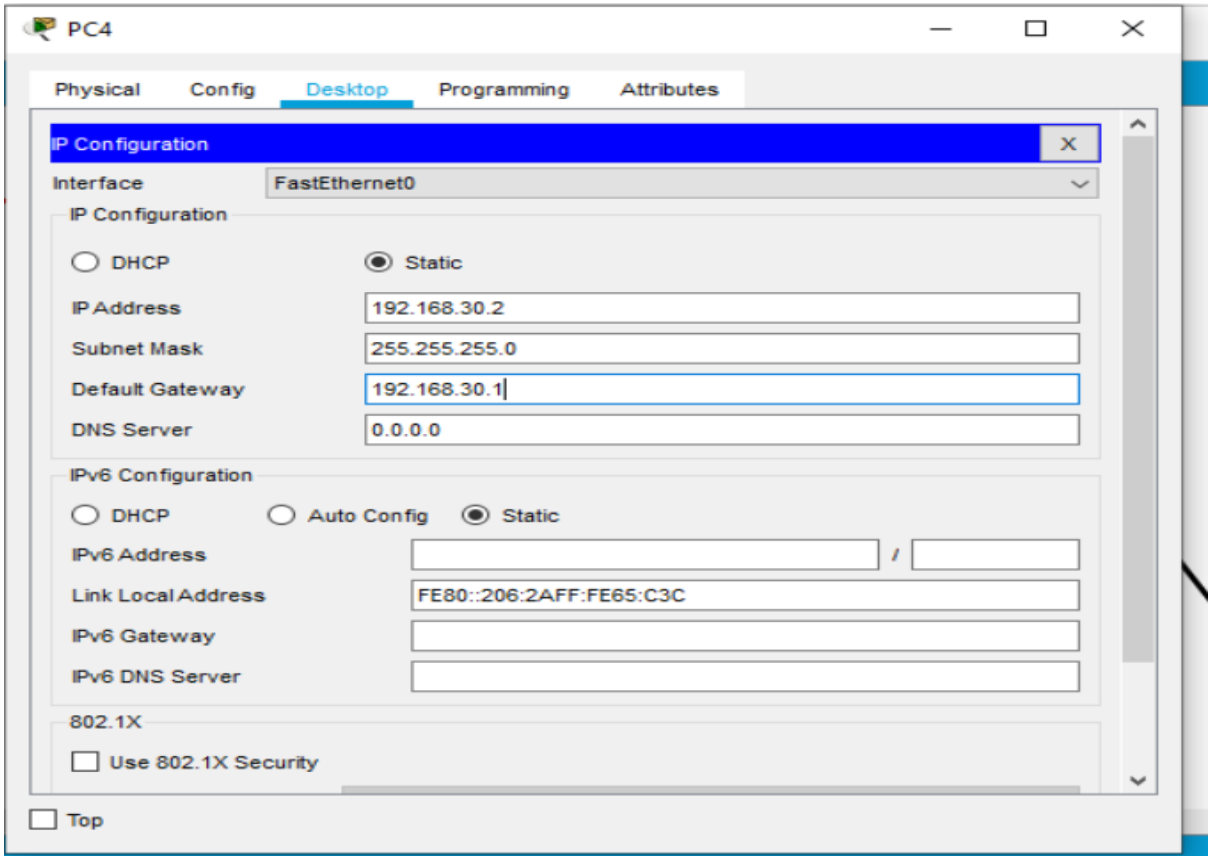


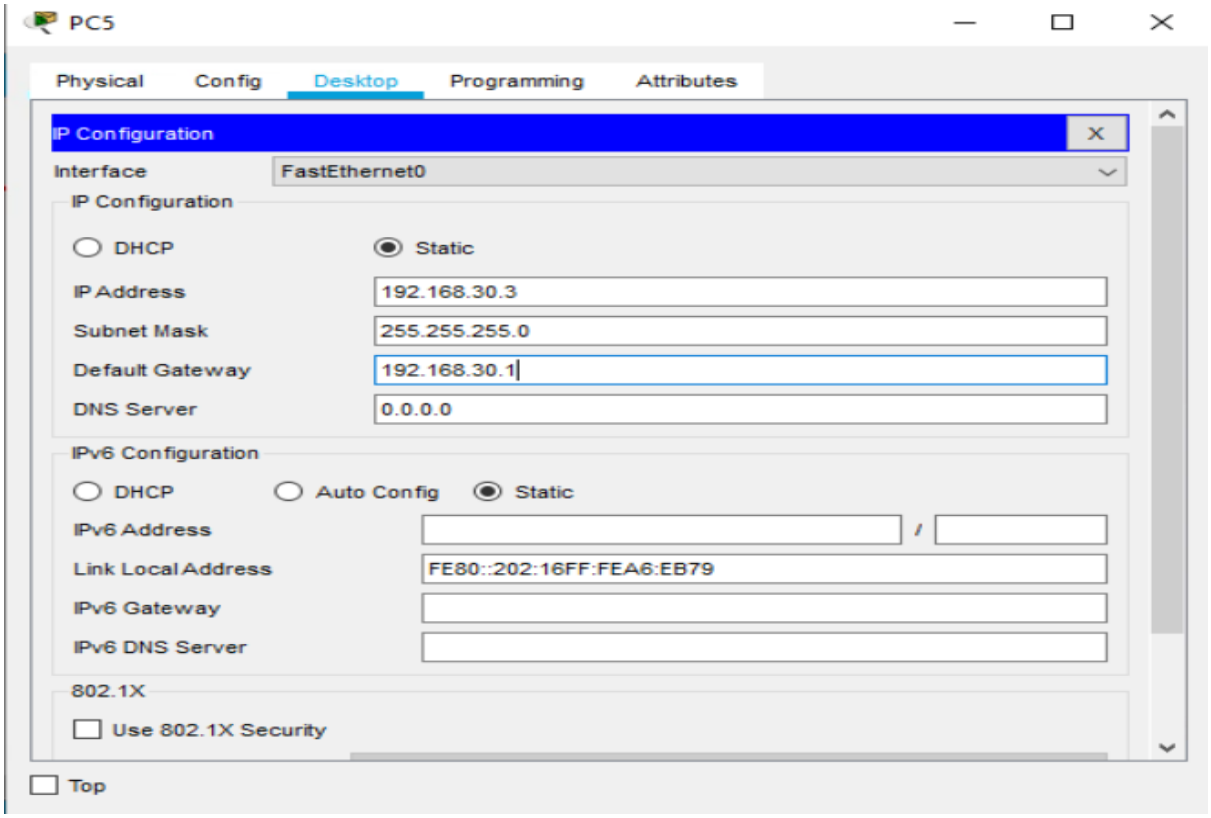


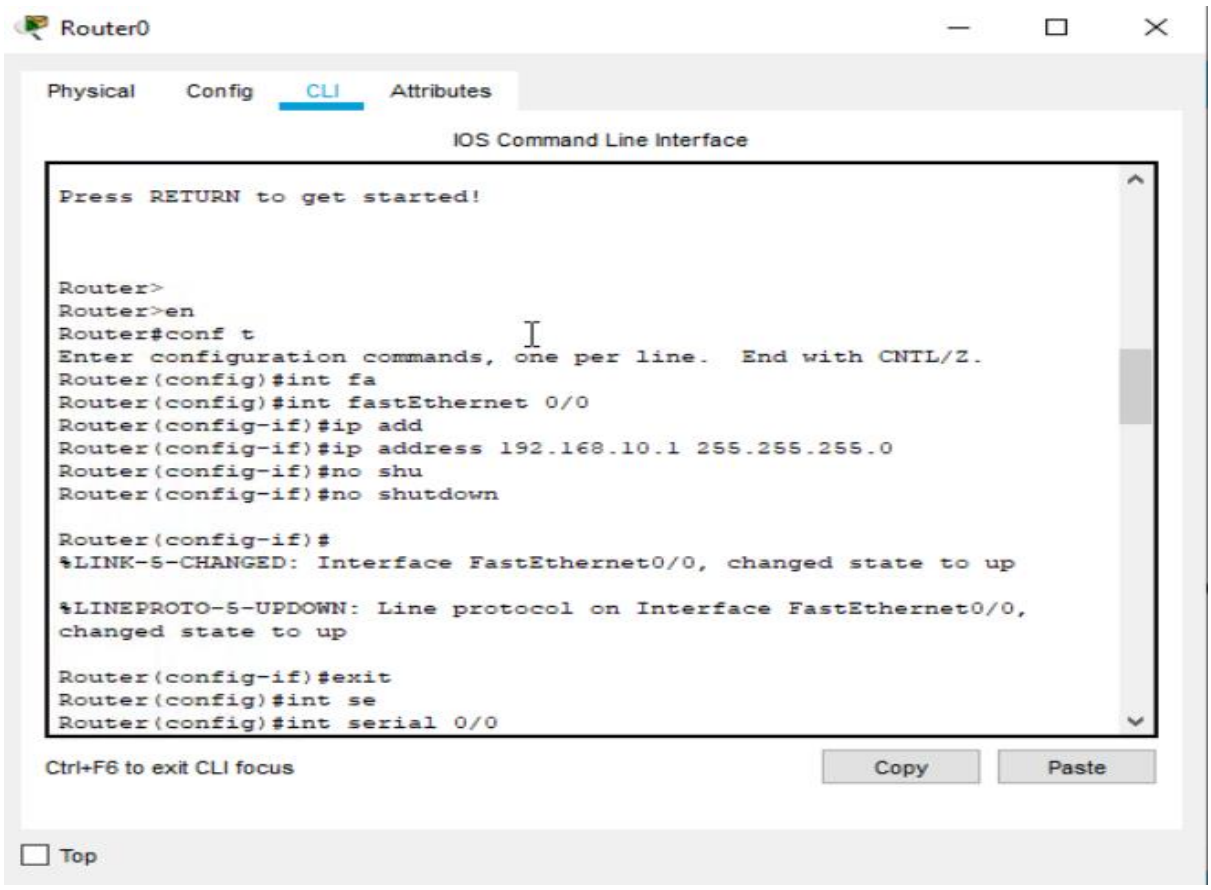

PC1
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.10.3
Subnet Mask
255.255.255.0
Default Gateway
192.168.10.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::202:4AFF:FE68:57E3
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

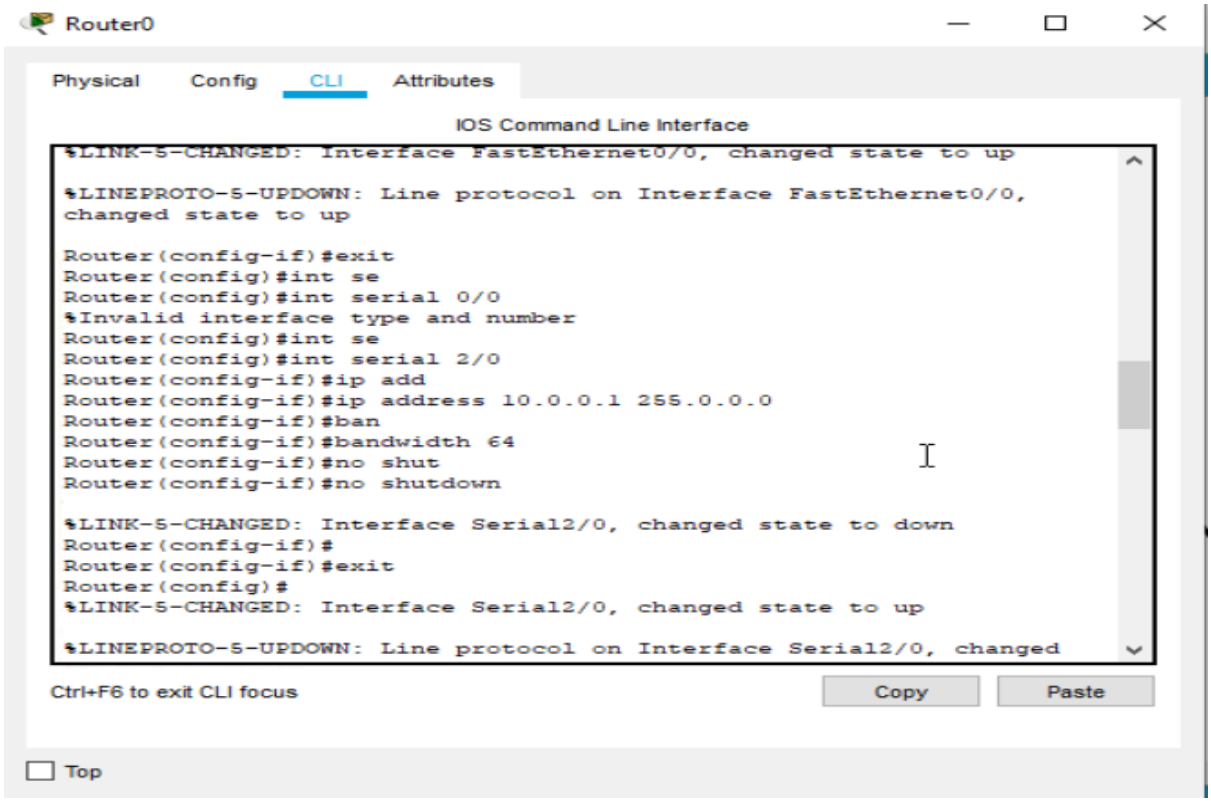

PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.20.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.20.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::202:16FF:FE27:450E
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

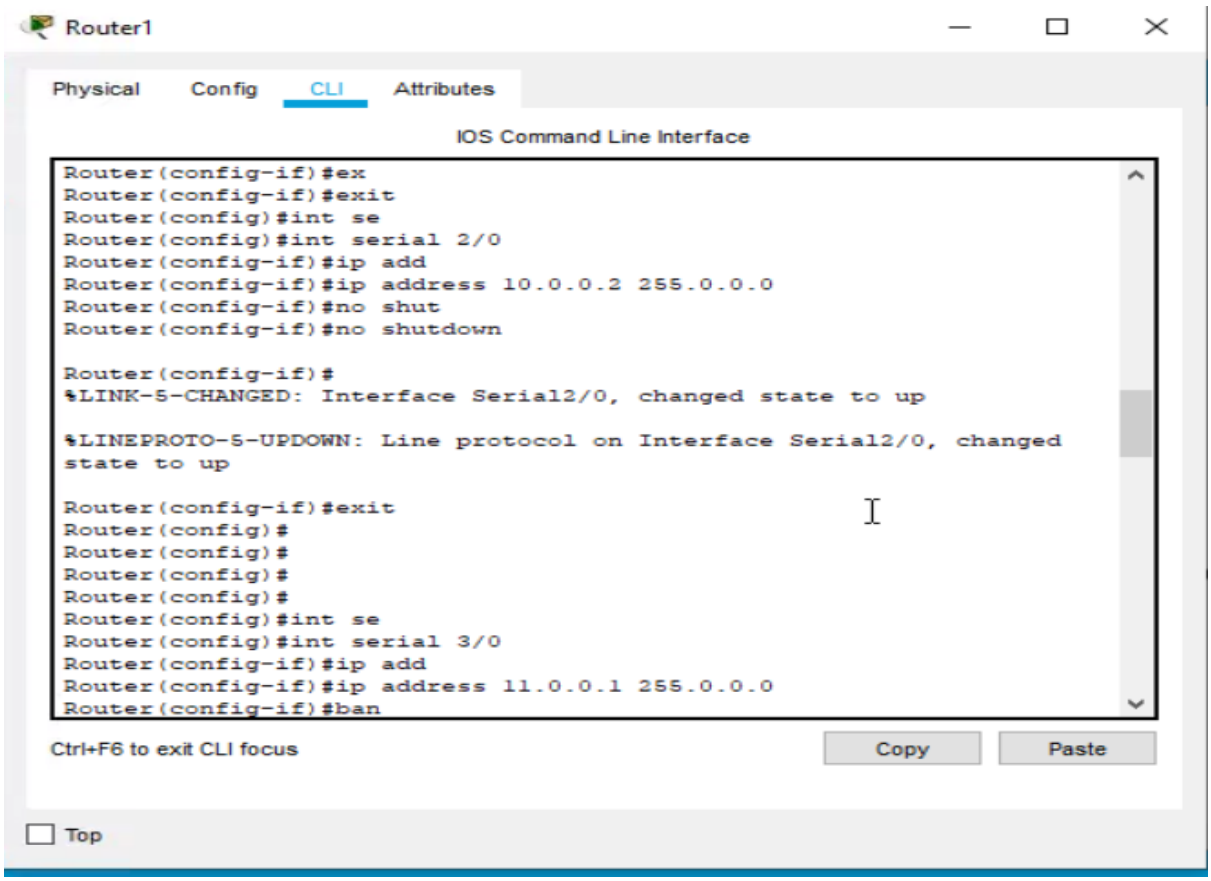

PC3
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.20.3
Subnet Mask
255.255.255.0
Default Gateway
192.168.20.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::2D0:97FF:FE6B:9674
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

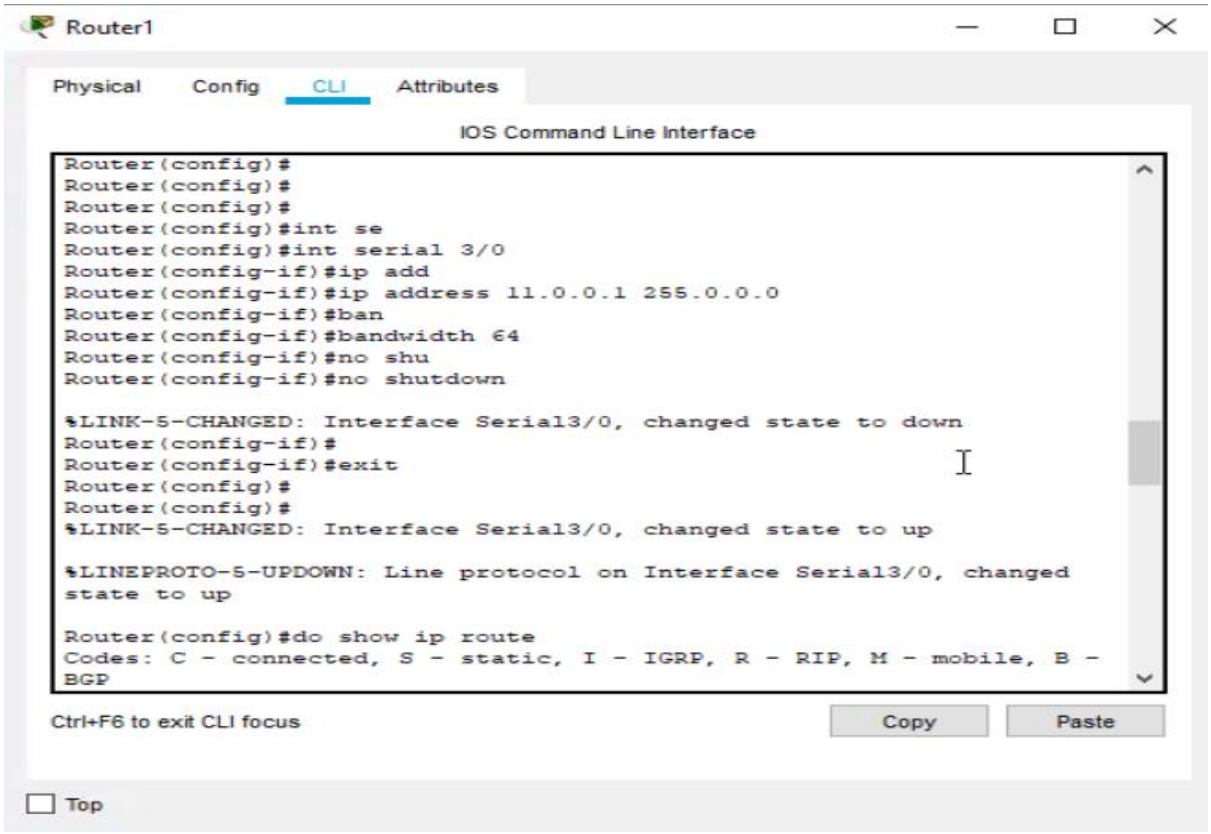

PC4
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.30.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.30.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::206:2AFF:FE65:C3C
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

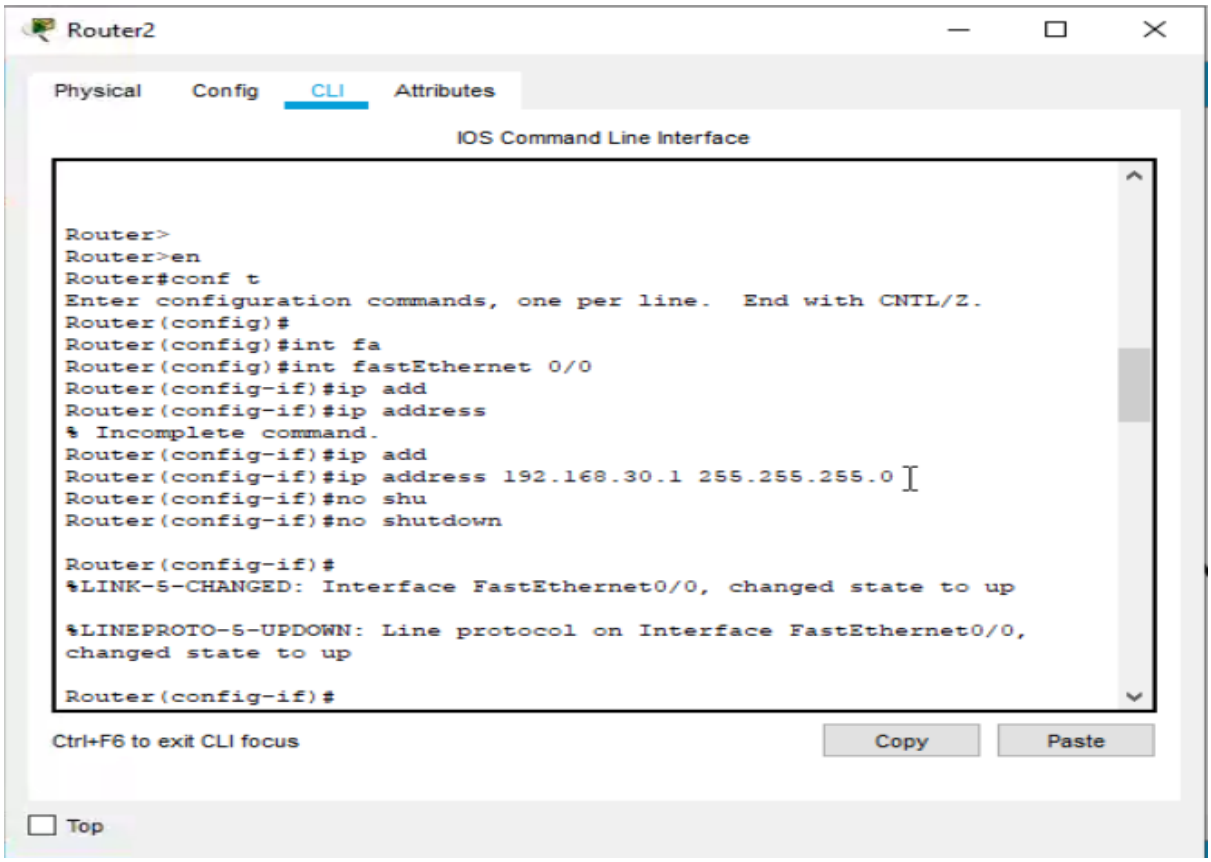

PC5
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.30.3
Subnet Mask
255.255.255.0
Default Gateway
192.168.30.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::202:16FF:FEA6:EB79
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Press RETURN to get started!
Router>
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa
Router(config)#int fastEthernet 0/0
Router(config-if)#ip add
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shu
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up
Router(config-if)#exit
Router(config)#int se
Router(config)#int serial 0/0
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#int se
Router(config)#int serial 0/0
%Invalid interface type and number
Router(config)#int se
Router(config)#int serial 2/0
Router(config-if)#ip add
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#ban
Router(config-if)#bandwidth 64
Router(config-if)#no shut
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#
Router(config-if)#exit
Router(config)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config-if)#ex
Router(config-if)#exit
Router(config)#int se
Router(config)#int serial 2/0
Router(config-if)#ip add
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shut
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#
Router(config)#int se
Router(config)#int serial 3/0
Router(config-if)#ip add
Router(config-if)#ip address 11.0.0.1 255.0.0.0
Router(config-if)#ban
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config)#
Router(config)#
Router(config)#
Router(config)#int se
Router(config)#int serial 3/0
Router(config-if)#ip add
Router(config-if)#ip address 11.0.0.1 255.0.0.0
Router(config-if)#ban
Router(config-if)#bandwidth 64
Router(config-if)#no shu
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up
Router(config)#do show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router>
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#int fa
Router(config)#int fastEthernet 0/0
Router(config-if)#ip add
Router(config-if)#ip address
% Incomplete command.
Router(config-if)#ip add
Router(config-if)#ip address 192.168.30.1 255.255.255.0
Router(config-if)#no shu
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Router2

Physical | Config | CLI | Attributes

IOS Command Line Interface

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up

Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#int se
Router(config)#int serial 3/0
Router(config-if)#ip add
Router(config-if)#ip address 11.0.0.2 255.0.0.0
Router(config-if)#no shu
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

Router(config-if)#exit
Router(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed
state to up
```

Ctrl+F6 to exit CLI focus

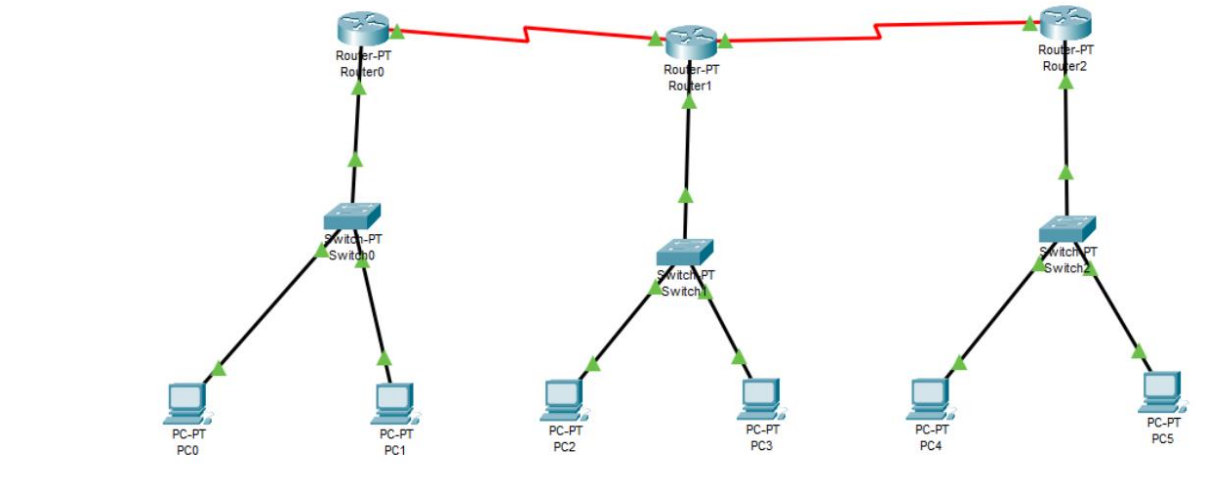
Copy | Paste

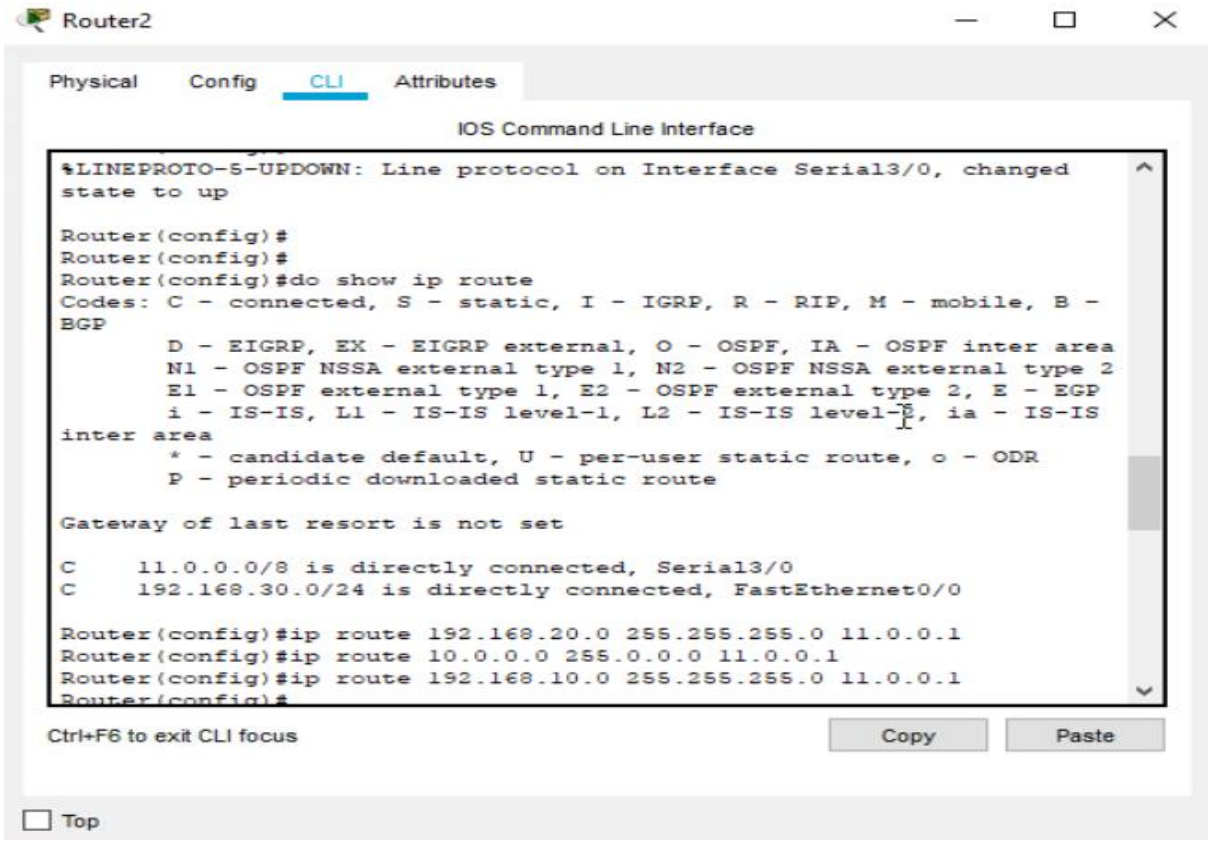
Top

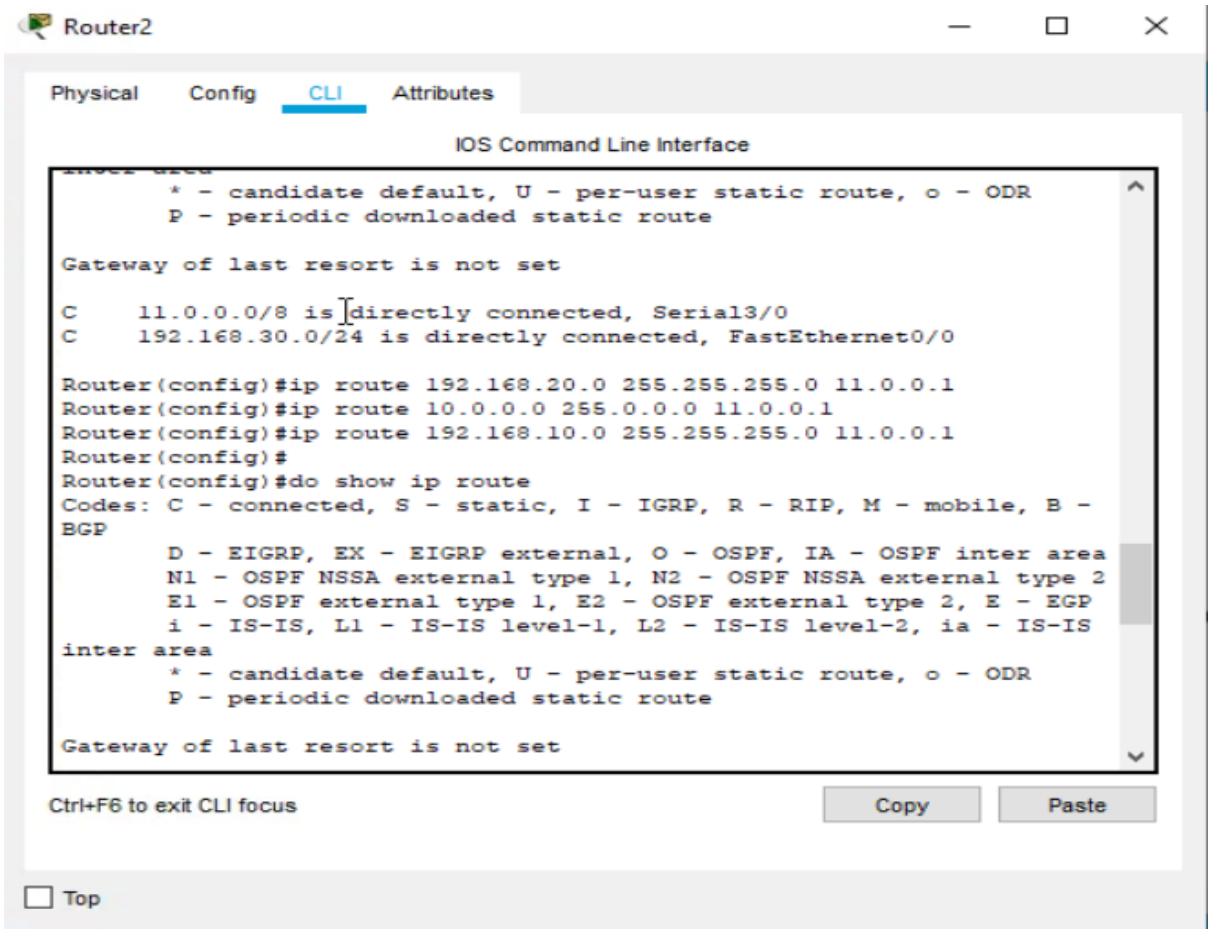
Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical | Physical x: 802, y: 172




Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up
Router(config)#
Router(config)#
Router(config)#do 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 11.0.0.0/8 is directly connected, Serial3/0
C 192.168.30.0/24 is directly connected, FastEthernet0/0
Router(config)#ip route 192.168.20.0 255.255.255.0 11.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1
Router(config)#ip route 192.168.10.0 255.255.255.0 11.0.0.1
Router(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set
C 11.0.0.0/8 is directly connected, Serial3/0
C 192.168.30.0/24 is directly connected, FastEthernet0/0
Router(config)#ip route 192.168.20.0 255.255.255.0 11.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1
Router(config)#ip route 192.168.10.0 255.255.255.0 11.0.0.1
Router(config)#
Router(config)#do 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
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
       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

S     10.0.0.0/8 [1/0] via 11.0.0.1
C     11.0.0.0/8 is directly connected, Serial3/0
S     192.168.10.0/24 [1/0] via 11.0.0.1
S     192.168.20.0/24 [1/0] via 11.0.0.1
C     192.168.30.0/24 is directly connected, FastEthernet0/0

Router(config)#



Router con0 is now available
```

Ctrl+F6 to exit CLI focus Copy Paste

Top

Router1

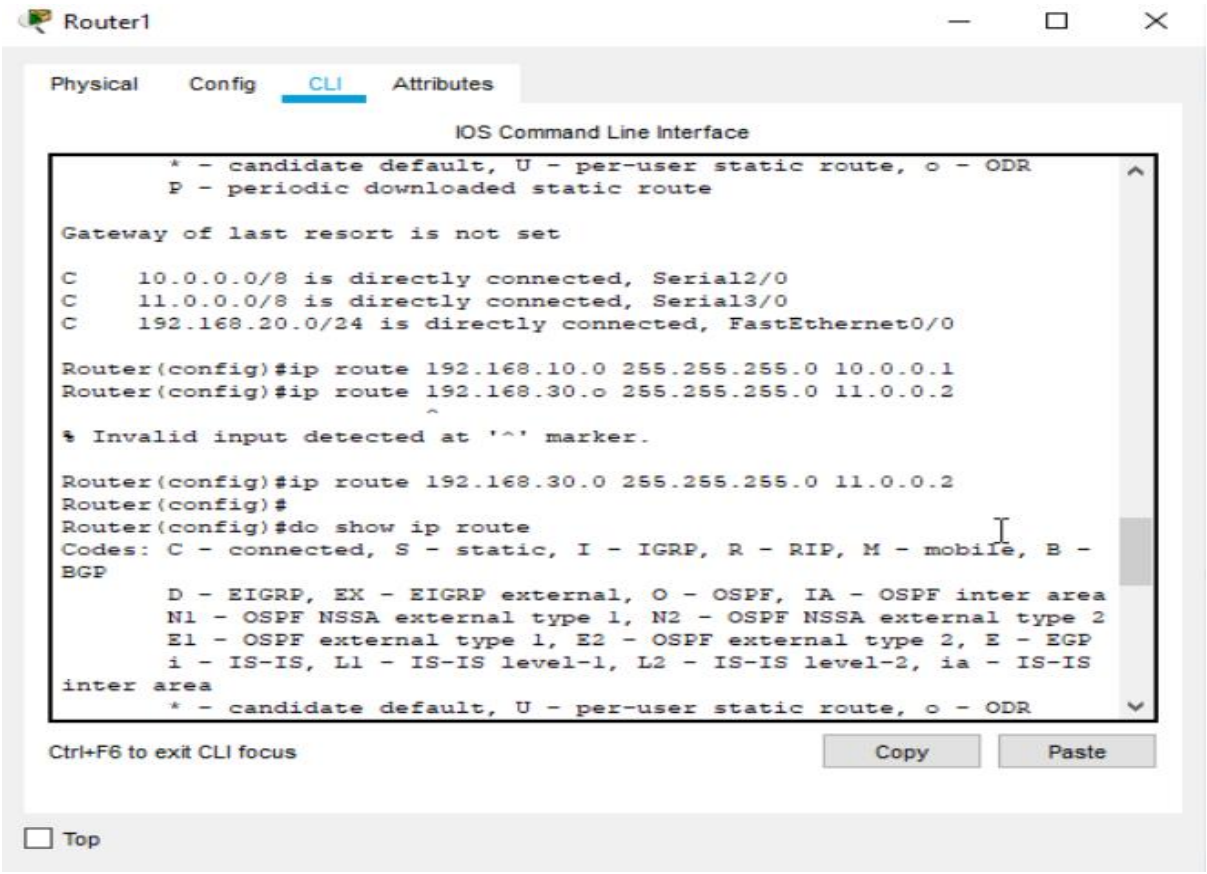
Physical Config CLI Attributes

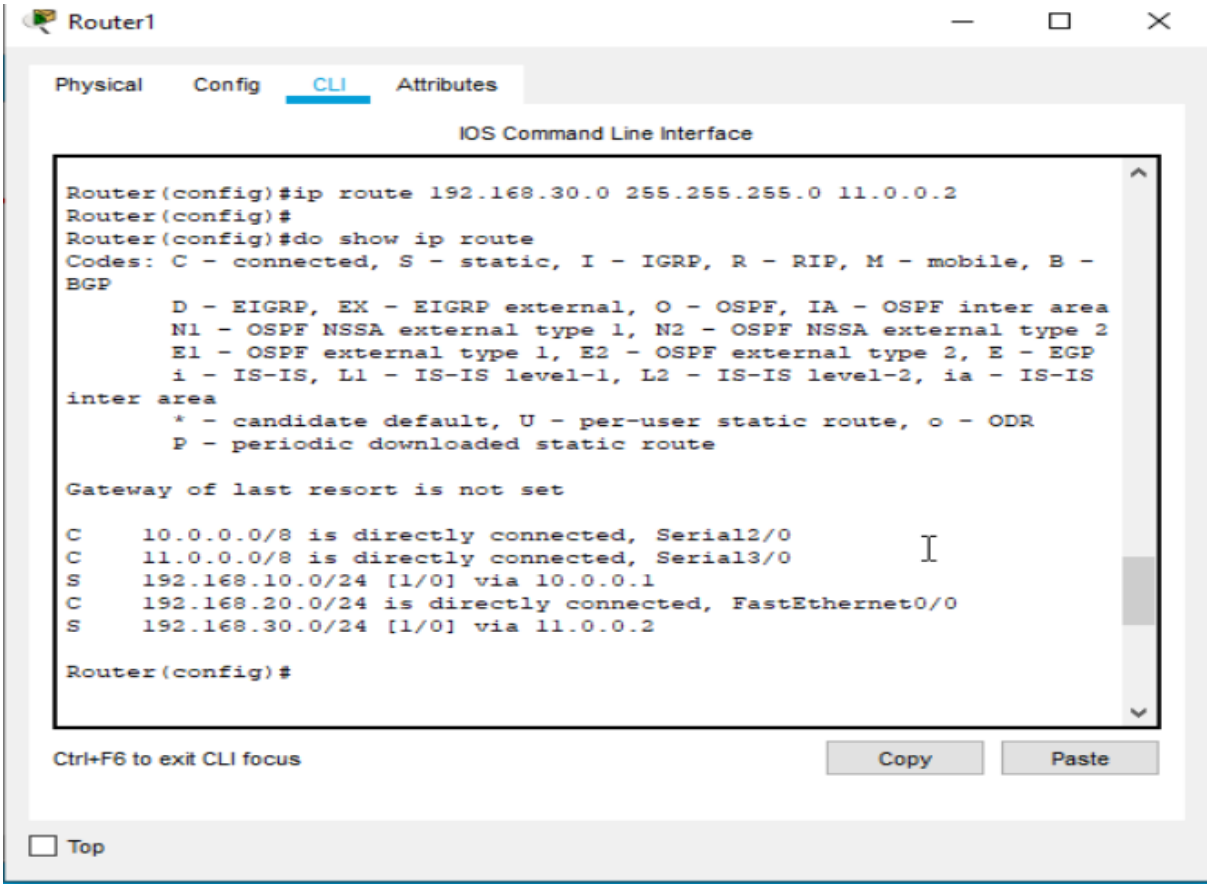
IOS Command Line Interface

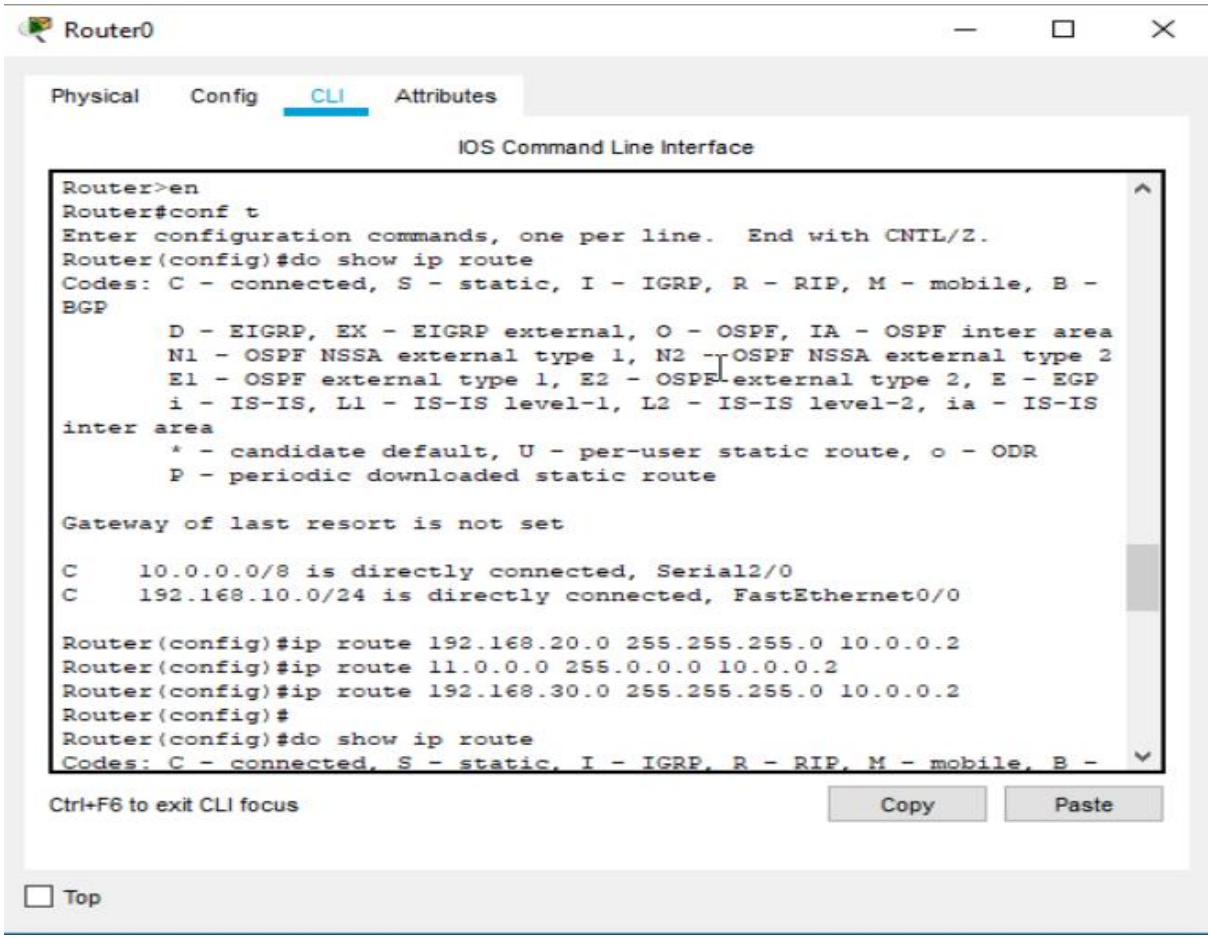
```
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed
state to up

Router(config)#do 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     10.0.0.0/8 is directly connected, Serial2/0
C     11.0.0.0/8 is directly connected, Serial3/0
C     192.168.20.0/24 is directly connected, FastEthernet0/0
```

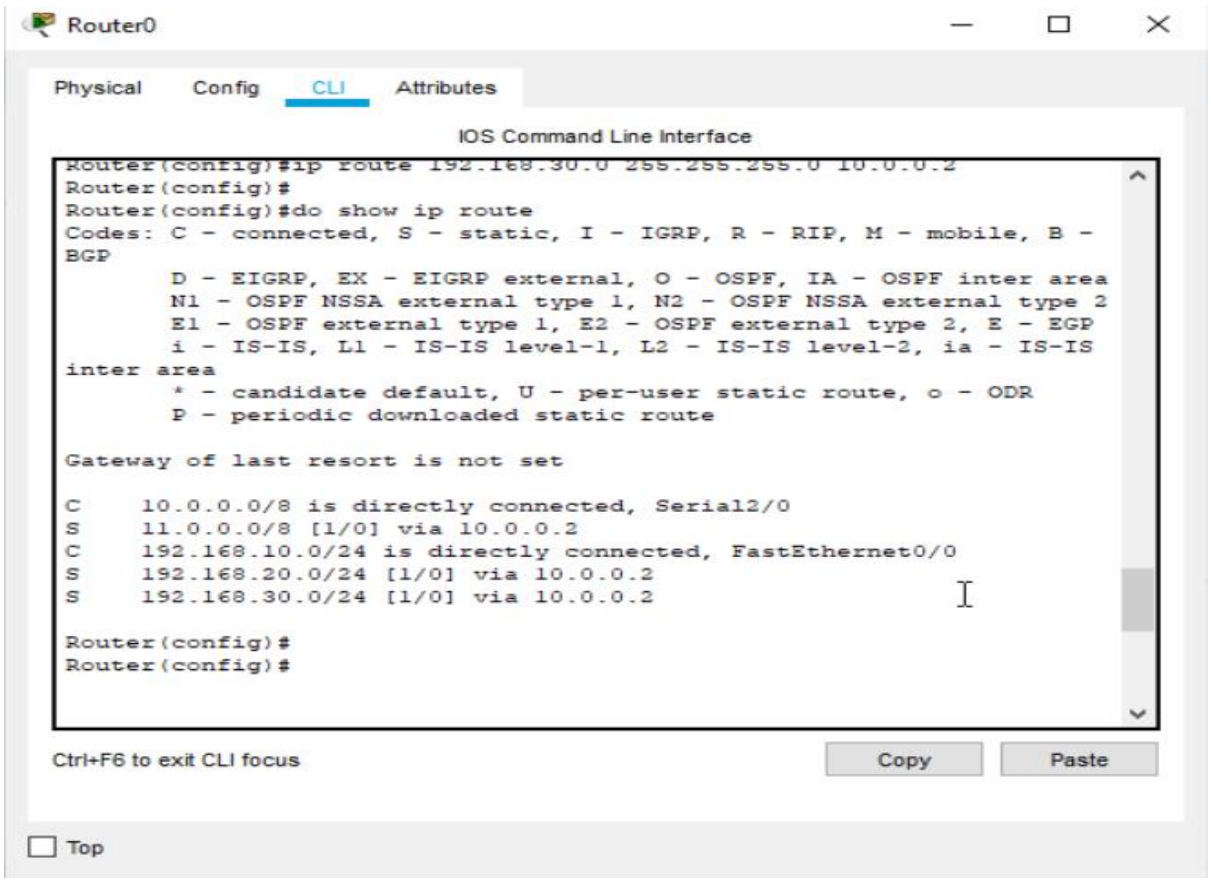
Ctrl+F6 to exit CLI focus Copy Paste

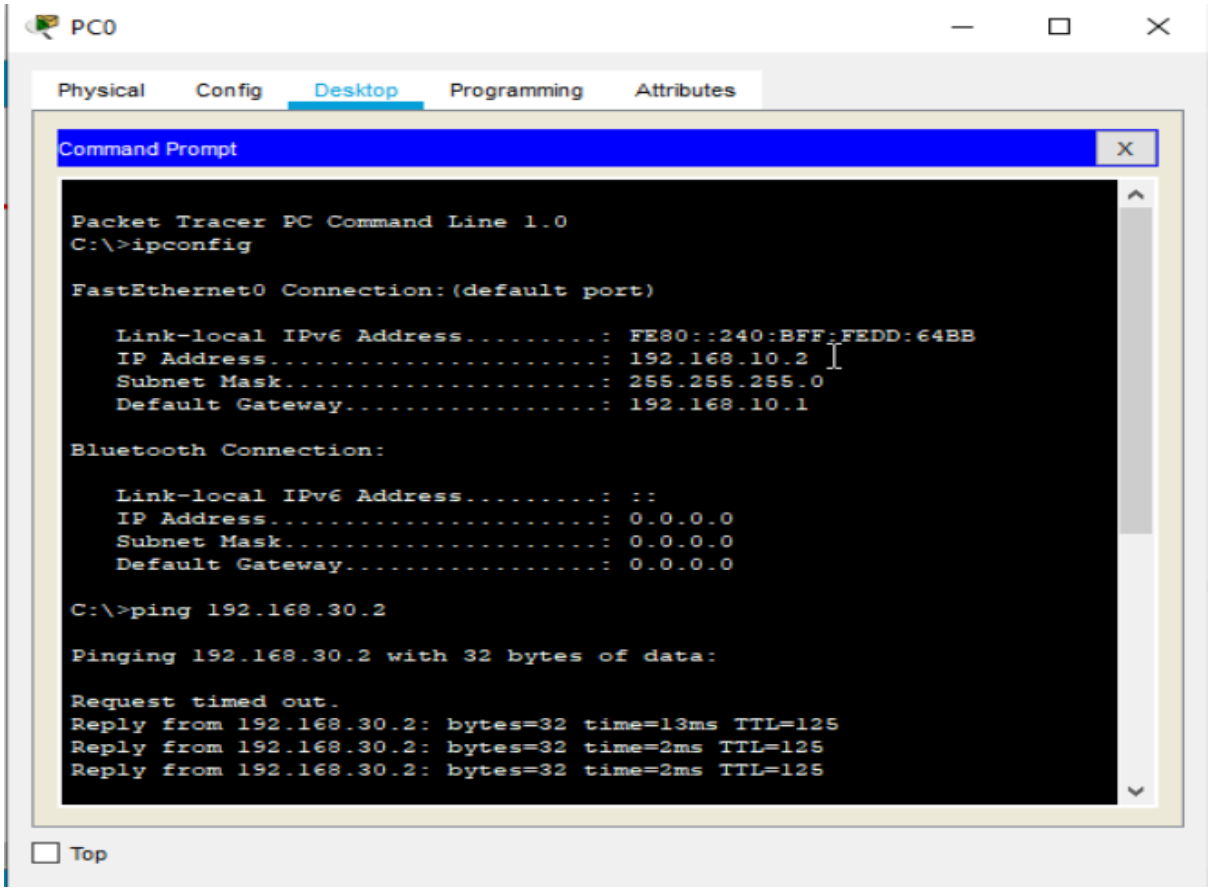
Top

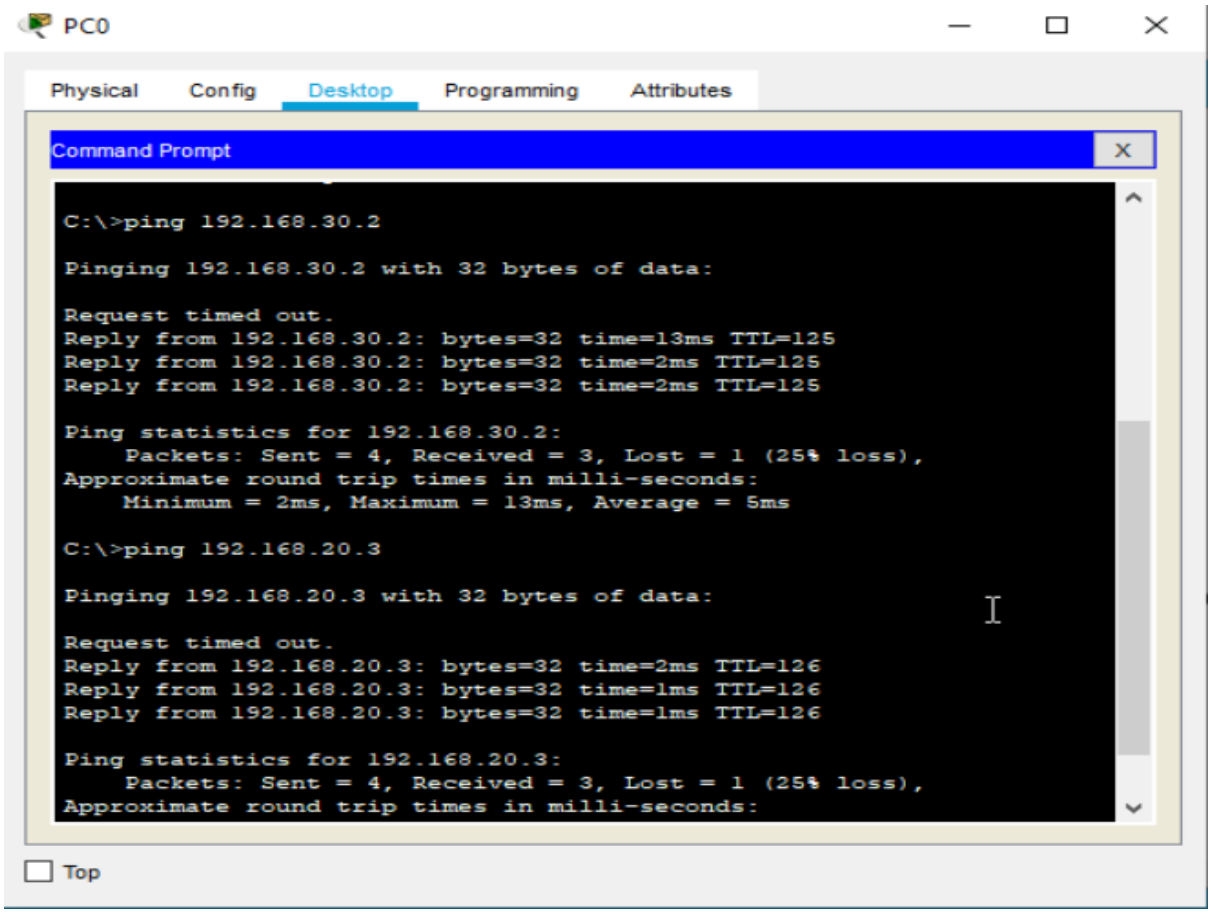

Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set
C 10.0.0.0/8 is directly connected, Serial2/0
C 11.0.0.0/8 is directly connected, Serial3/0
C 192.168.20.0/24 is directly connected, FastEthernet0/0
Router(config)#ip route 192.168.10.0 255.255.255.0 10.0.0.1
Router(config)#ip route 192.168.30.o 255.255.255.0 11.0.0.2
% Invalid input detected at '^' marker.
Router(config)#ip route 192.168.30.0 255.255.255.0 11.0.0.2
Router(config)#
Router(config)#do 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
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config)#ip route 192.168.30.0 255.255.255.0 11.0.0.2
Router(config)#
Router(config)#do 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 10.0.0.0/8 is directly connected, Serial2/0
C 11.0.0.0/8 is directly connected, Serial3/0
S 192.168.10.0/24 [1/0] via 10.0.0.1
C 192.168.20.0/24 is directly connected, FastEthernet0/0
S 192.168.30.0/24 [1/0] via 11.0.0.2
Router(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#do 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 10.0.0.0/8 is directly connected, Serial2/0
C 192.168.10.0/24 is directly connected, FastEthernet0/0
Router(config)#ip route 192.168.20.0 255.255.255.0 10.0.0.2
Router(config)#ip route 11.0.0.0 255.0.0.0 10.0.0.2
Router(config)#ip route 192.168.30.0 255.255.255.0 10.0.0.2
Router(config)#
Router(config)#do show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B -
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config)#ip route 192.168.30.0 255.255.255.0 10.0.0.2
Router(config)#
Router(config)#do 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 10.0.0.0/8 is directly connected, Serial2/0
S 11.0.0.0/8 [1/0] via 10.0.0.2
C 192.168.10.0/24 is directly connected, FastEthernet0/0
S 192.168.20.0/24 [1/0] via 10.0.0.2
S 192.168.30.0/24 [1/0] via 10.0.0.2
Router(config)#
Router(config)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ipconfig
FastEthernet0 Connection:(default port)
Link-local IPv6 Address.....: FE80::240:BFF:FEDD:64BB
IP Address.....: 192.168.10.2
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 192.168.10.1
Bluetooth Connection:
Link-local IPv6 Address.....: ::
IP Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0
C:\>ping 192.168.30.2
Pinging 192.168.30.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.30.2: bytes=32 time=13ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Top


PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ping 192.168.30.2
Pinging 192.168.30.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.30.2: bytes=32 time=13ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Ping statistics for 192.168.30.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 13ms, Average = 5ms
C:\>ping 192.168.20.3
Pinging 192.168.20.3 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.3: bytes=32 time=2ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Ping statistics for 192.168.20.3:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Top

PC4

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=2ms TTL=125
Reply from 192.168.10.2: bytes=32 time=2ms TTL=125
Reply from 192.168.10.2: bytes=32 time=2ms TTL=125
Reply from 192.168.10.2: bytes=32 time=3ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=3ms TTL=126
Reply from 192.168.20.2: bytes=32 time=2ms TTL=126
Reply from 192.168.20.2: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
```

Top

PC3

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.10.3: bytes=32 time=2ms TTL=126
Reply from 192.168.10.3: bytes=32 time=10ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 10ms, Average = 4ms

C:\>ping 192.168.30.2

Pinging 192.168.30.2 with 32 bytes of data:

Reply from 192.168.30.2: bytes=32 time=1ms TTL=126
Reply from 192.168.30.2: bytes=32 time=1ms TTL=126
Reply from 192.168.30.2: bytes=32 time=1ms TTL=126
Reply from 192.168.30.2: bytes=32 time=6ms TTL=126

Ping statistics for 192.168.30.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

Top