LAB EVALUATION-2 - NETWORK PROGRAMMING

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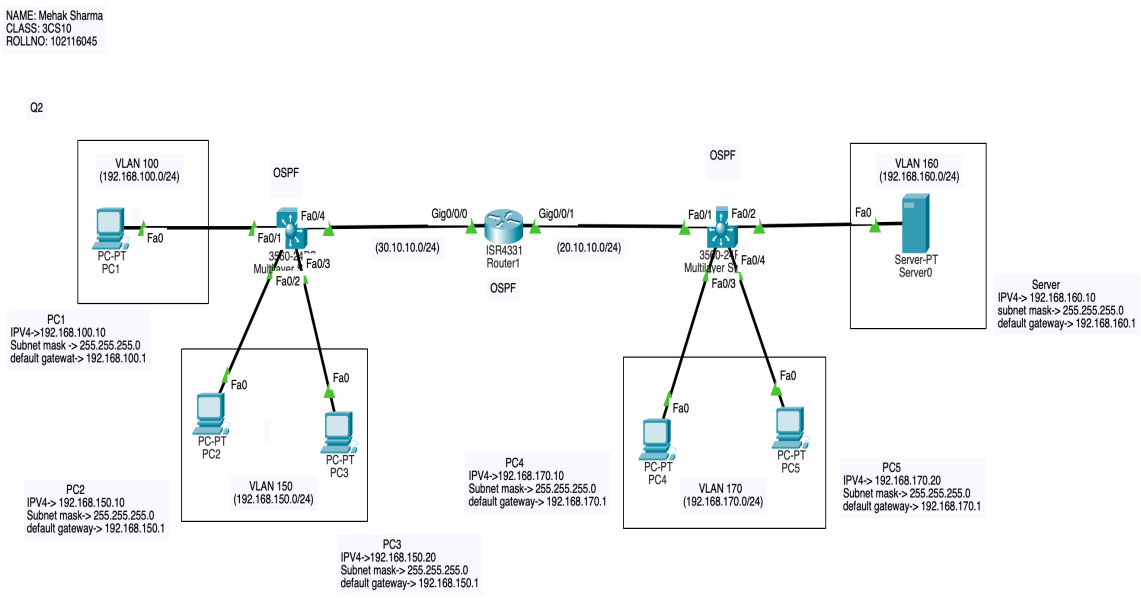
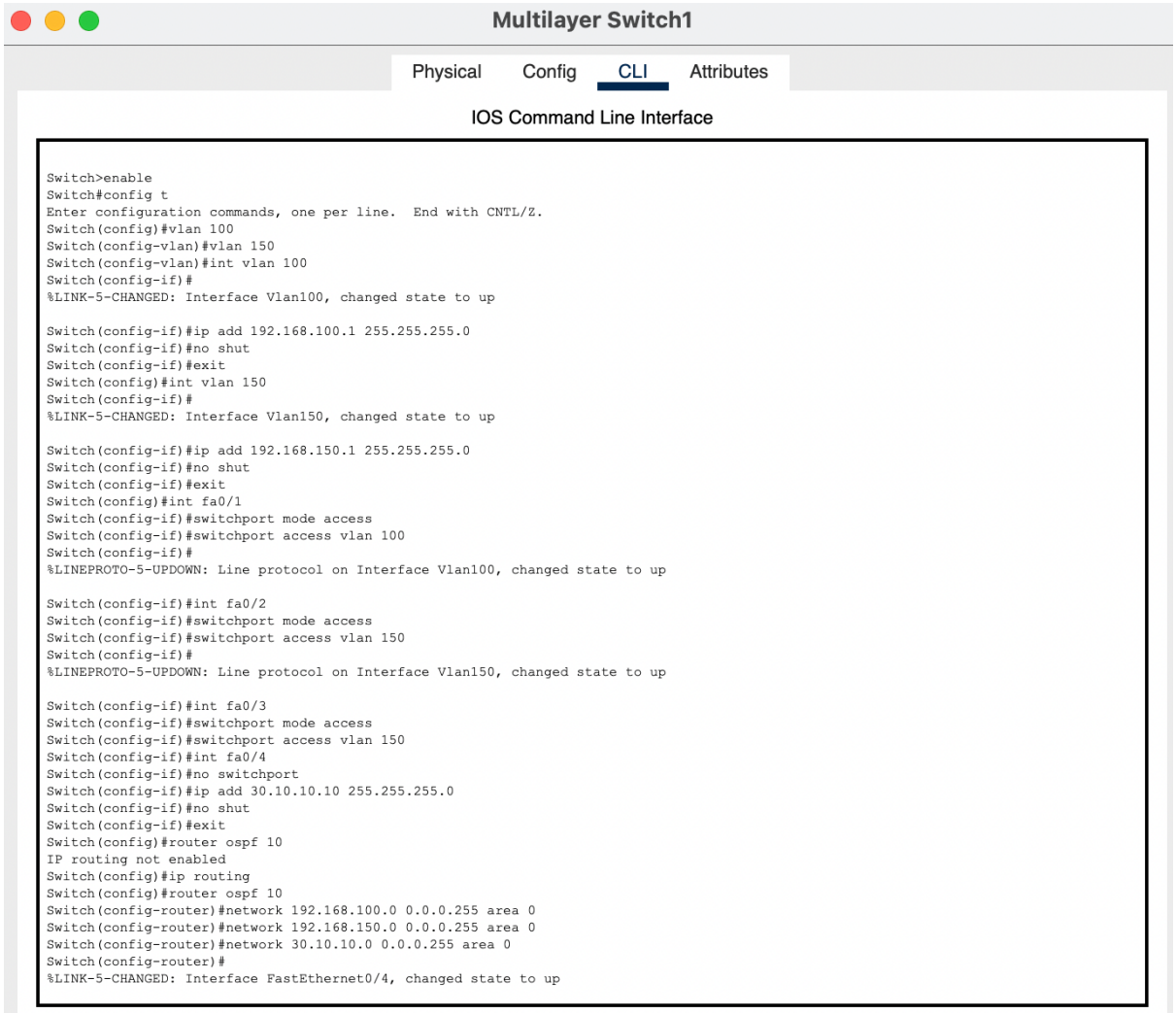
Q2

TOPOLOGY:

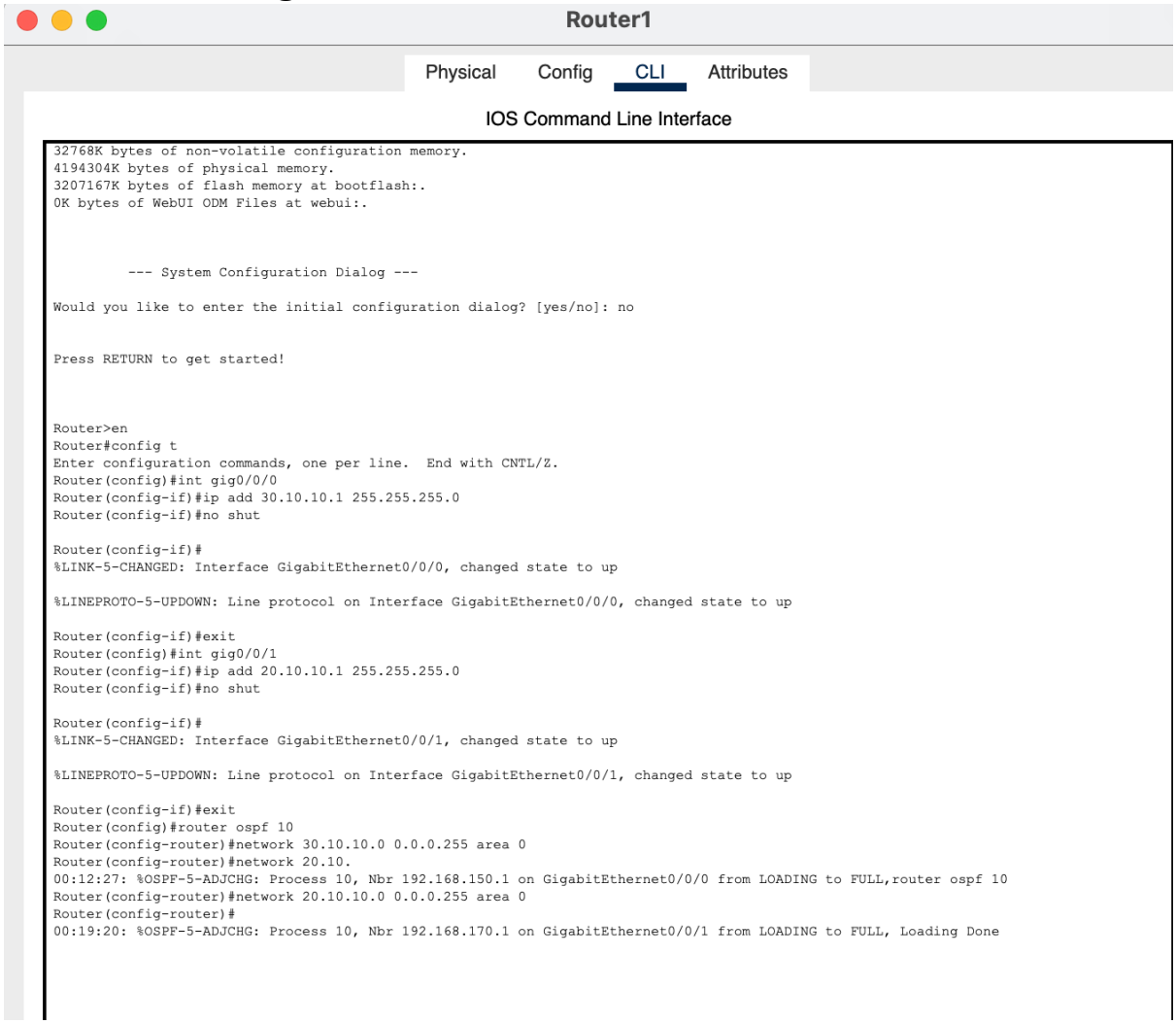


Switch-1 configuration:

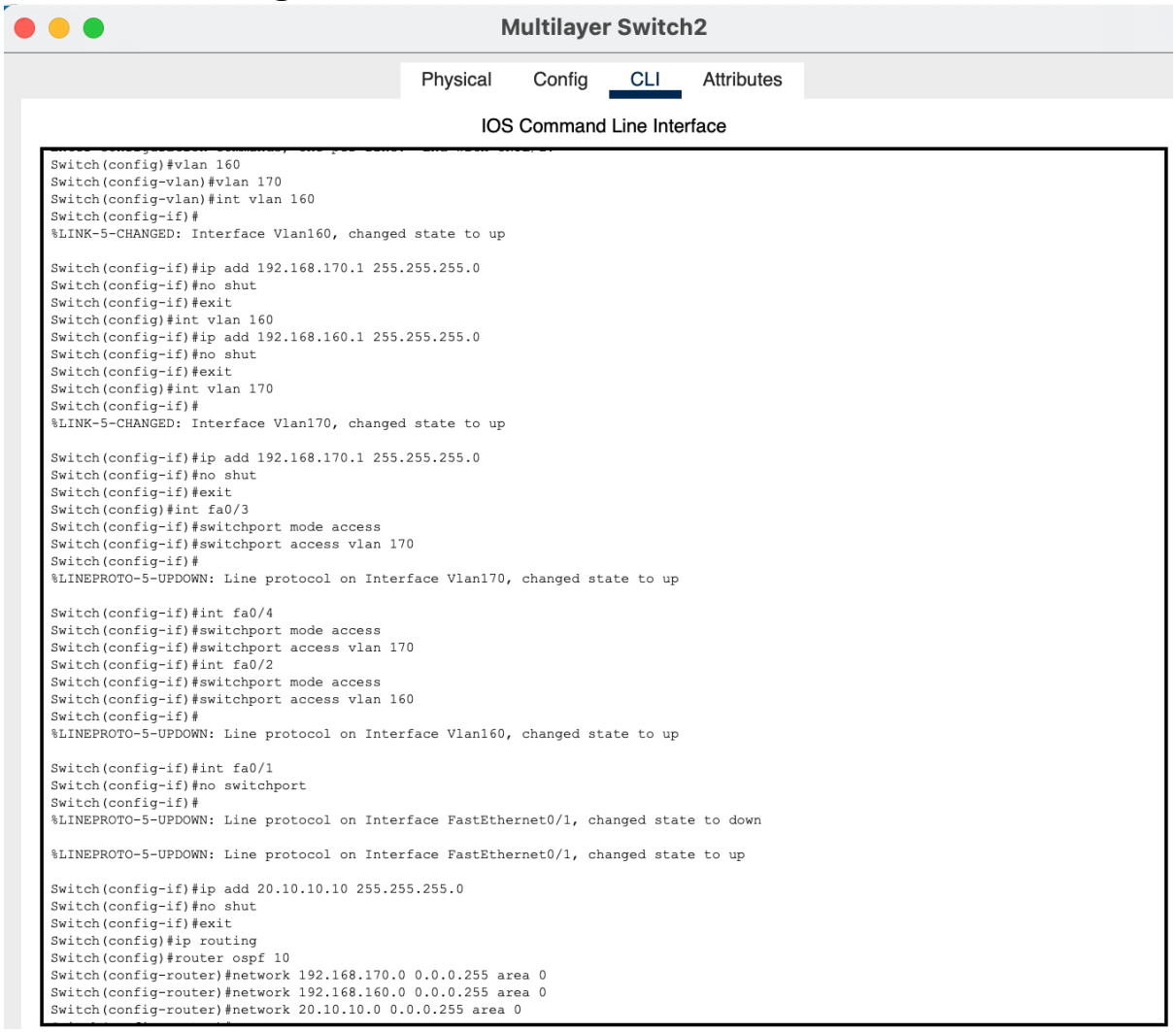



```
Switch>enable
Switch#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 100
Switch(config-vlan)#vlan 150
Switch(config-vlan)#int vlan 100
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan100, changed state to up

Switch(config-if)#ip add 192.168.100.1 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#int vlan 150
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan150, changed state to up

Switch(config-if)#ip add 192.168.150.1 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#int fa0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 100
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan100, changed state to up

Switch(config-if)#int fa0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 150
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan150, changed state to up

Switch(config-if)#int fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 150
Switch(config-if)#int fa0/4
Switch(config-if)#no switchport
Switch(config-if)#ip add 30.10.10.10 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#router ospf 10
IP routing not enabled
Switch(config)#ip routing
Switch(config)#router ospf 10
Switch(config-router)#network 192.168.100.0 0.0.0.255 area 0
Switch(config-router)#network 192.168.150.0 0.0.0.255 area 0
Switch(config-router)#network 30.10.10.0 0.0.0.255 area 0
Switch(config-router)#
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
```

Router-1 configuration:



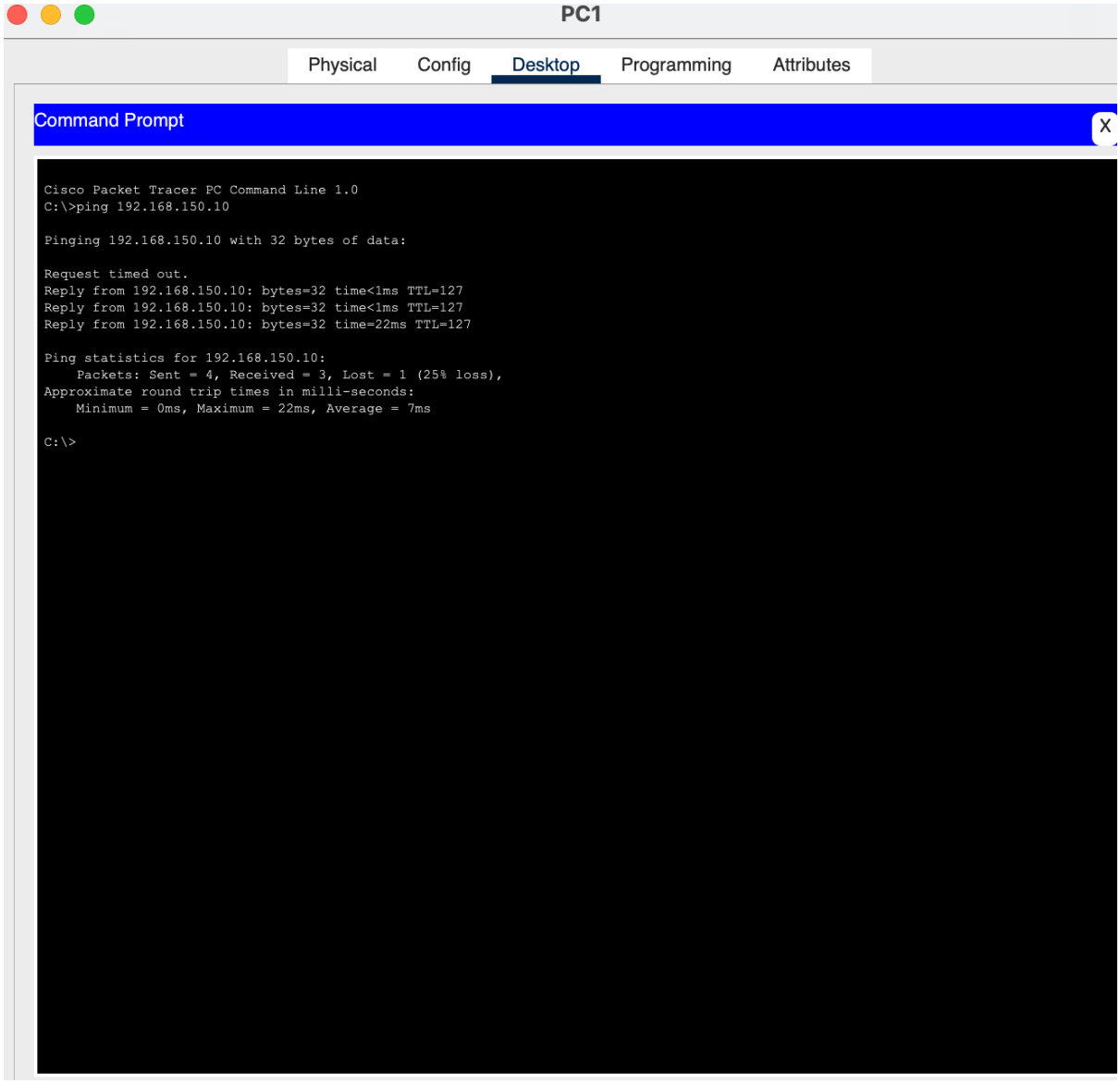
Switch-2 configuration:



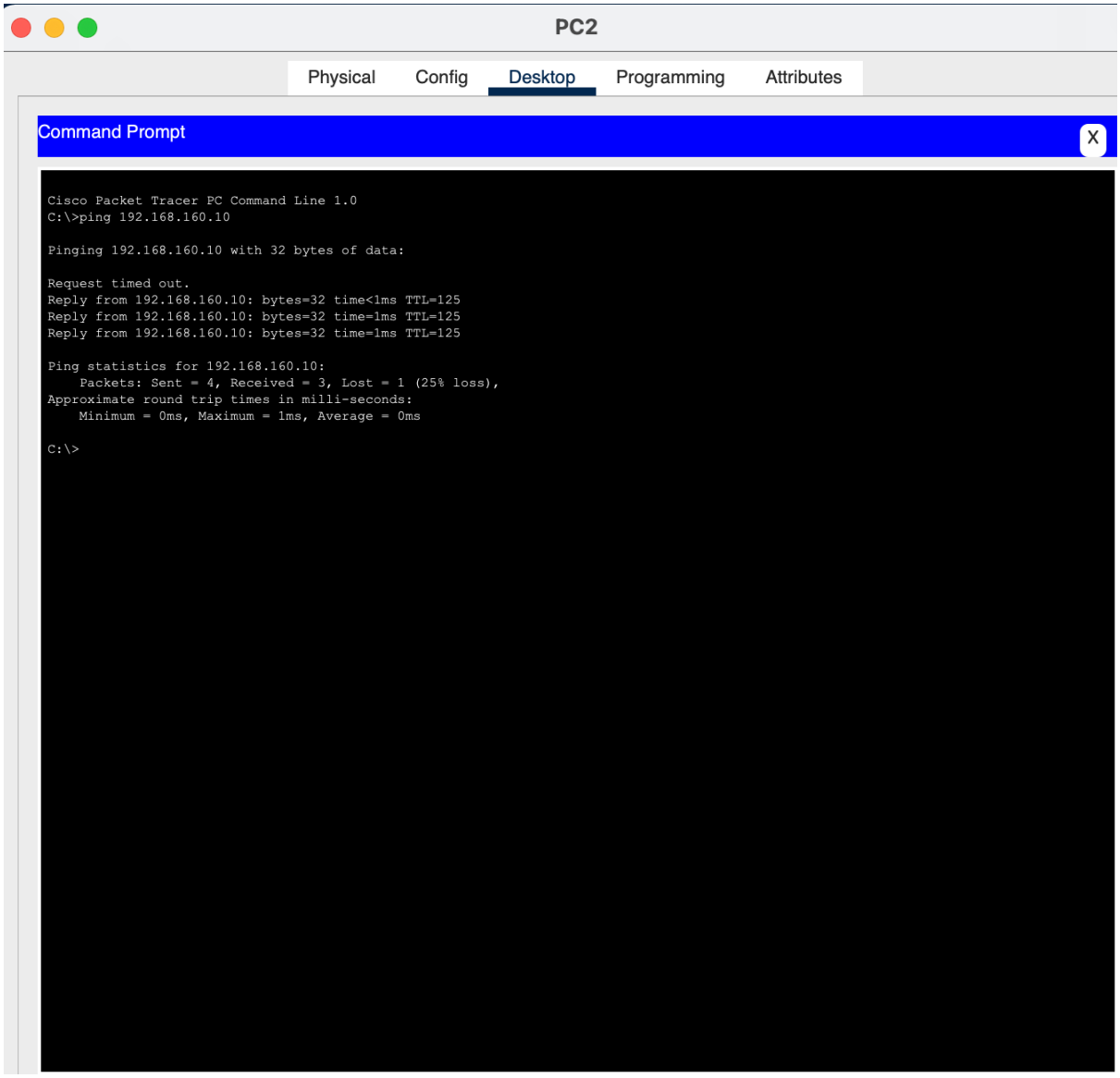

```
Switch(config)#vlan 160
Switch(config-vlan)#vlan 170
Switch(config-vlan)#int vlan 160
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan160, changed state to up

Switch(config-if)#ip add 192.168.170.1 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#int vlan 160
Switch(config-if)#ip add 192.168.160.1 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#int vlan 170
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan170, changed state to up

Switch(config-if)#ip add 192.168.170.1 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#int fa0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 170
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan170, changed state to up

Switch(config-if)#int fa0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 170
Switch(config-if)#int fa0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 160
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan160, changed state to up

Switch(config-if)#int fa0/1
Switch(config-if)#no switchport
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch(config-if)#ip add 20.10.10.10 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#ip routing
Switch(config)#router ospf 10
Switch(config-router)#network 192.168.170.0 0.0.0.255 area 0
Switch(config-router)#network 192.168.160.0 0.0.0.255 area 0
Switch(config-router)#network 20.10.10.0 0.0.0.255 area 0
```

Show connectivity:

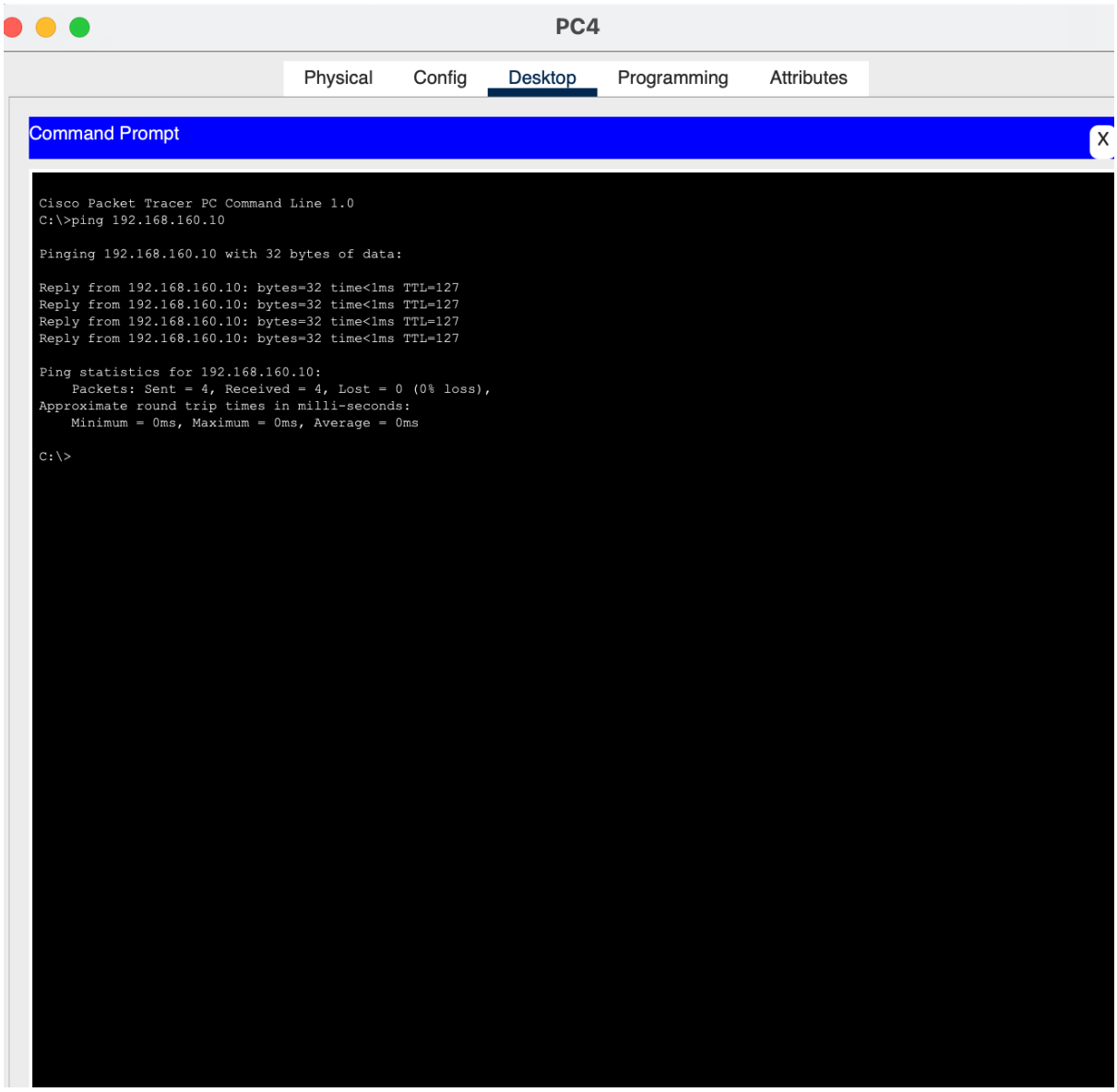
(i) PC1 -> PC2



(ii) PC2-> Server



(iii) PC4-> Server


PC4
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.160.10
Pinging 192.168.160.10 with 32 bytes of data:
Reply from 192.168.160.10: bytes=32 time<1ms TTL=127
Reply from 192.168.160.10: bytes=32 time<1ms TTL=127
Reply from 192.168.160.10: bytes=32 time<1ms TTL=127
Reply from 192.168.160.10: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.160.10:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>