

LAB EVALUATION-2 - NETWORK PROGRAMMING

Name: Mehak Sharma

Group: 3CS10

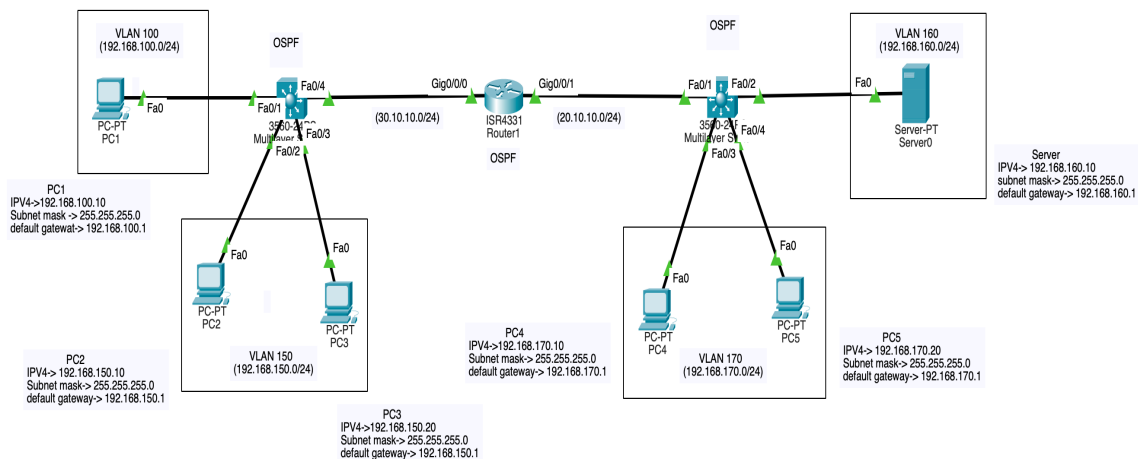
Roll number: 102116045

Q2

TOPOLOGY:

NAME: Mehak Sharma
CLASS: 3CS10
ROLLNO: 102116045

Q2



Switch-1 configuration:

Multilayer Switch1

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
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:

Router1

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
32768K bytes of non-volatile configuration memory.
4194304K bytes of physical memory.
3207167K bytes of flash memory at bootflash:.
0K bytes of WebUI ODM Files at webui:.

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int gig0/0/0
Router(config-if)#ip add 30.10.10.1 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up

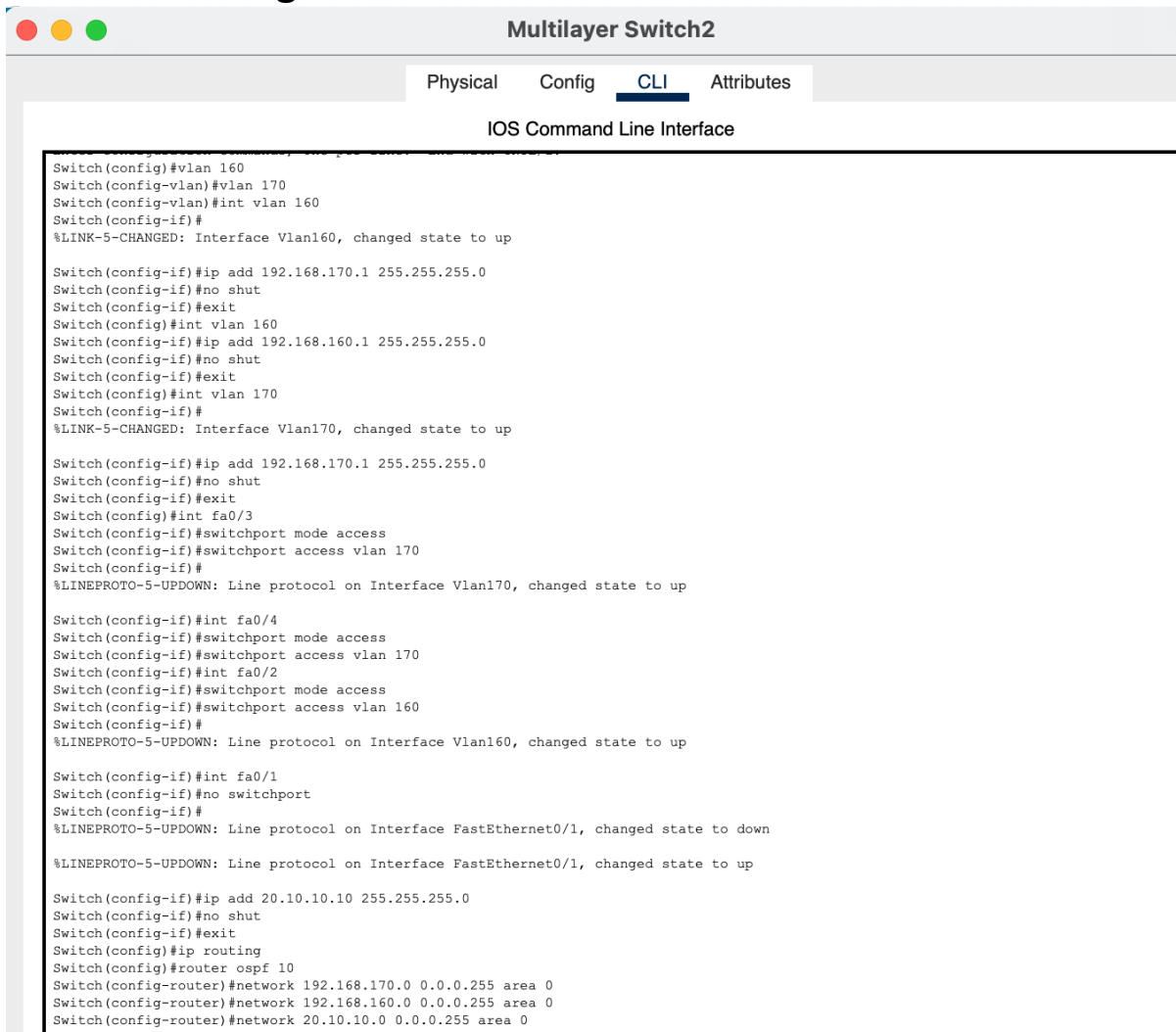
Router(config-if)#exit
Router(config)#int gig0/0/1
Router(config-if)#ip add 20.10.10.1 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1, changed state to up

Router(config-if)#exit
Router(config)#router ospf 10
Router(config-router)#network 30.10.10.0 0.0.0.255 area 0
Router(config-router)#network 20.10.10.0 0.0.0.255 area 0
00:12:27: %OSPF-5-ADJCHG: Process 10, Nbr 192.168.150.1 on GigabitEthernet0/0/0 from LOADING to FULL,router ospf 10
Router(config-router)#network 20.10.10.0 0.0.0.255 area 0
Router(config-router)#
00:19:20: %OSPF-5-ADJCHG: Process 10, Nbr 192.168.170.1 on GigabitEthernet0/0/1 from LOADING to FULL, Loading Done
```

Switch-2 configuration:



The screenshot shows a terminal window titled "Multilayer Switch2" with tabs for "Physical", "Config", "CLI" (selected), and "Attributes". The main area displays the "IOS Command Line Interface" with the following configuration commands and status messages:

```
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

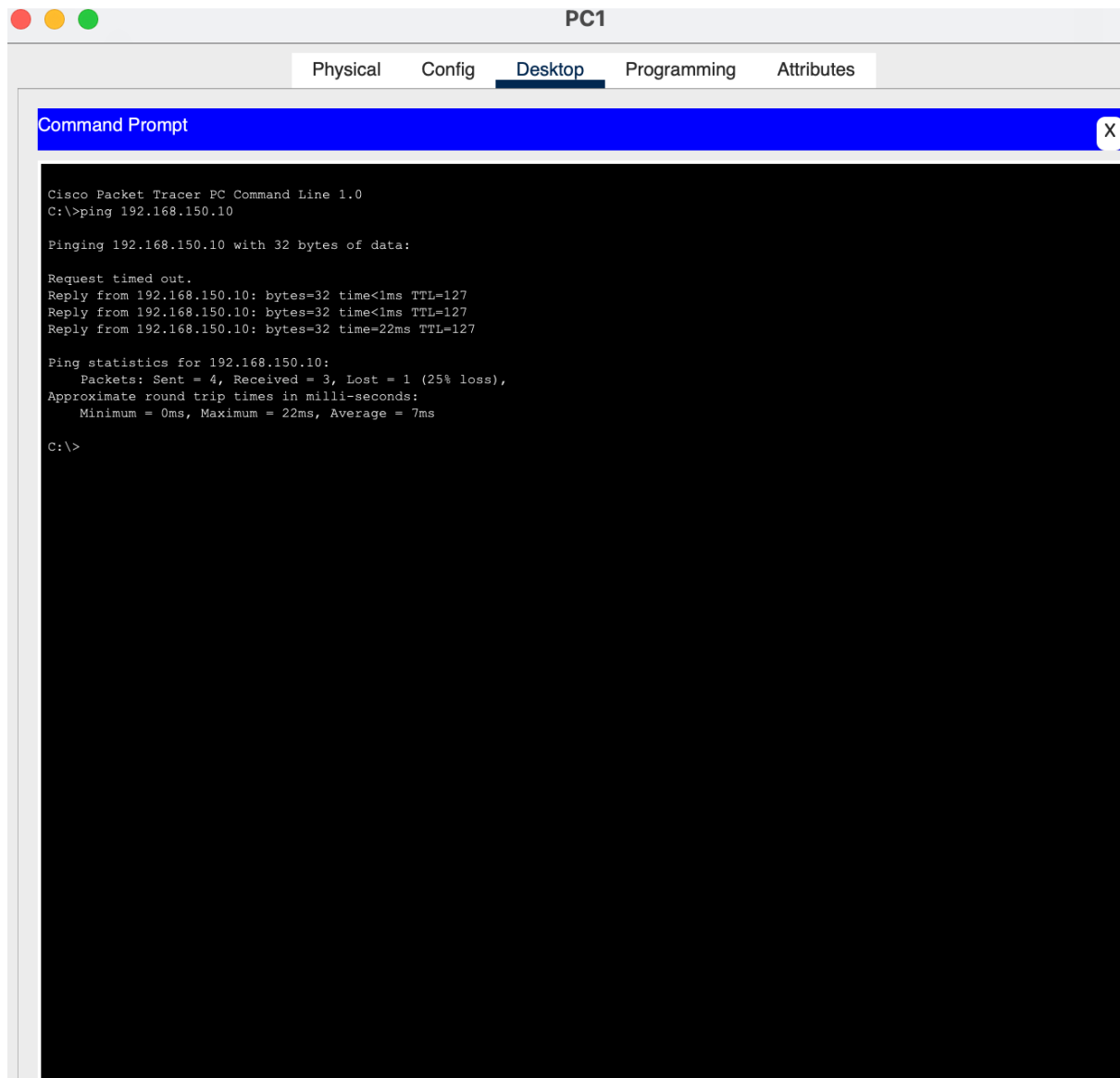
Switch(config-if)#int fa0/1
Switch(config-if)#no switchport
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

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

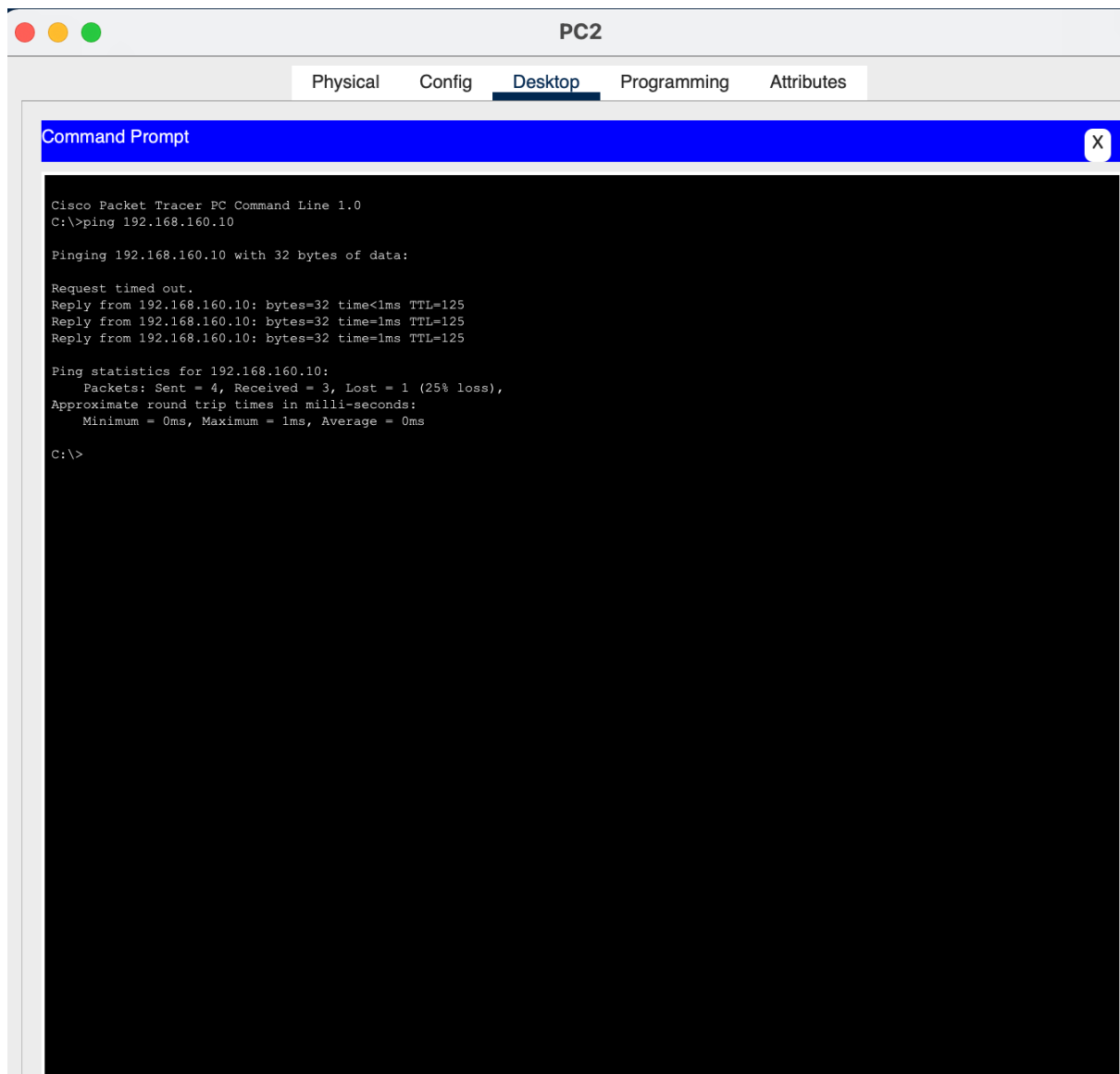
Switch(config-if)#ip add 20.10.10.10 255.255.255.0
Switch(config-if)#no shut
Switch(config-if)#exit
Switch(config)#ip routing
Switch(config)#router ospf 10
Switch(config-router)#network 192.168.170.0 0.0.0.255 area 0
Switch(config-router)#network 192.168.160.0 0.0.0.255 area 0
Switch(config-router)#network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

Show connectivity:

(i) PC1 -> PC2



(ii) PC2-> Server



(iii) PC4-> Server

