Module Title: Data Communication and Computer Networks.

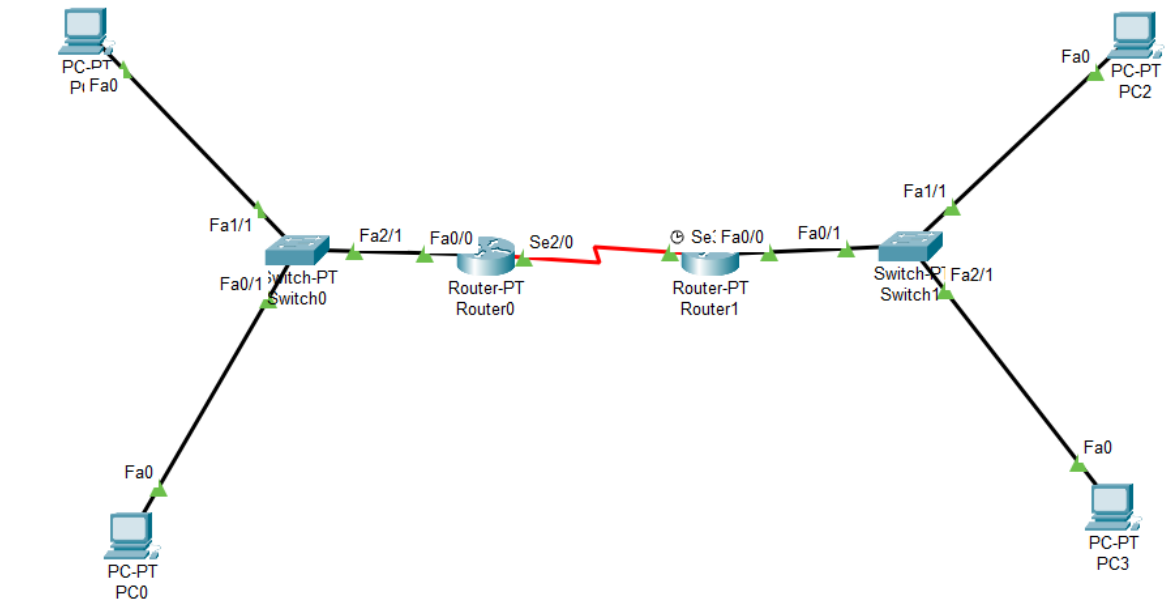
Module Leader: Dr. Sally Al-Gamrawy

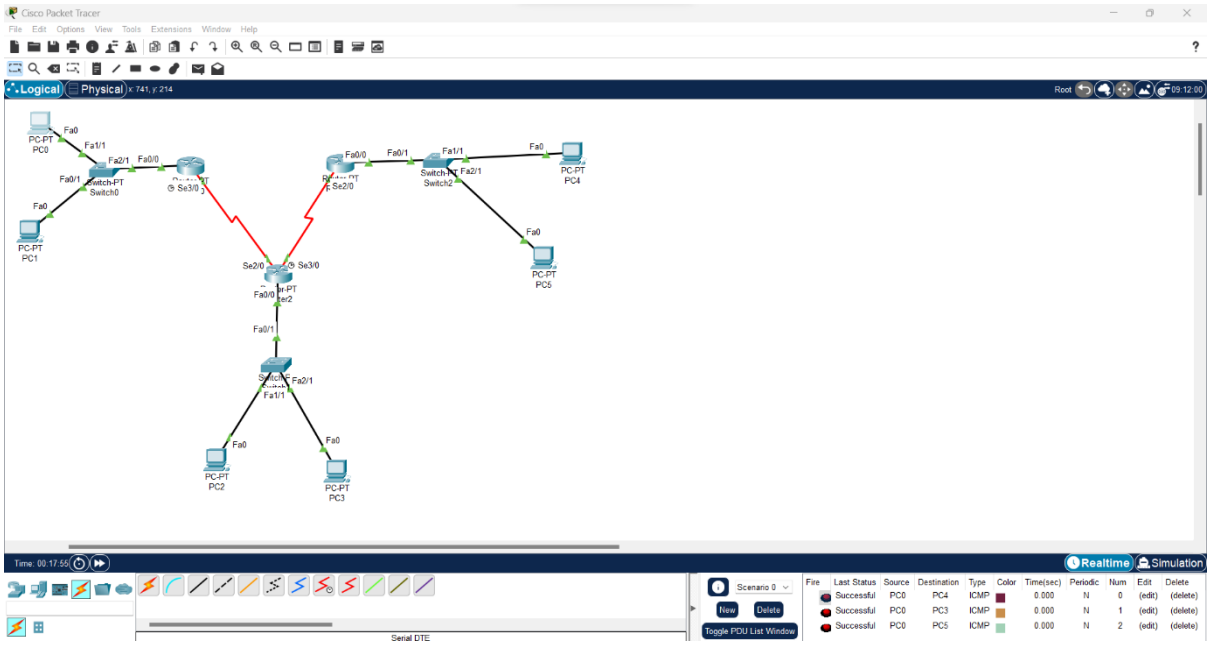
Module TA: Eng. Ameera Amjad Amer

Lab Experiment

muhammad farid 194308

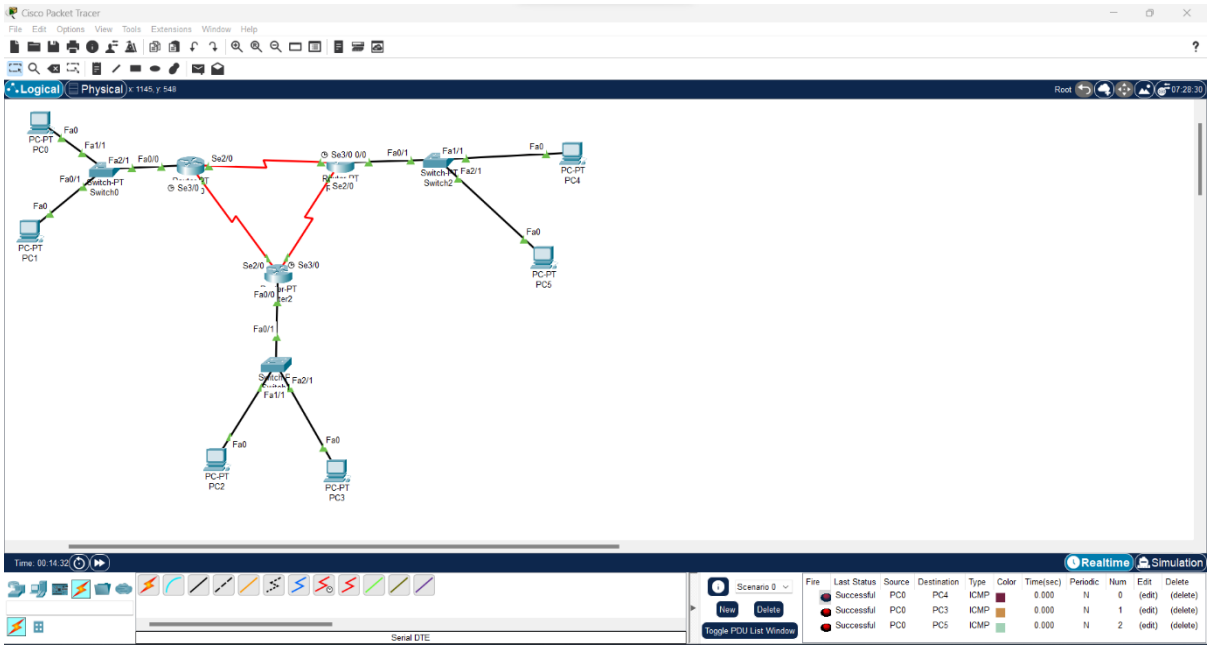
Task (1):

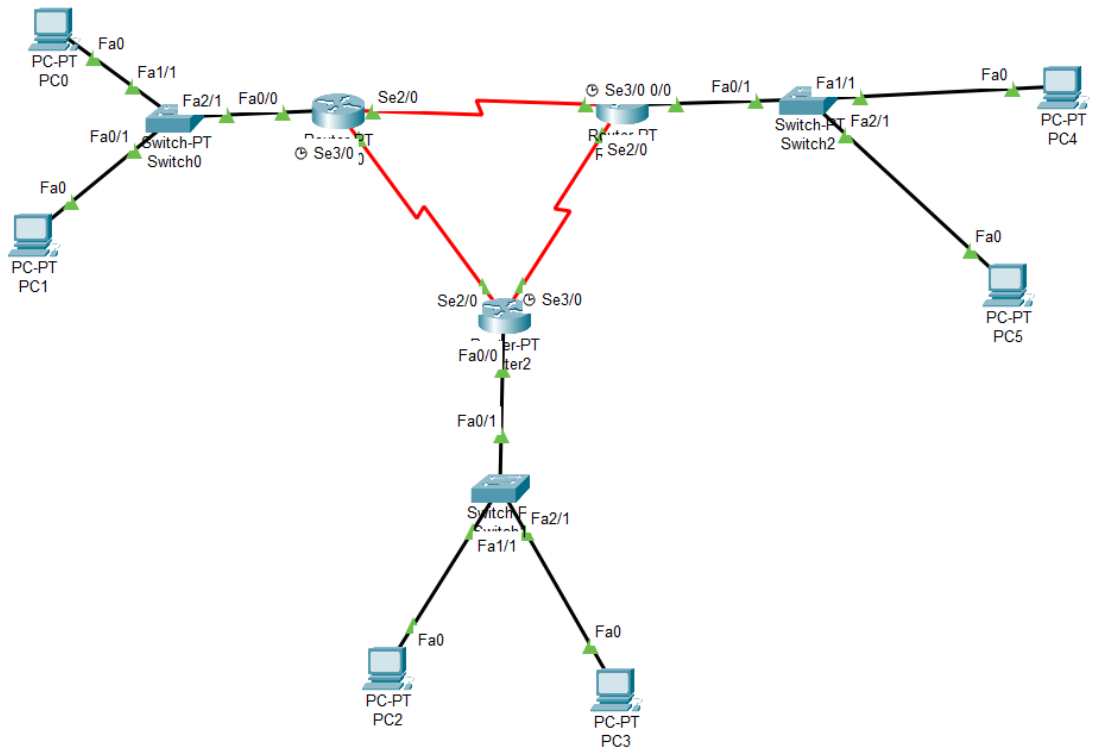


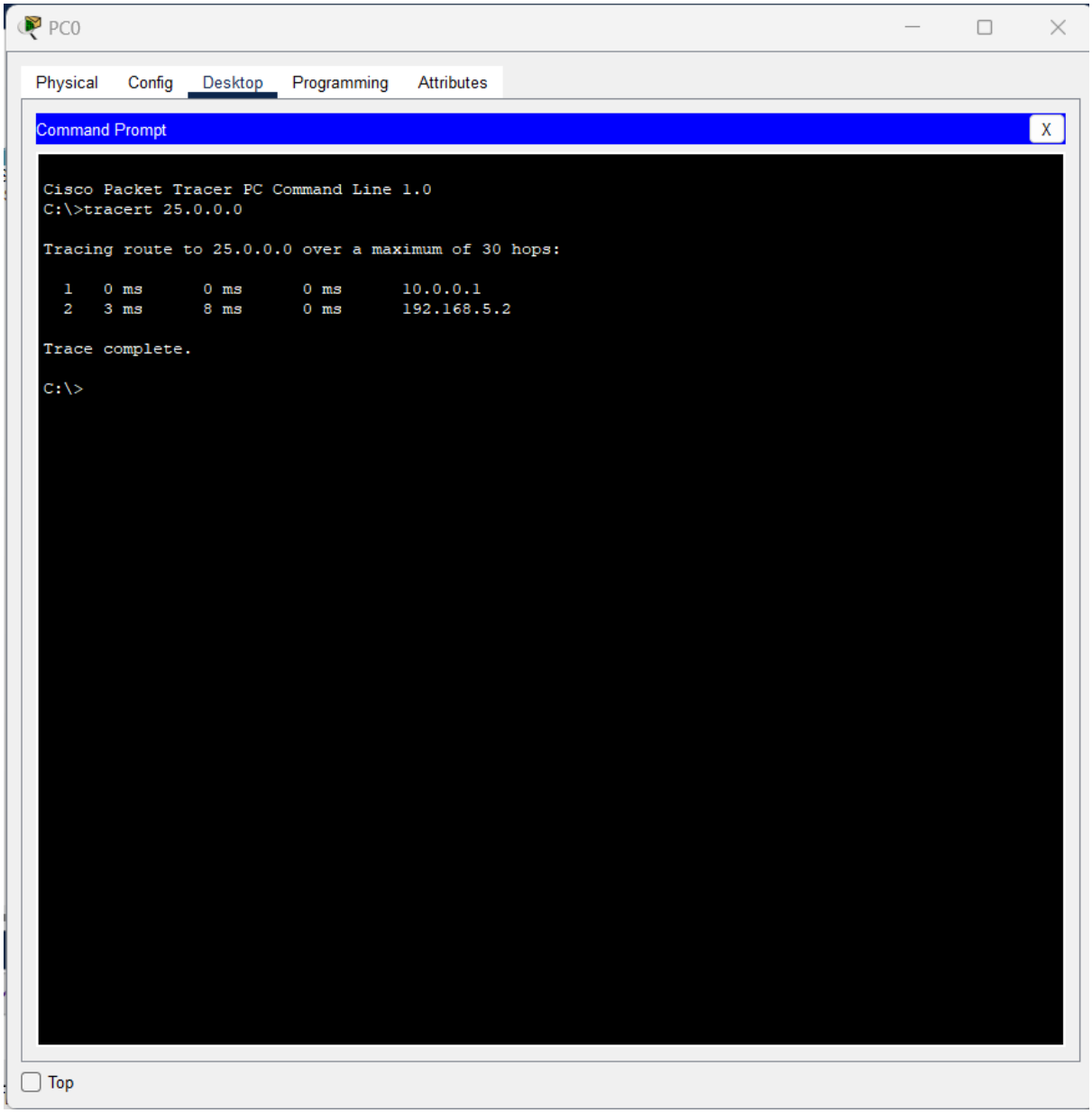


Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC1	PC2	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC1	PC3	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC1	Router1	ICMP		0.000	N	2	(edit)	(delete)

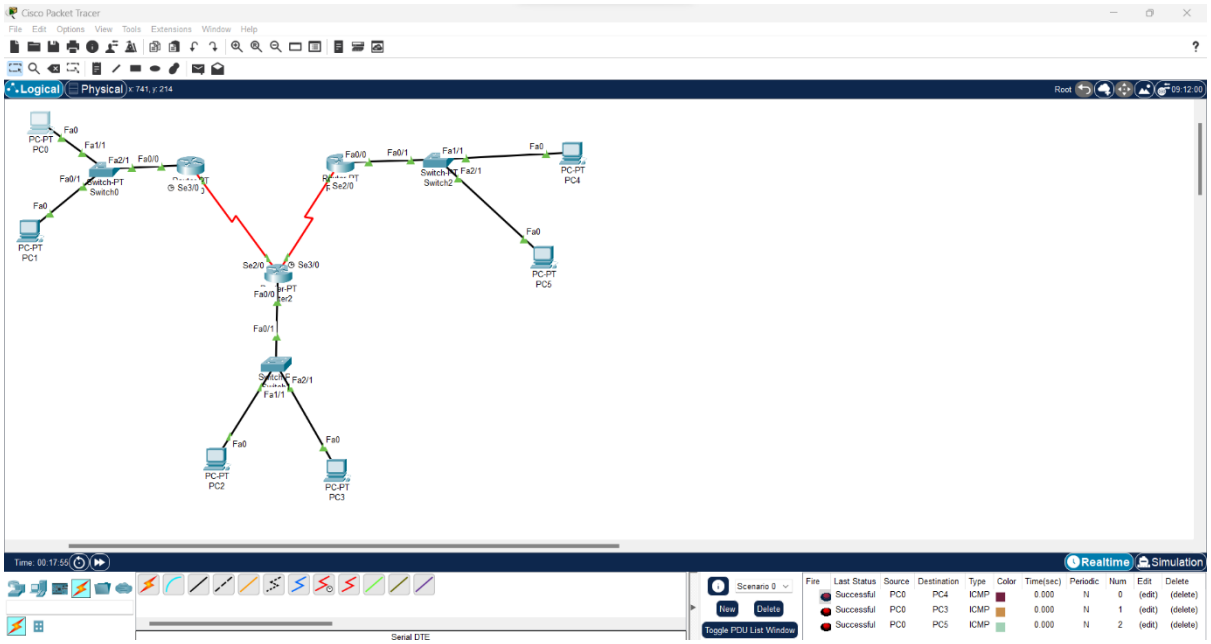
Task (2):

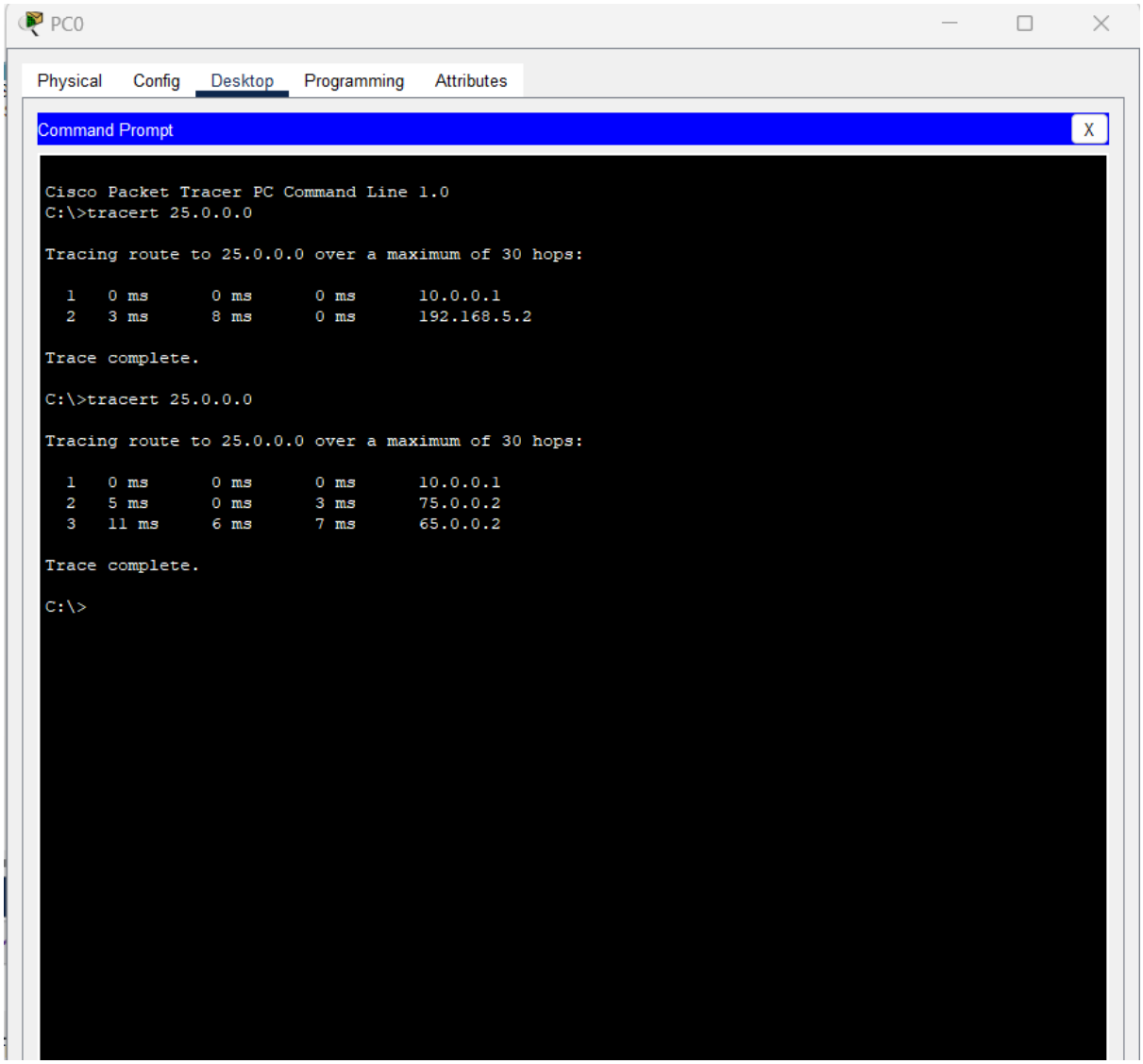



PC-PT PC0
Fa0
Fa1/1
Fa2/1
Fa0/0
Se2/0
Se3/0 0/0
Fa0/1
Switch-PT Switch0
Switch-PT Switch2
PC-PT PC4
PC-PT PC1
PC-PT PC5
Se3/0
Fa0/0
PC-PT PC2
PC-PT PC3

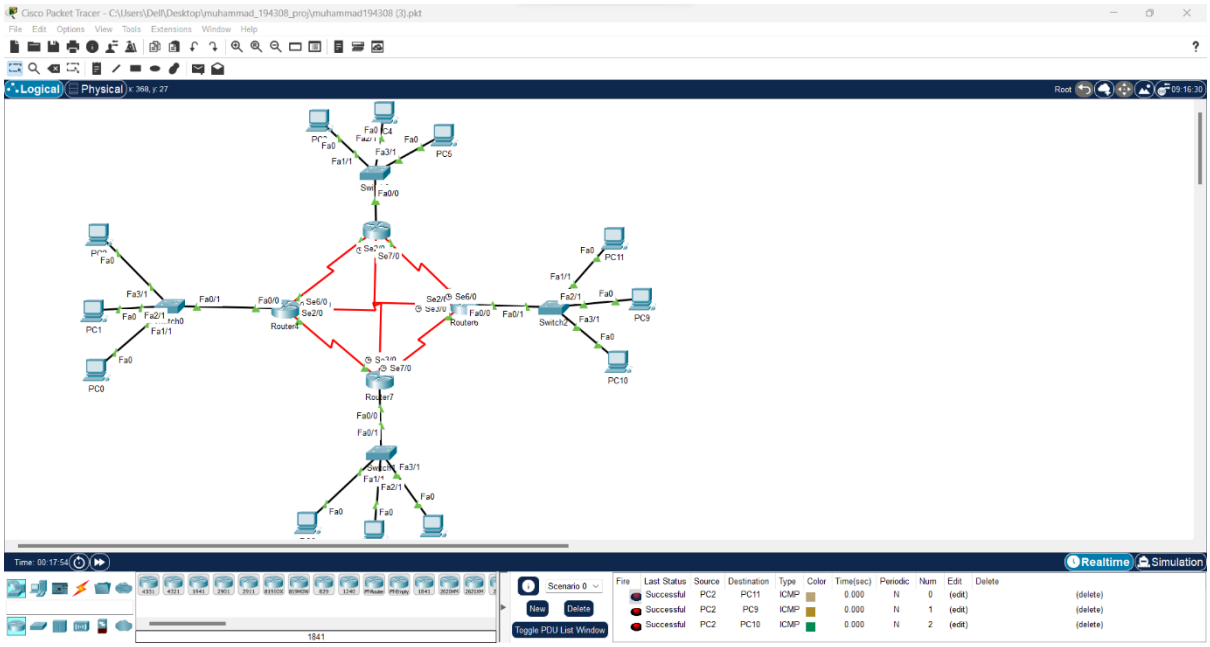

PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>tracert 25.0.0.0
Tracing route to 25.0.0.0 over a maximum of 30 hops:
1 0 ms 0 ms 0 ms 10.0.0.1
2 3 ms 8 ms 0 ms 192.168.5.2
Trace complete.
C:\>
Top

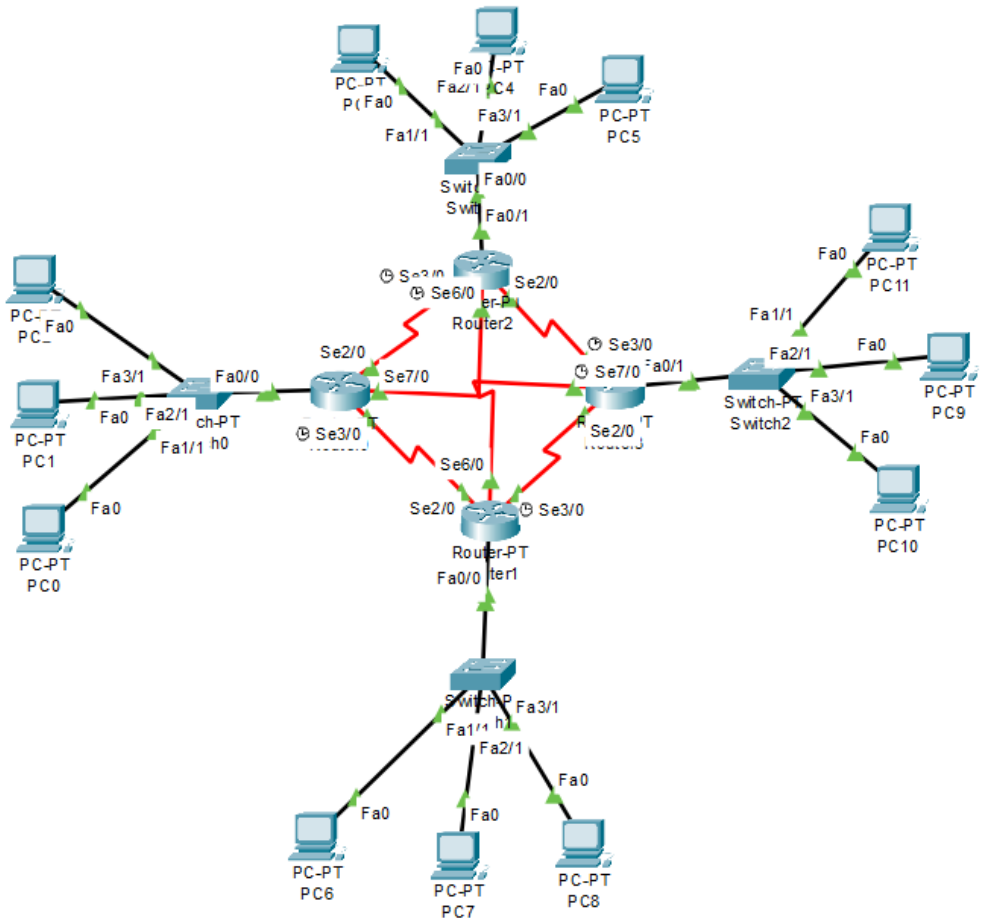
After removing link:



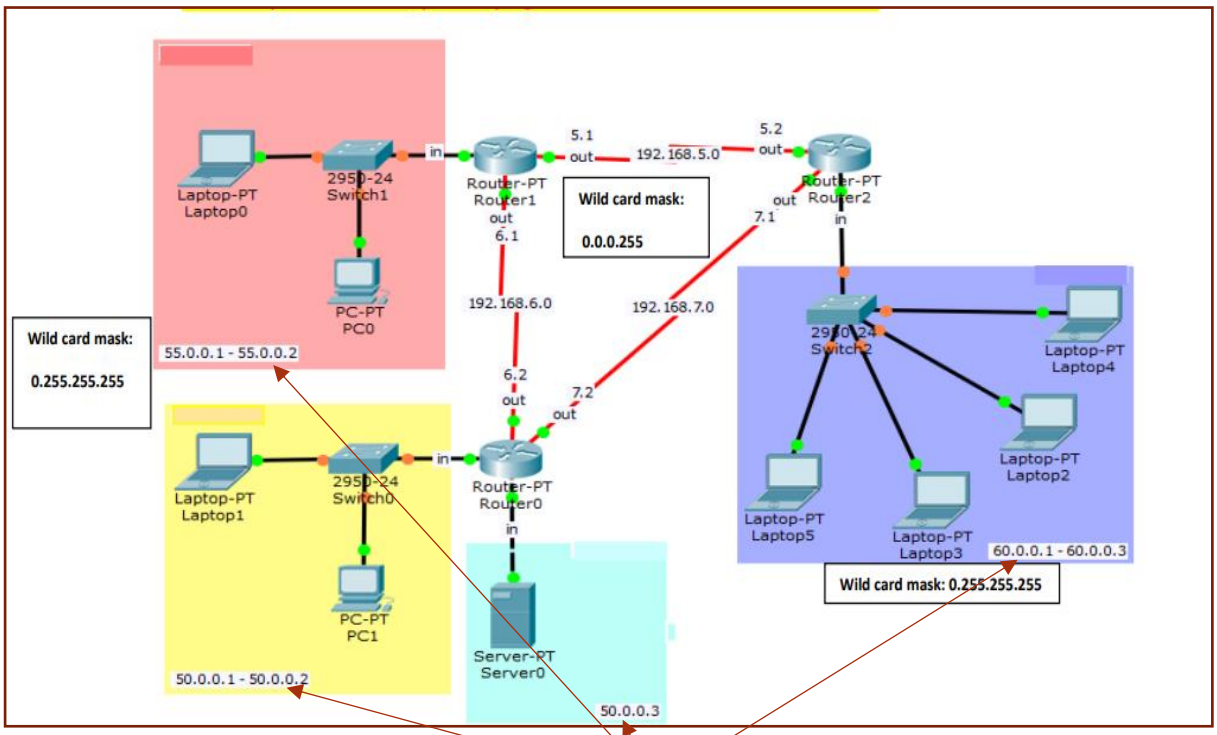


Task (3):

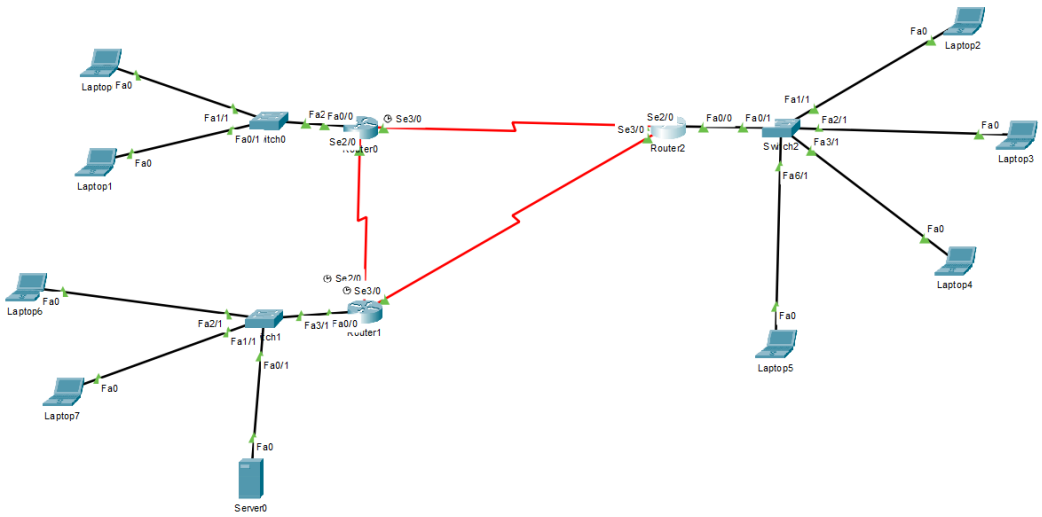

Cisco Packet Tracer - C:\Users\Dell\Desktop\muhammad_194308_proj\muhammad194308 (3).pkt
Logical
Physical
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
Successful PC2 PC11 ICMP 0.000 N 0 (edit) (delete)
Successful PC2 PC9 ICMP 0.000 N 1 (edit) (delete)
Successful PC2 PC10 ICMP 0.000 N 2 (edit) (delete)


PC-PT
PC5
Fa0
Fa1/1
Fa3/1
Fa0/0
Fa0/1
Se2/0
Se6/0
Se7/0
Se3/0
Router2
PC-PT
PC11
Fa2/1
Switch-PT
Switch2
PC-PT
PC9
PC-PT
PC10
PC-PT
PC1
PC-PT
PC0
Router-PT
Fa0/0
Fa3/1
Fa2/1
PC-PT
PC6
PC-PT
PC7
PC-PT
PC8

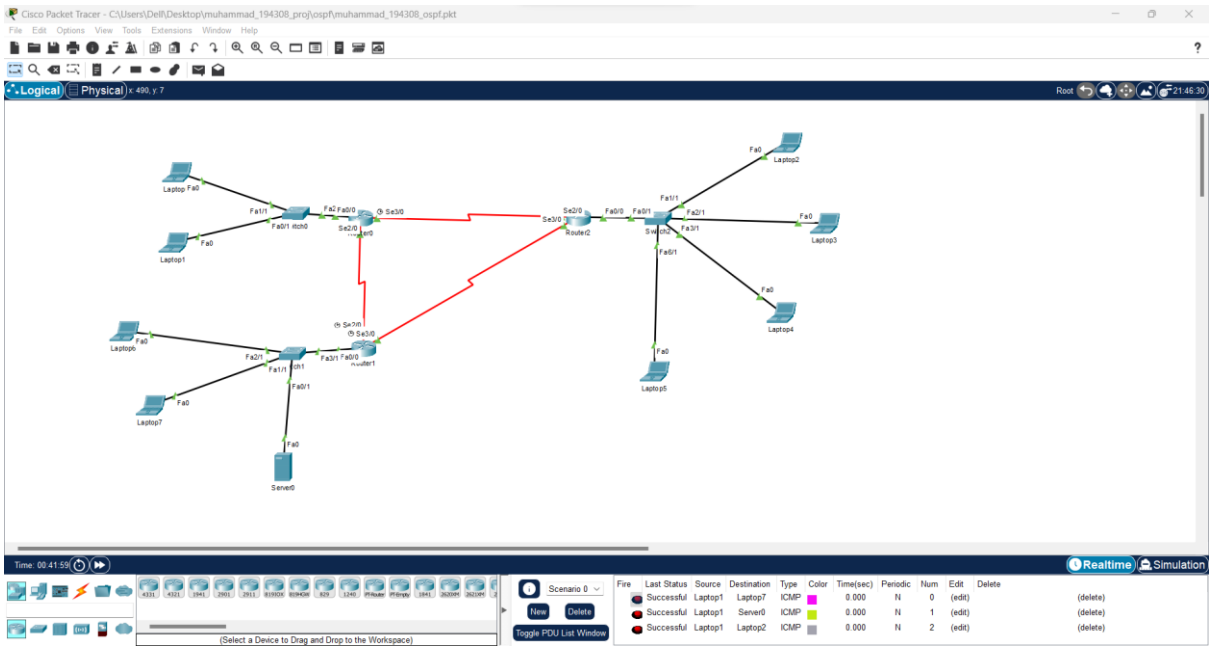
OSPF:



- excluded the ip addresses written

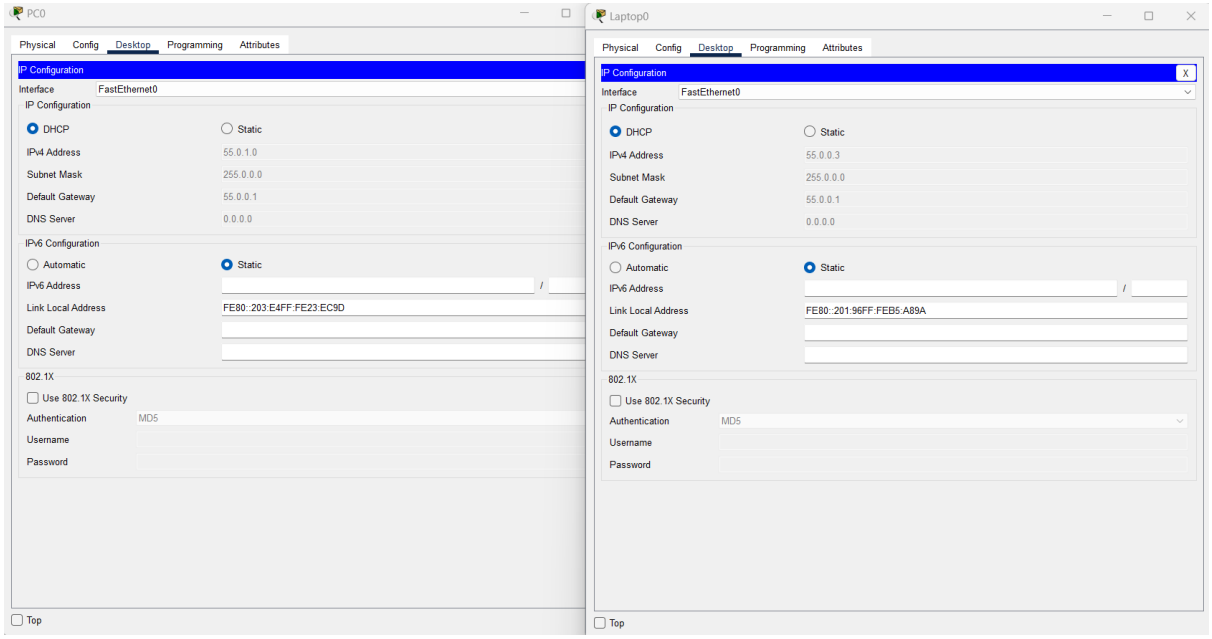


Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Laptop1	Laptop7	ICMP		0.000	N	0	(edit)	(delete)
	Successful	Laptop1	Server0	ICMP		0.000	N	1	(edit)	(delete)
	Successful	Laptop1	Laptop2	ICMP		0.000	N	2	(edit)	(delete)

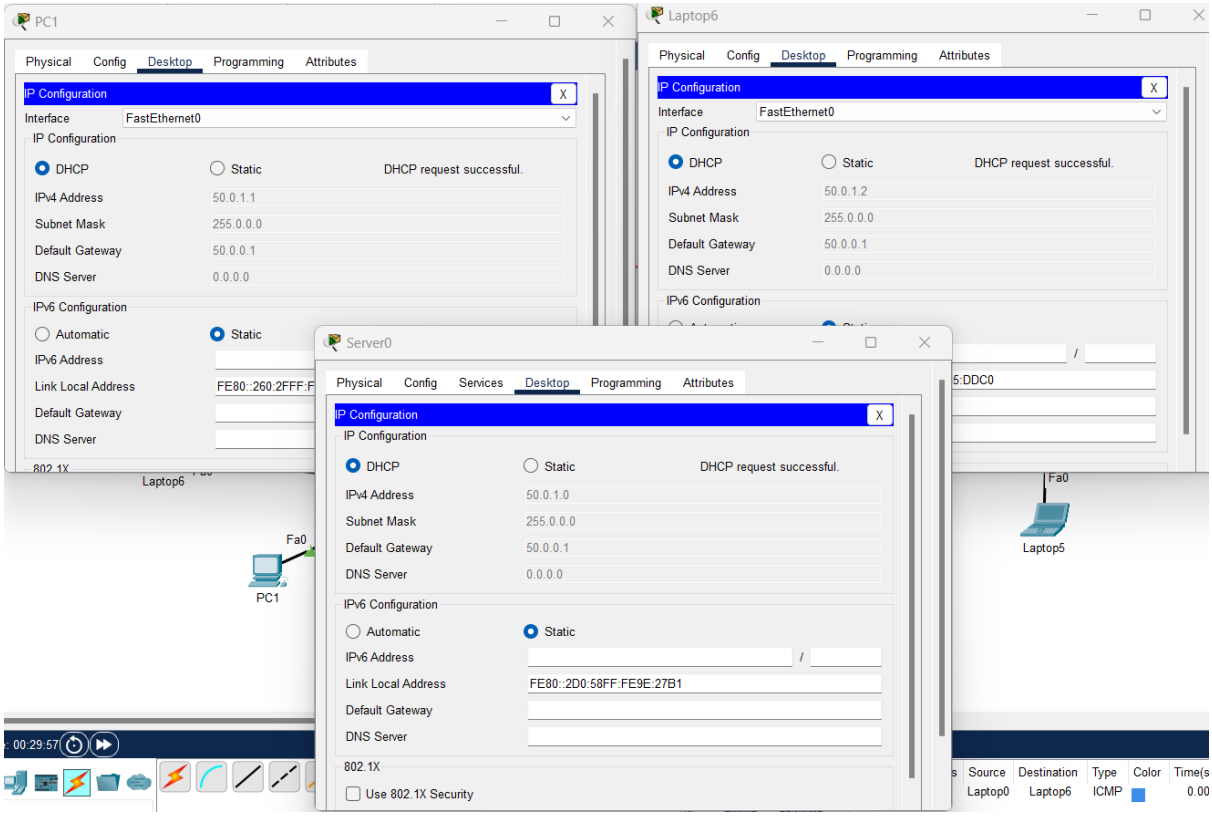


2. Submit printout of DHCP configuration for all hosts.

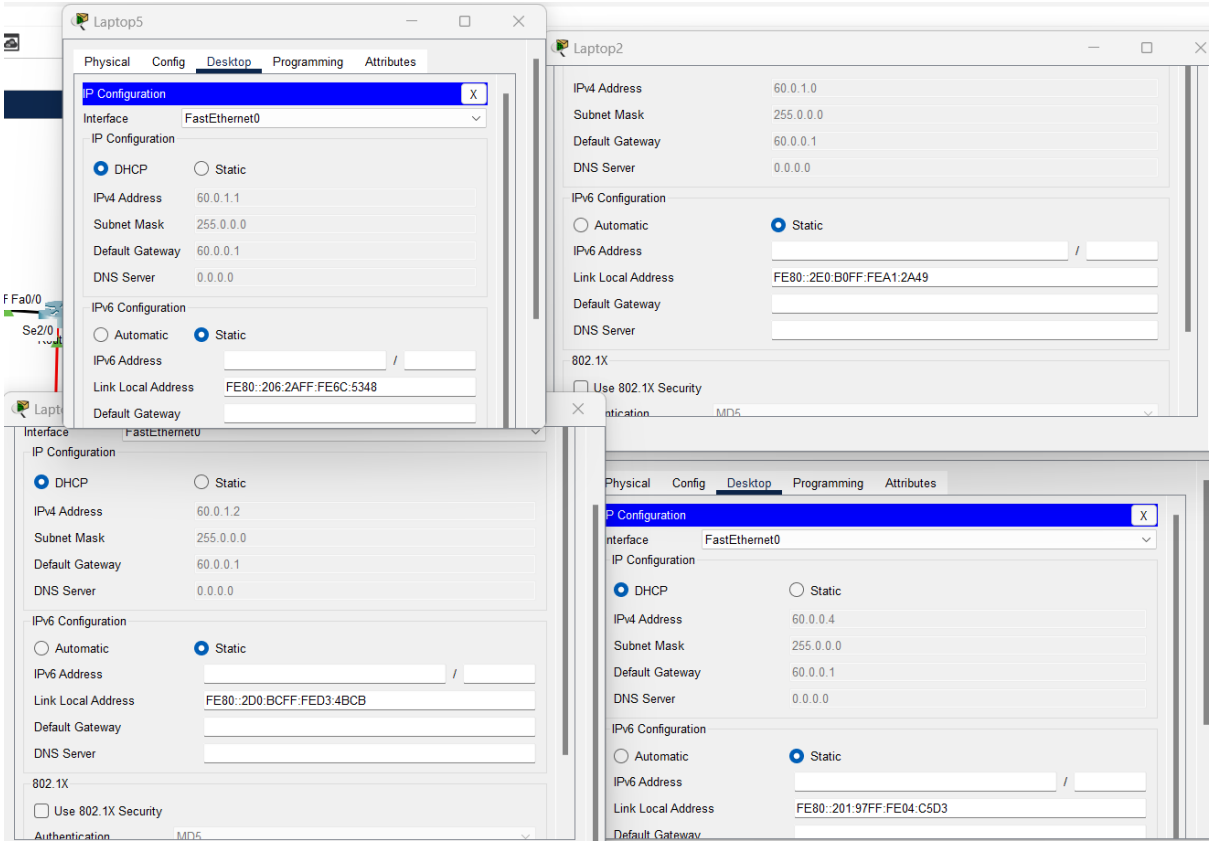
Pc 0, pc 1:



Server0 , pc 6 ,pc 1:



Pc 2,3,4,5:


Laptop5
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
60.0.1.1
Subnet Mask
255.0.0.0
Default Gateway
60.0.0.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::206:2AFF:FE6C:5348
Default Gateway
Laptop2
IPv4 Address
60.0.1.0
Subnet Mask
255.0.0.0
Default Gateway
60.0.0.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::2E0:B0FF:FEA1:2A49
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
IP Configuration
DHCP
Static
IPv4 Address
60.0.1.2
Subnet Mask
255.0.0.0
Default Gateway
60.0.0.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::2D0:BCFF:FED3:4BCB
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
60.0.0.4
Subnet Mask
255.0.0.0
Default Gateway
60.0.0.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::201:97FF:FE04:C5D3
Default Gateway

3. Submit printout of output of “show running-config” of each router

Show running-config (OSPF):

Router 0:

```
Router>en
Router#show running-config
Building configuration...

Current configuration : 1048 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
ip dhcp excluded-address 55.0.0.3 55.0.0.255
ip dhcp excluded-address 50.0.0.1 50.0.0.2
!
ip dhcp pool ip1
 network 55.0.0.0 255.0.0.0
 default-router 55.0.0.1
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 55.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 192.168.6.1 255.255.255.0
!
interface Serial3/0
 ip address 192.168.5.1 255.255.255.0
 clock rate 64000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router ospf 1
 log-adjacency-changes
 network 55.0.0.0 0.255.255.255 area 0
 network 192.168.6.0 0.0.0.255 area 0
 network 192.168.5.0 0.0.0.255 area 0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end
```

0

Dhcp configuration (R0):

```
Router(config)#ip dhcp pool ip1
Router(dhcp-config)#net 55.0.0.0 255.0.0.0
Router(dhcp-config)#default-router 55.0.0.1
Router(dhcp-config)#exit
Router(config)#ip dhcp exc 50.0.0.1 50.0.0.2
Router(config)#
```

Router 1:

```
Router>en
Router#show running-config
Building configuration...

Current configuration : 1083 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
ip dhcp excluded-address 50.0.0.4 50.0.0.255
ip dhcp excluded-address 50.0.0.1 50.0.0.3
!
ip dhcp pool ip2
 network 50.0.0.0 255.0.0.0
 default-router 50.0.0.1
ip dhcp pool ip1
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 50.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 192.168.6.2 255.255.255.0
 clock rate 64000
!
interface Serial3/0
 ip address 192.168.7.2 255.255.255.0
 clock rate 64000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
```

```
 shutdown
!
router ospf 1
 log-adjacency-changes
 network 50.0.0.0 0.255.255.255 area 0
 network 192.168.7.0 0.0.0.255 area 0
 network 192.168.6.0 0.0.0.255 area 0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end
```

Dhcp configuration(R1):

```
Router(config)#ip dhcp pool ip2
Router(dhcp-config)#net 50.0.0.0 255.0.0.0
Router(dhcp-config)#default-router 50.0.0.1
Router(dhcp-config)#exit
Router(config)#ip dhcp exc 50.0.0.1 50.0.0.3
Router(config)#
```

Router 2:

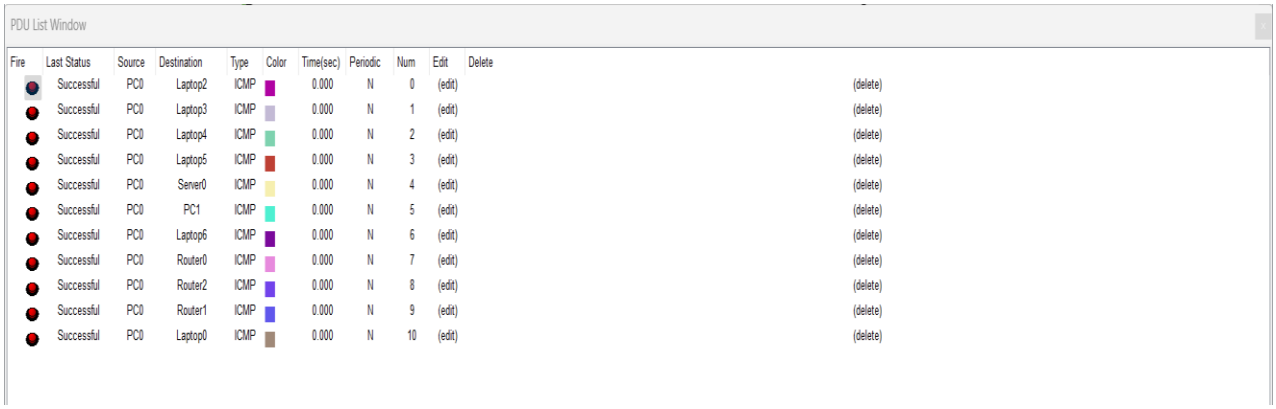
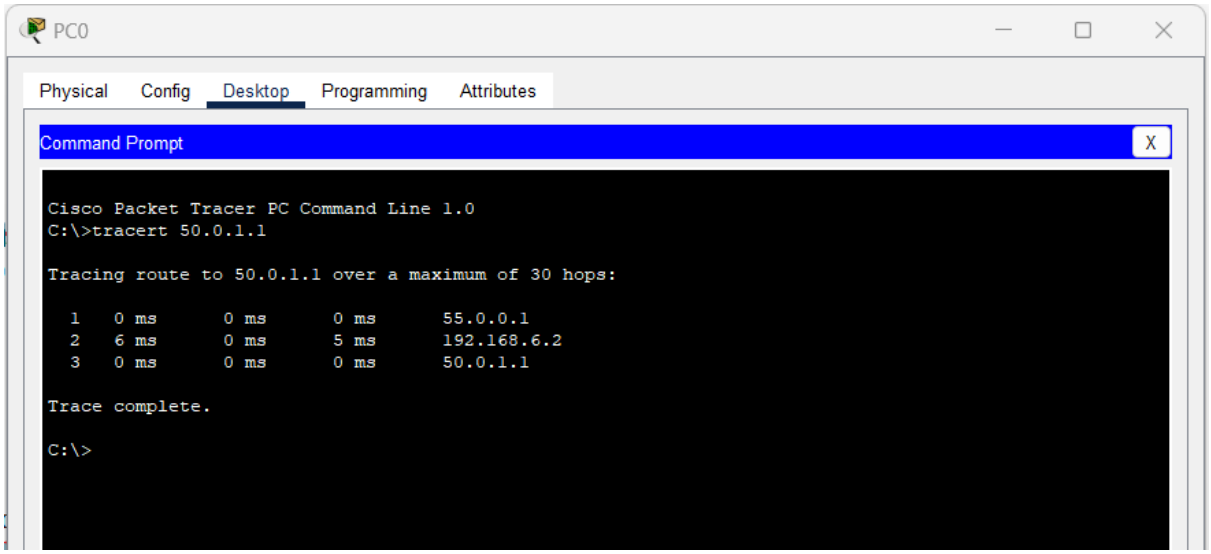
```
Router>en
Router#show running-config
Building configuration...

Current configuration : 1030 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
!
ip dhcp excluded-address 60.0.0.5 60.0.0.255
ip dhcp excluded-address 60.0.0.1 60.0.0.3
!
ip dhcp pool ip3
 network 60.0.0.0 255.0.0.0
 default-router 60.0.0.1
!
!
!
ip cef
no ipv6 cef
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 60.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 192.168.5.2 255.255.255.0
!
interface Serial3/0
 ip address 192.168.7.1 255.255.255.0
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router ospf 1
 log-adjacency-changes
 network 60.0.0.0 0.255.255.255 area 0
 network 192.168.5.0 0.0.0.255 area 0
 network 192.168.7.0 0.0.0.255 area 0
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
 login
!
!
!
end
```

Dhcp configuration(R2):

```
Router(config)#ip dhcp pool ip3
Router(dhcp-config)#net 60.0.0.0 255.0.0.0
Router(dhcp-config)#default-router 60.0.0.1
Router(dhcp-config)#exit
Router(config)#ip dhcp exc 60.0.0.1 60.0.0.3
Router(config)#
```

4. Submit printout of pinging from PC0 to PC1.



From pc0 to pc 1: