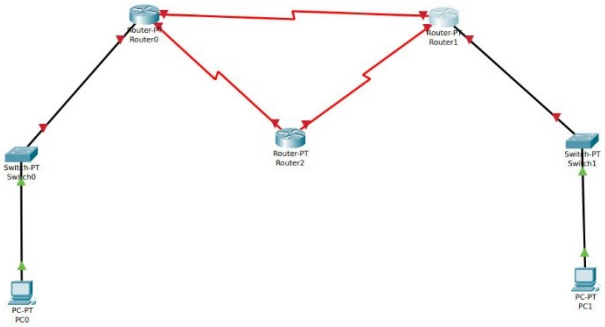
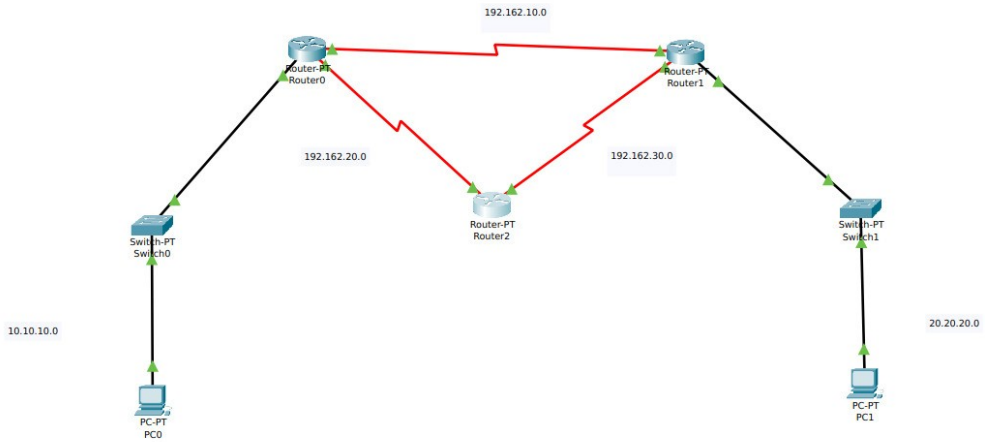
OSPF-DYNAMIC ROUTING

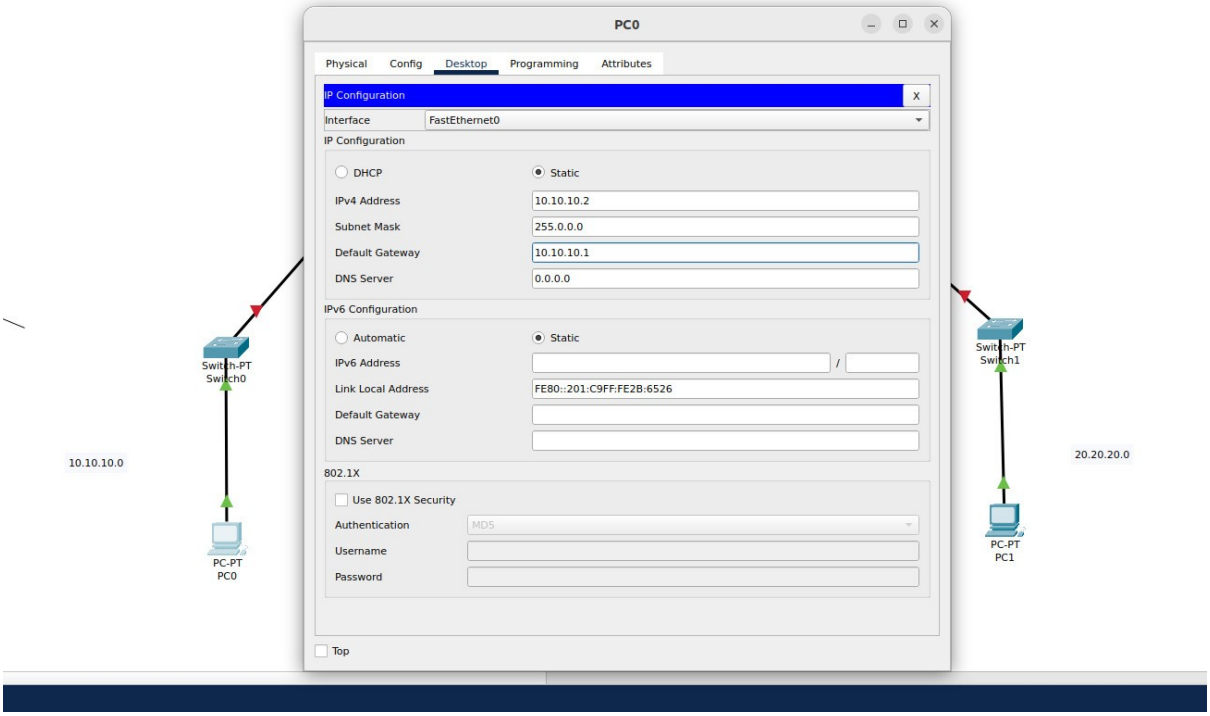
Step1: Arrange the components as shown in the picture.



Step2: Connect the pc,server and router using “Automatically Choose Connection Type” cable.

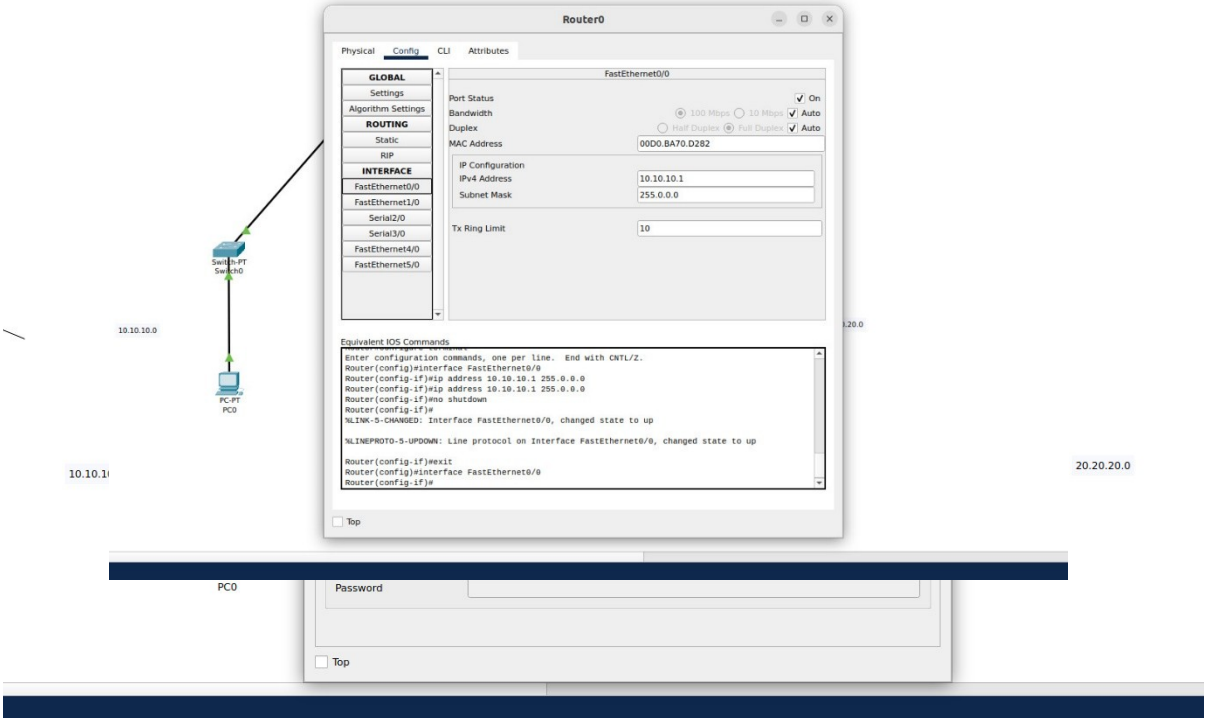


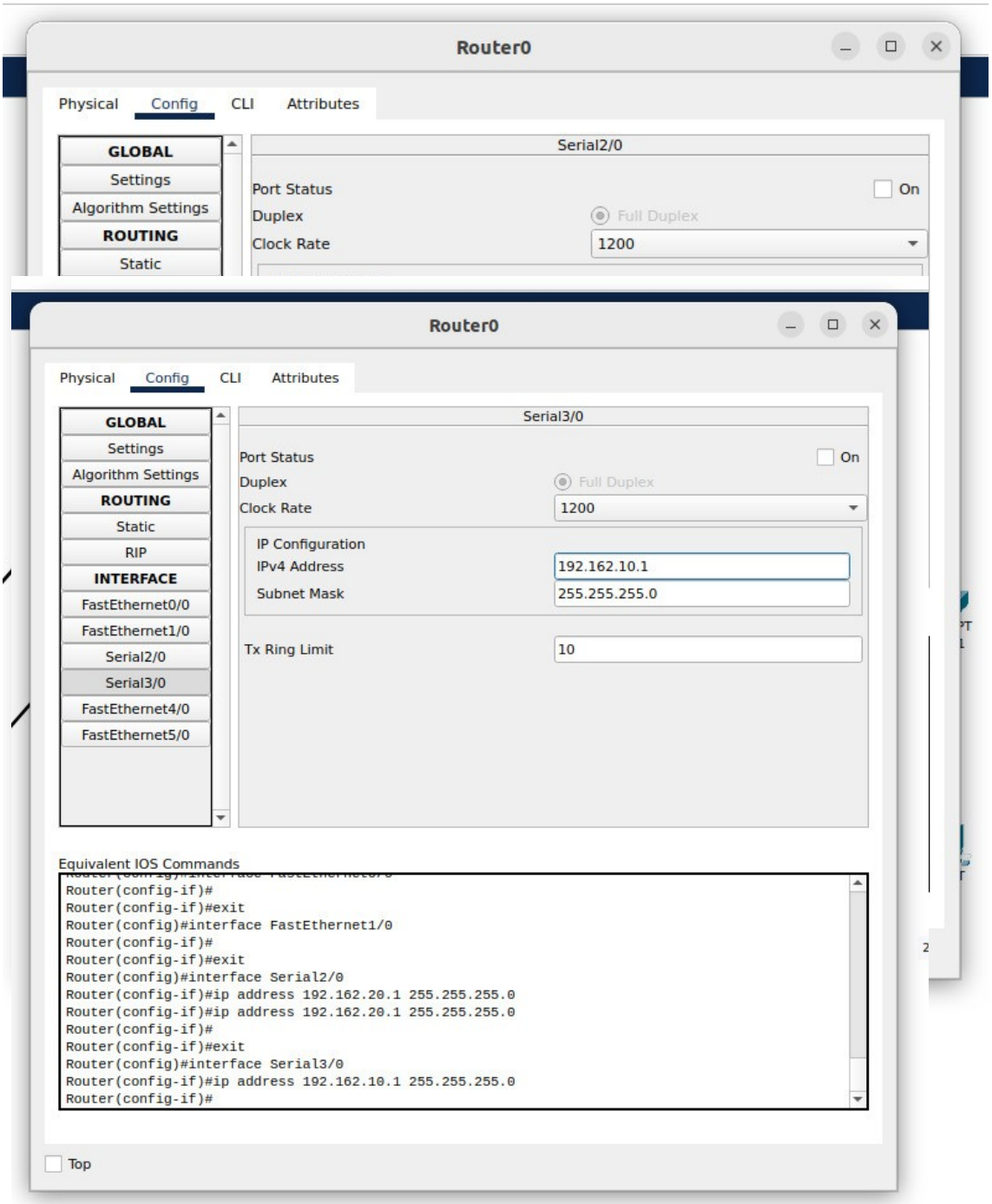
Step3: Configure the pc0 as shown in the picture.



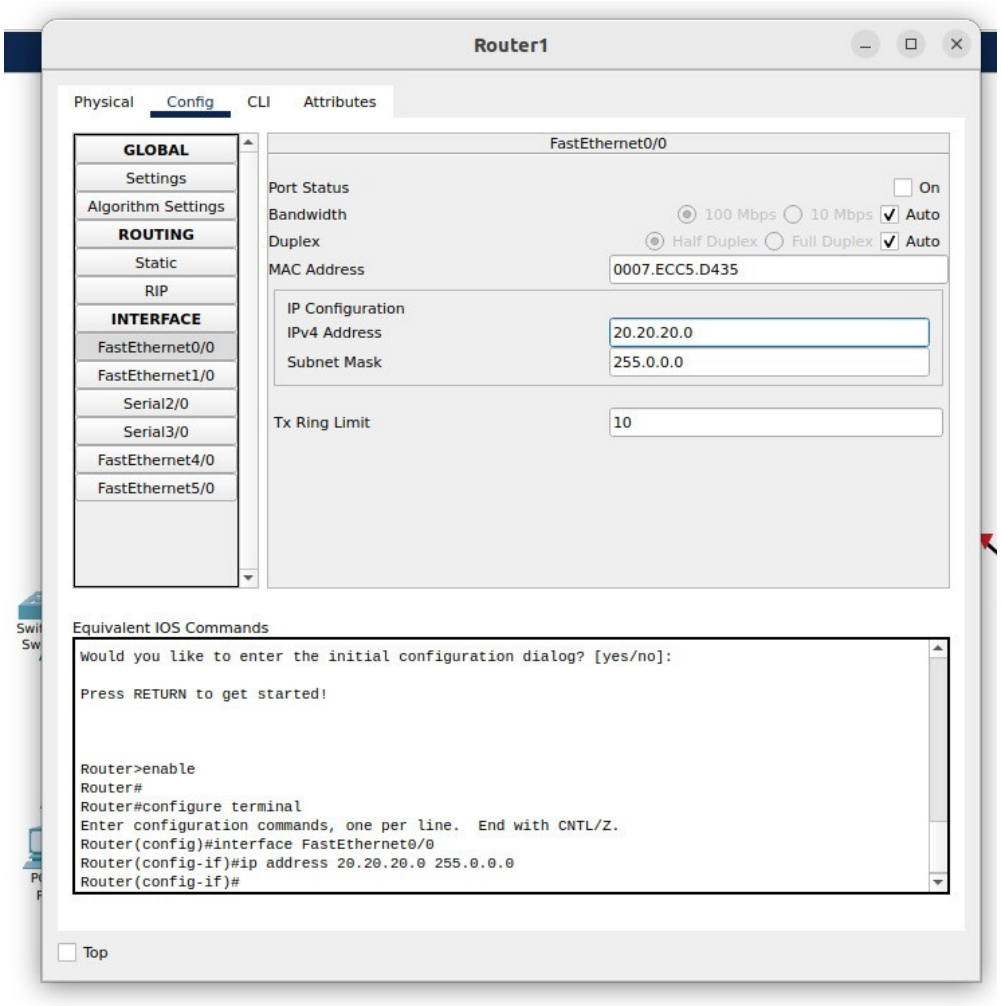
Step4: Configure the pc1 as shown in the picture.

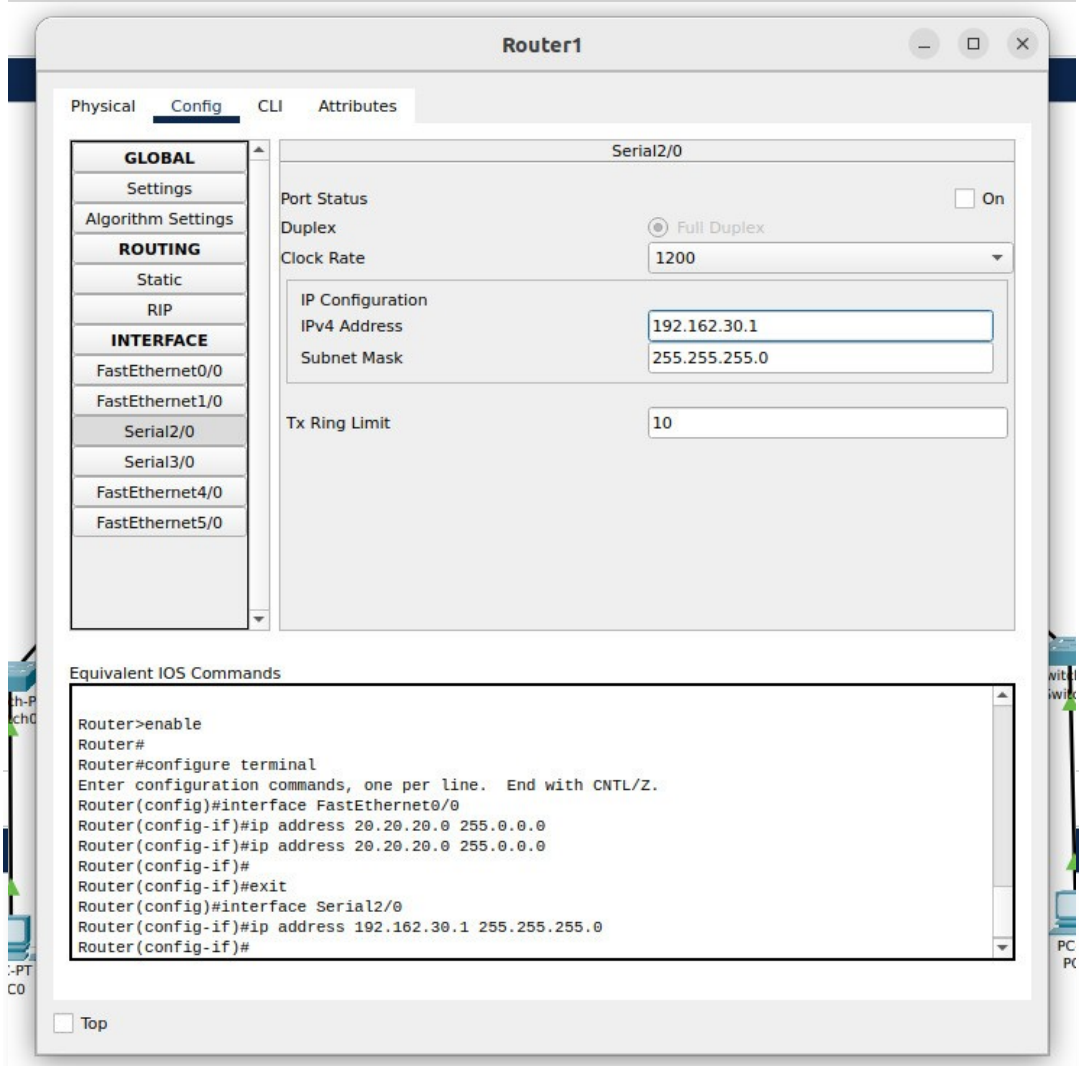
Step5: Follow all the steps as shown in the picture in router 0.

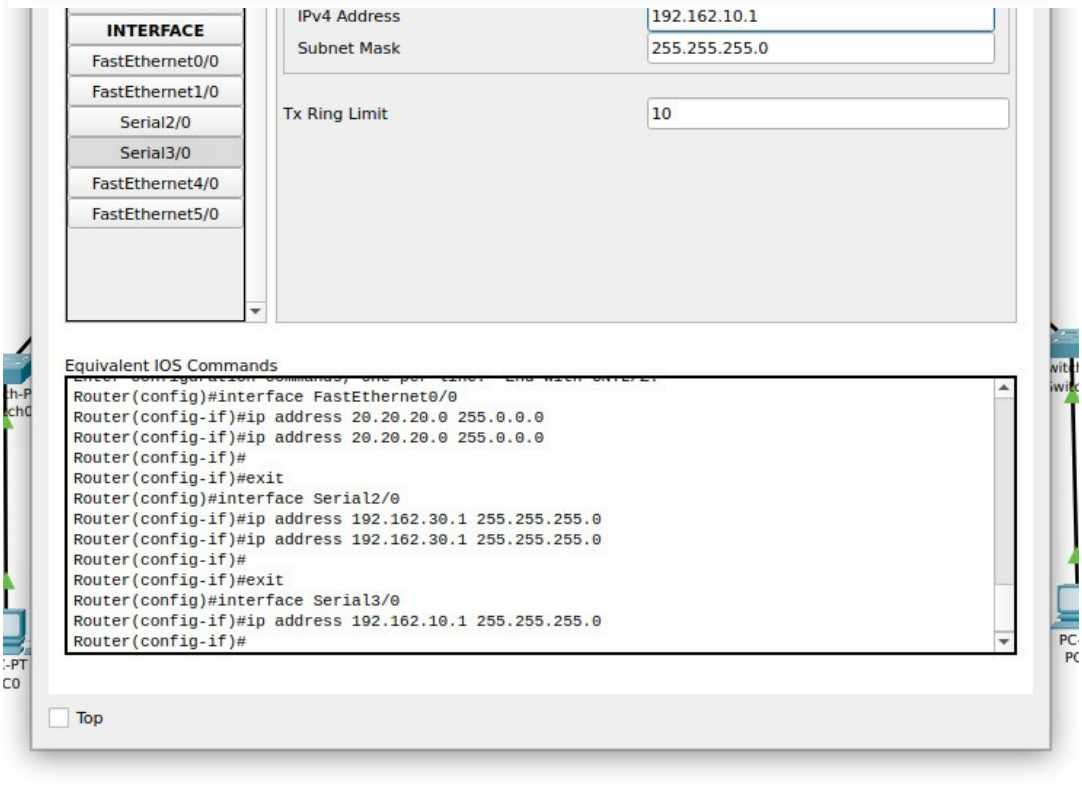



Router0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
Serial2/0
Port Status
On
Duplex
Full Duplex
Clock Rate
1200
Router0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial3/0
Port Status
On
Duplex
Full Duplex
Clock Rate
1200
IP Configuration
IPv4 Address
192.162.10.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet1/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 192.162.20.1 255.255.255.0
Router(config-if)#ip address 192.162.20.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 192.162.10.1 255.255.255.0
Router(config-if)#
Top

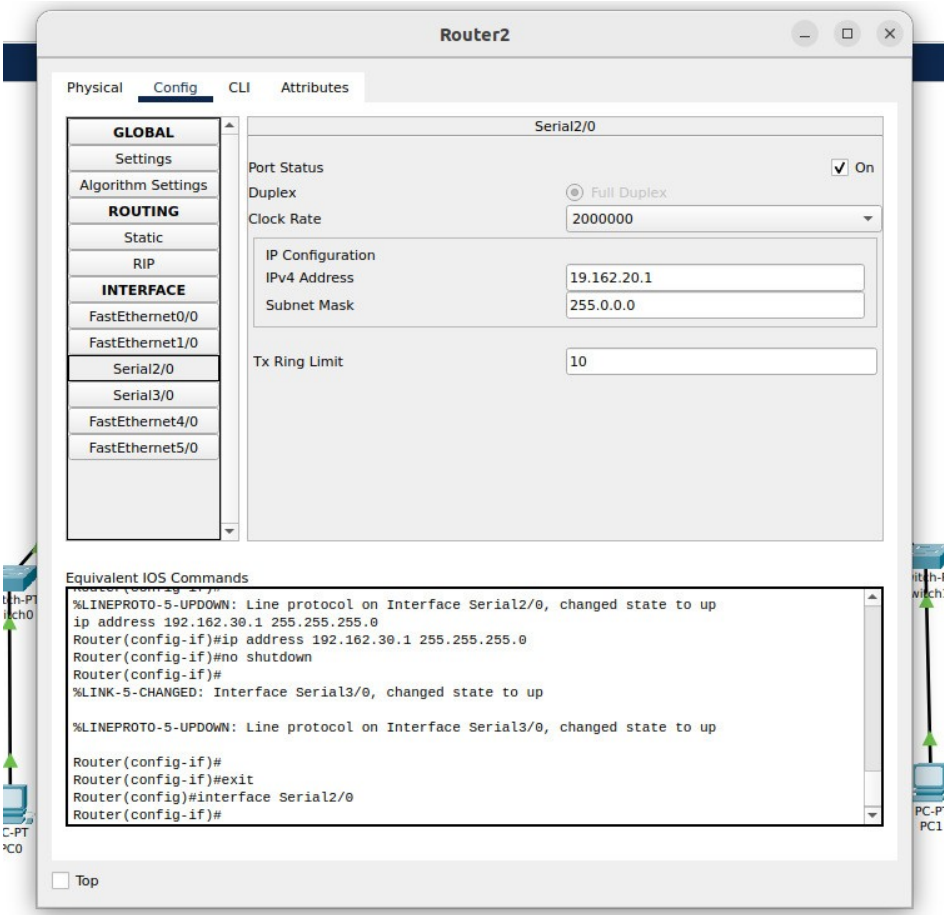
Step6: Follow all the steps as shown in the picture in router 1.

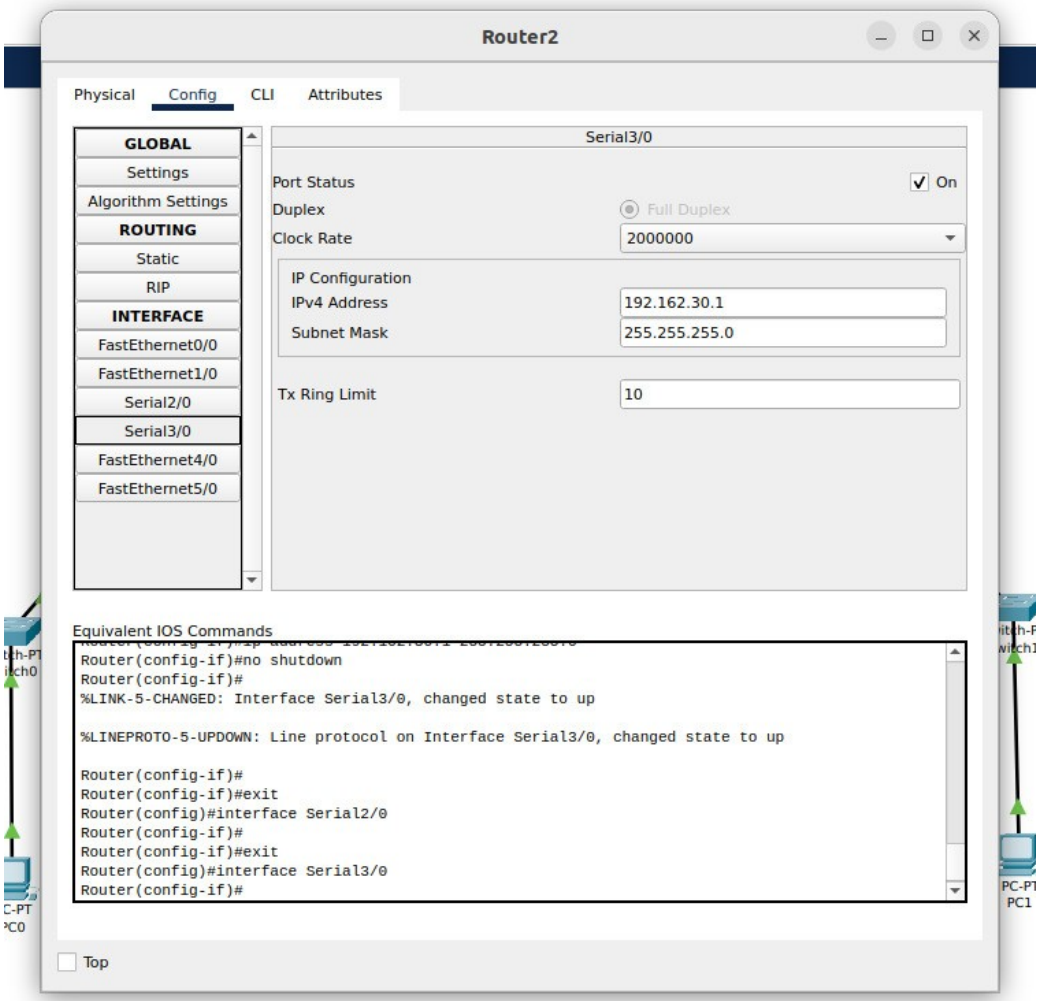


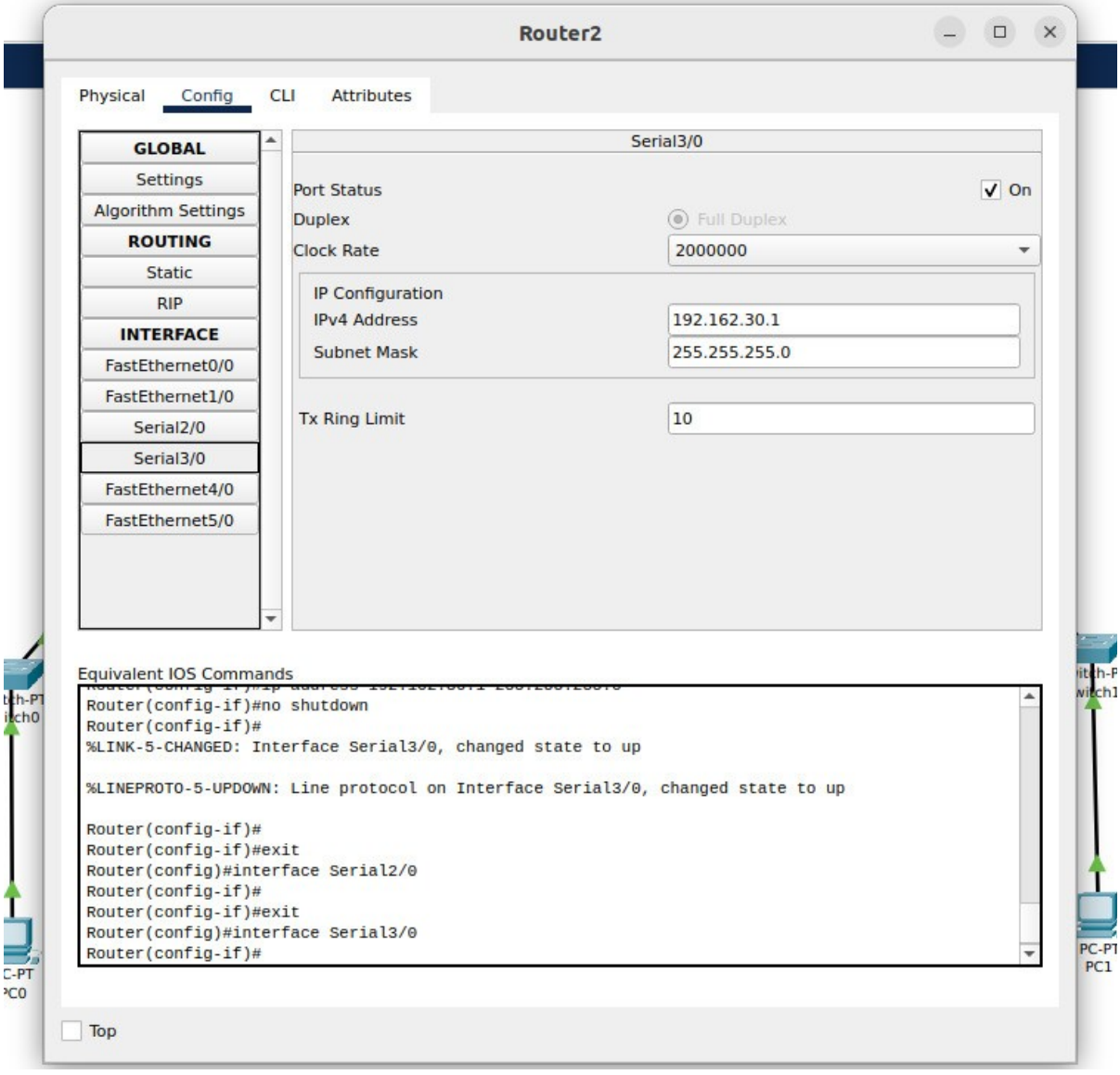

Router1
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial2/0
Port Status
On
Duplex
Full Duplex
Clock Rate
1200
IP Configuration
IPv4 Address
192.162.30.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 20.20.20.0 255.0.0.0
Router(config-if)#ip address 20.20.20.0 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 192.162.30.1 255.255.255.0
Router(config-if)#
Top


INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
IPv4 Address
192.162.10.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 20.20.20.0 255.0.0.0
Router(config-if)#ip address 20.20.20.0 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 192.162.30.1 255.255.255.0
Router(config-if)#ip address 192.162.30.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 192.162.10.1 255.255.255.0
Router(config-if)#
Top

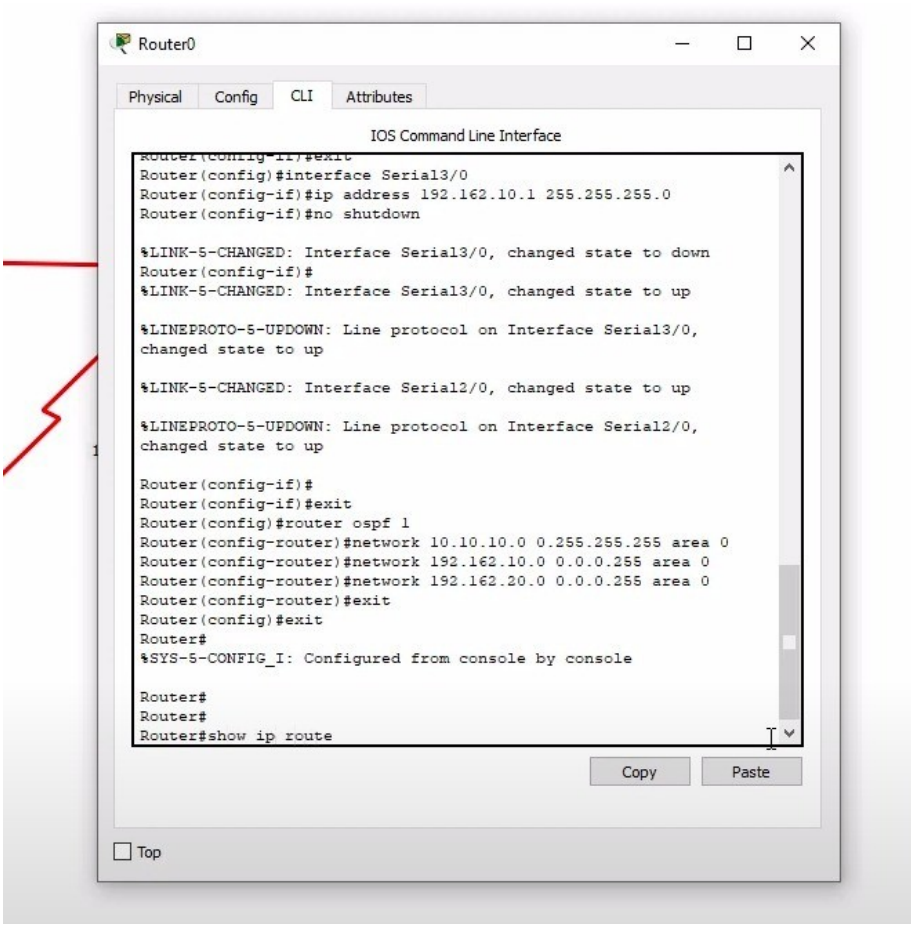
Step7: Follow all the steps as shown in the picture in router 2.




Router2
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial3/0
Port Status
On
Duplex
Full Duplex
Clock Rate
2000000
IP Configuration
IPv4 Address
192.162.30.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#no shutdown
Router(config-if)#
%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-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Top


Router2
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial3/0
Port Status
On
Duplex
Full Duplex
Clock Rate
2000000
IP Configuration
IPv4 Address
192.162.30.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#no shutdown
Router(config-if)#
%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-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
Top

Step8: Follow all the steps as shown in the picture in router 0.



This **Follow**

Comment:

 # exit

 # router ospf 1

 # network 10.10.10.0 0.255.255.255 area 0

 # network 192.162.10.0 0.0.0.255 area 0

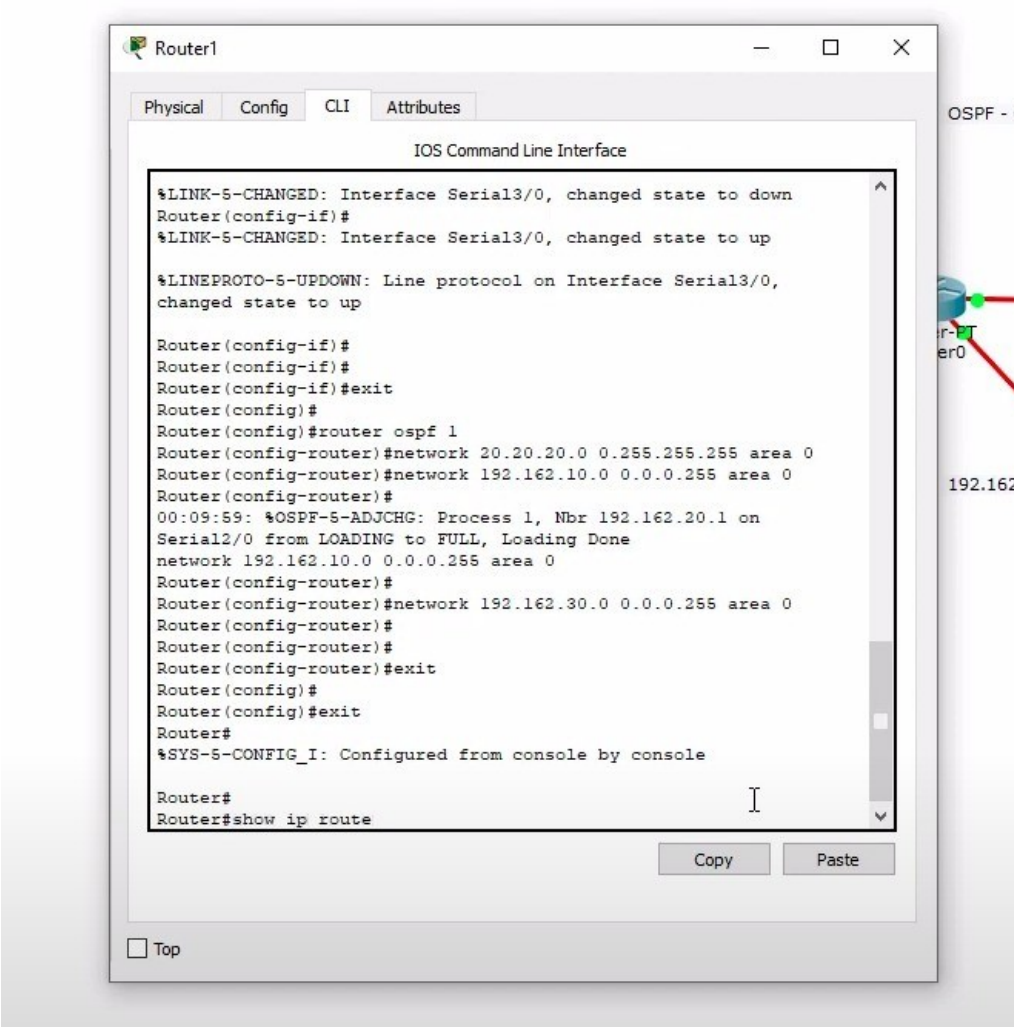
 # network 192.162.20.0 0.0.0.255 area 0

 # exit

 # exit

 # show ip route

Step9: Follow all the steps as shown in the picture in router 1.



Follow This Comment:

 # exit

 # router ospf 1

 # network 20.20.20.0 0.255.255.255 area 0

 # network 192.162.10.0 0.0.0.255 area 0

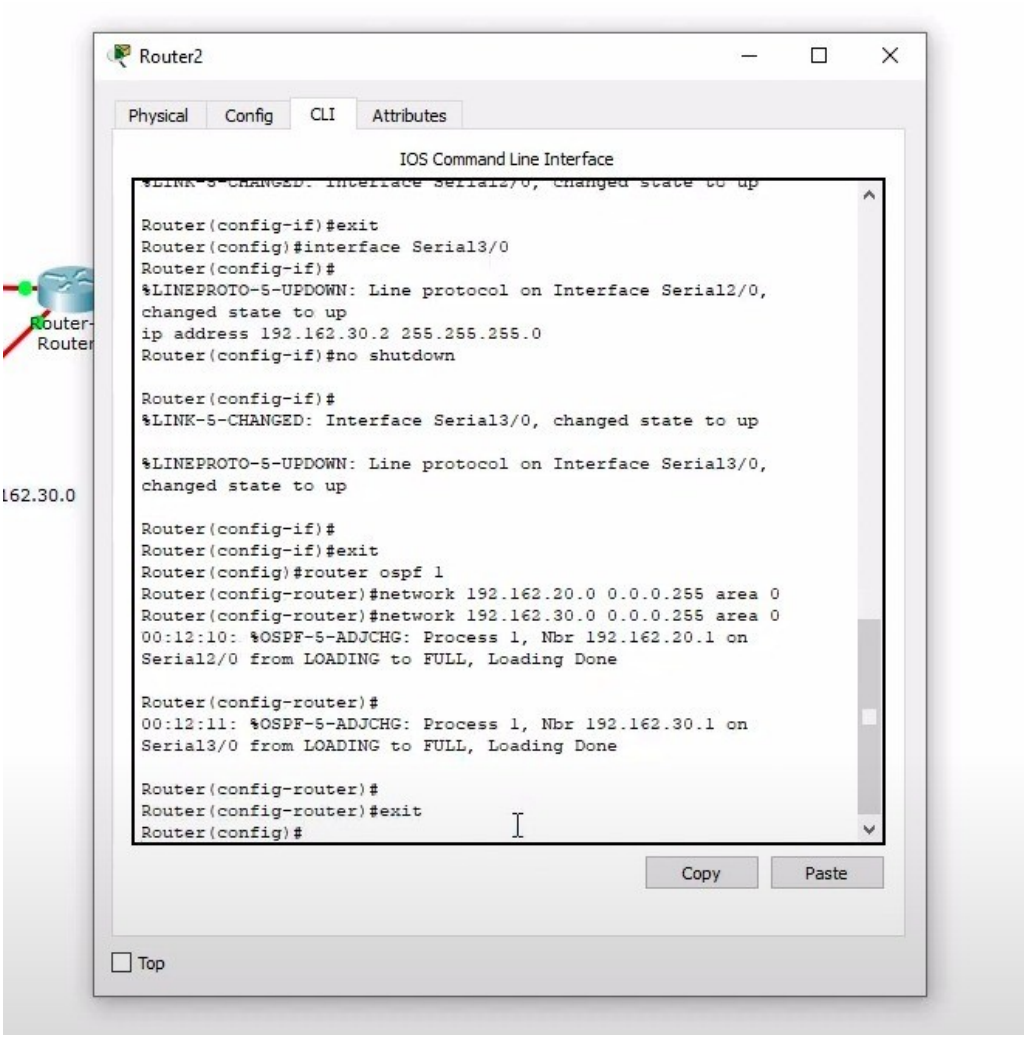
 # network 192.162.30.0 0.0.0.255 area 0

 # exit

 # exit

 # show ip route

Step10: Follow all the steps as shown in the picture in router 2.



Follow This Comment:

 # exit

 # router ospf 1

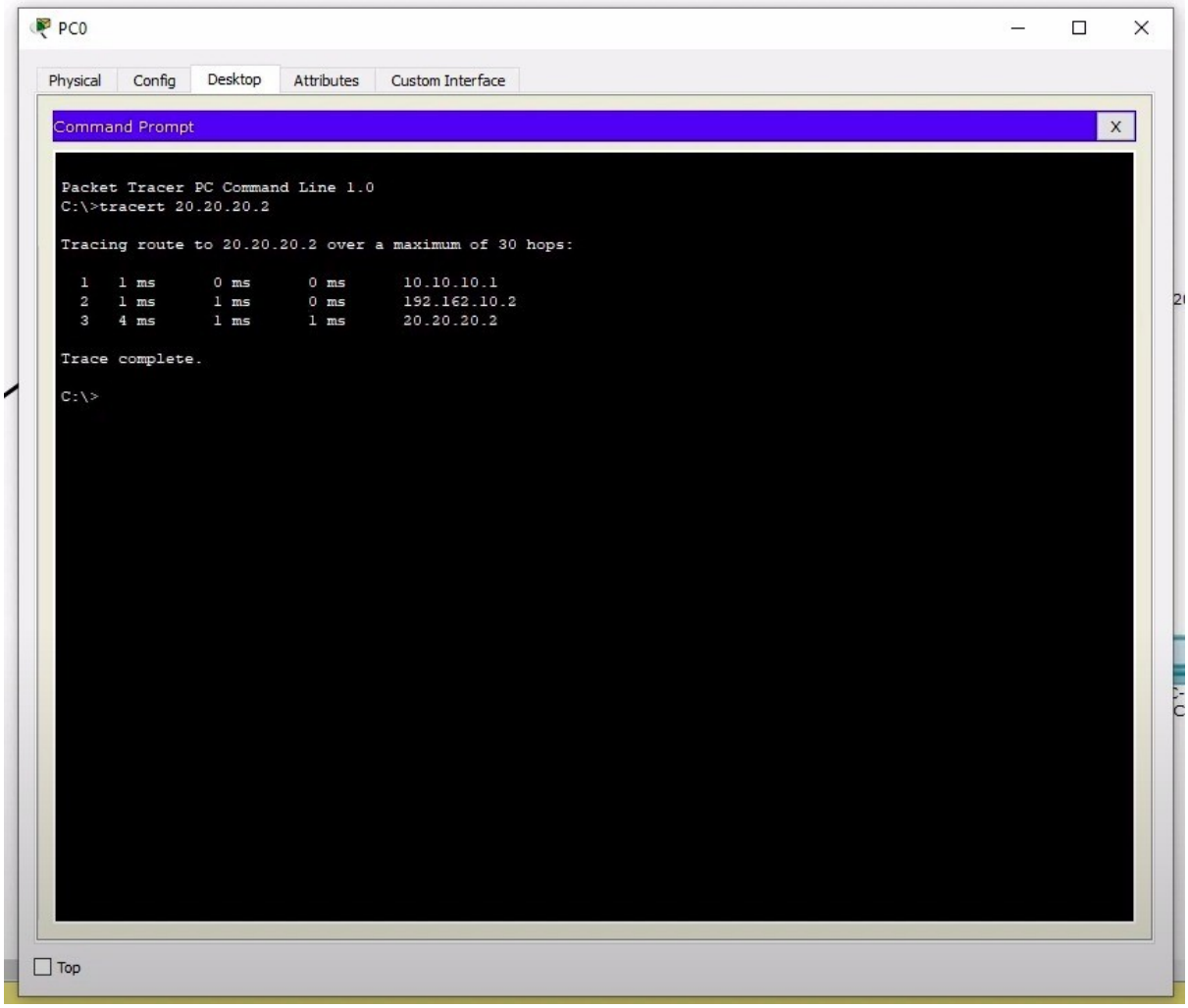
 # network 192.162.20.0 0.0.0.255 area 0

 # network 192.162.30.0 0.0.0.255 area 0

 # exit

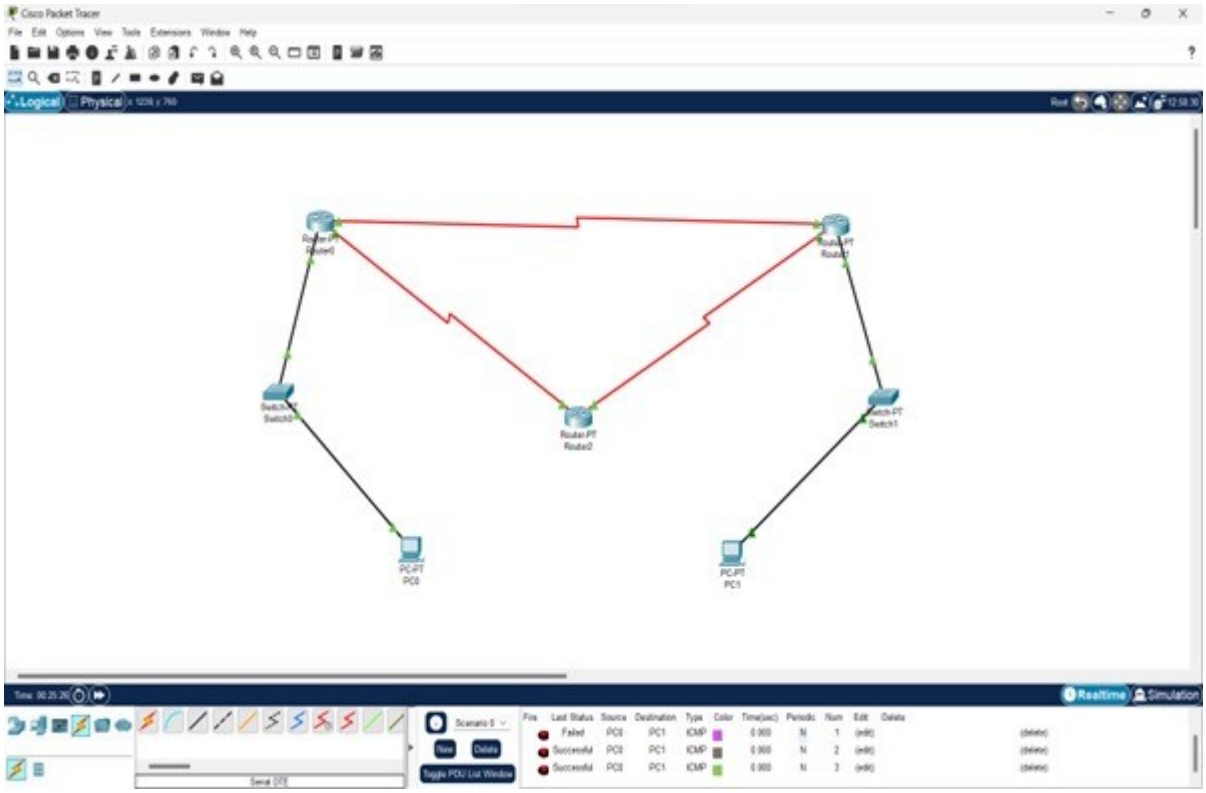
 # exit

Step11: Follow all the steps as shown in the picture in terminal.



Follow This Comment:

tracert 20.20.20.2



It should be something like this.