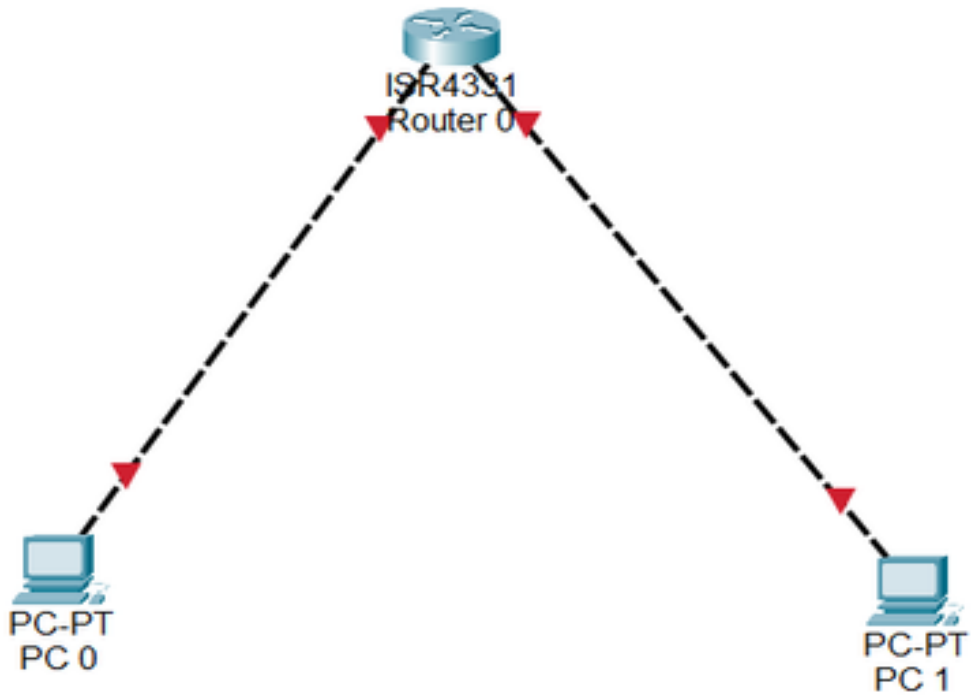
COMPUTER NETWORKS LAB 3

STEPS TAKEN:

STEP 1:

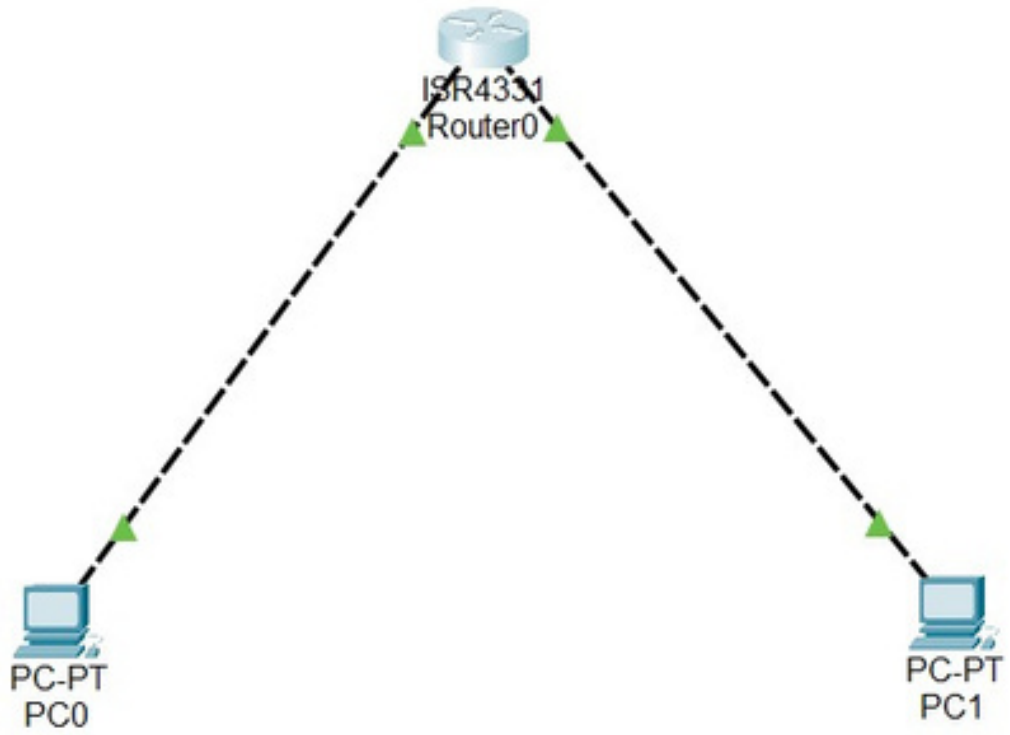


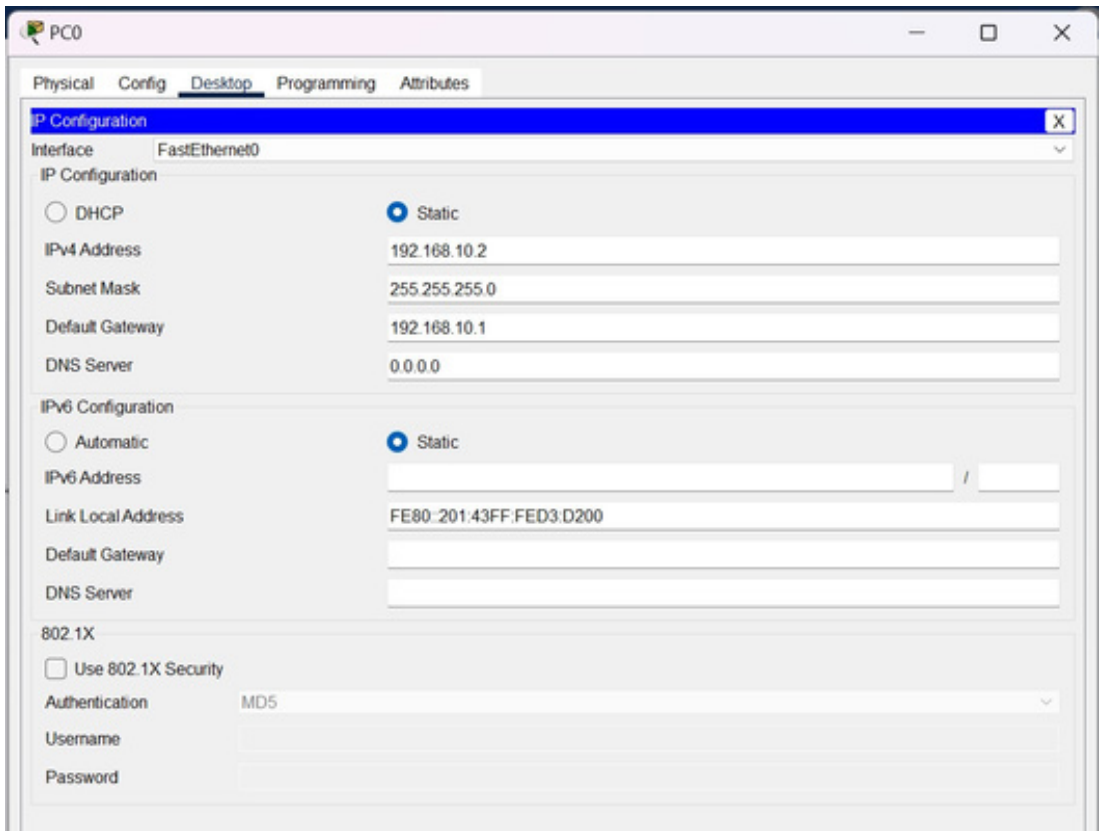
Dragged a ISR4331 Switch and 2 PCs on to the canvas and used Copper Cross-over cable to connect each PC's port FastEthernet0/0 to the router's GigabitEthernet0/0/0 and 0/0/1 respectively.

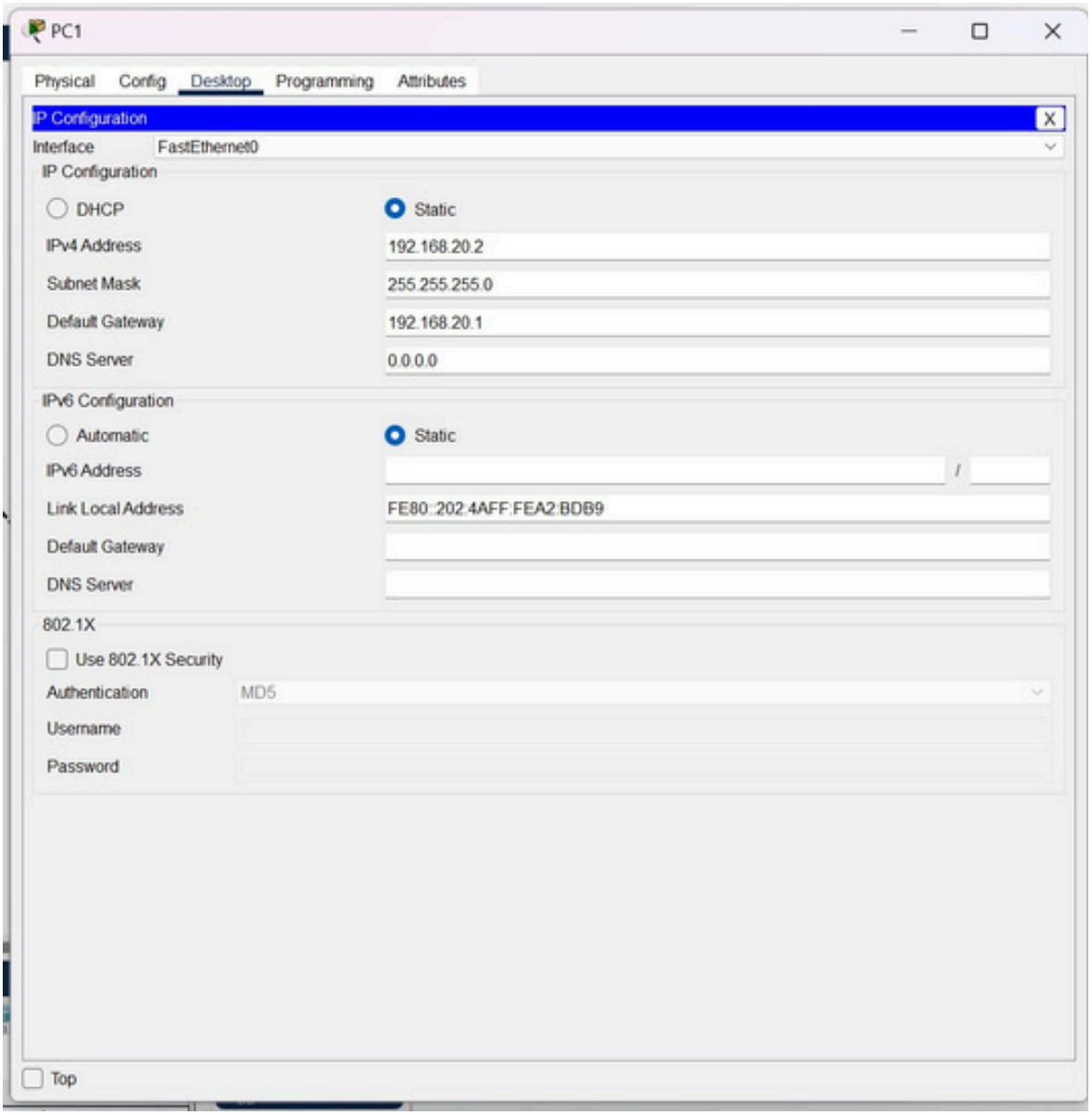
STEP 2:

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shutdown

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)#interface GigabitEthernet0/0/0
Router(config)#
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/1
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#no shutdown

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
```

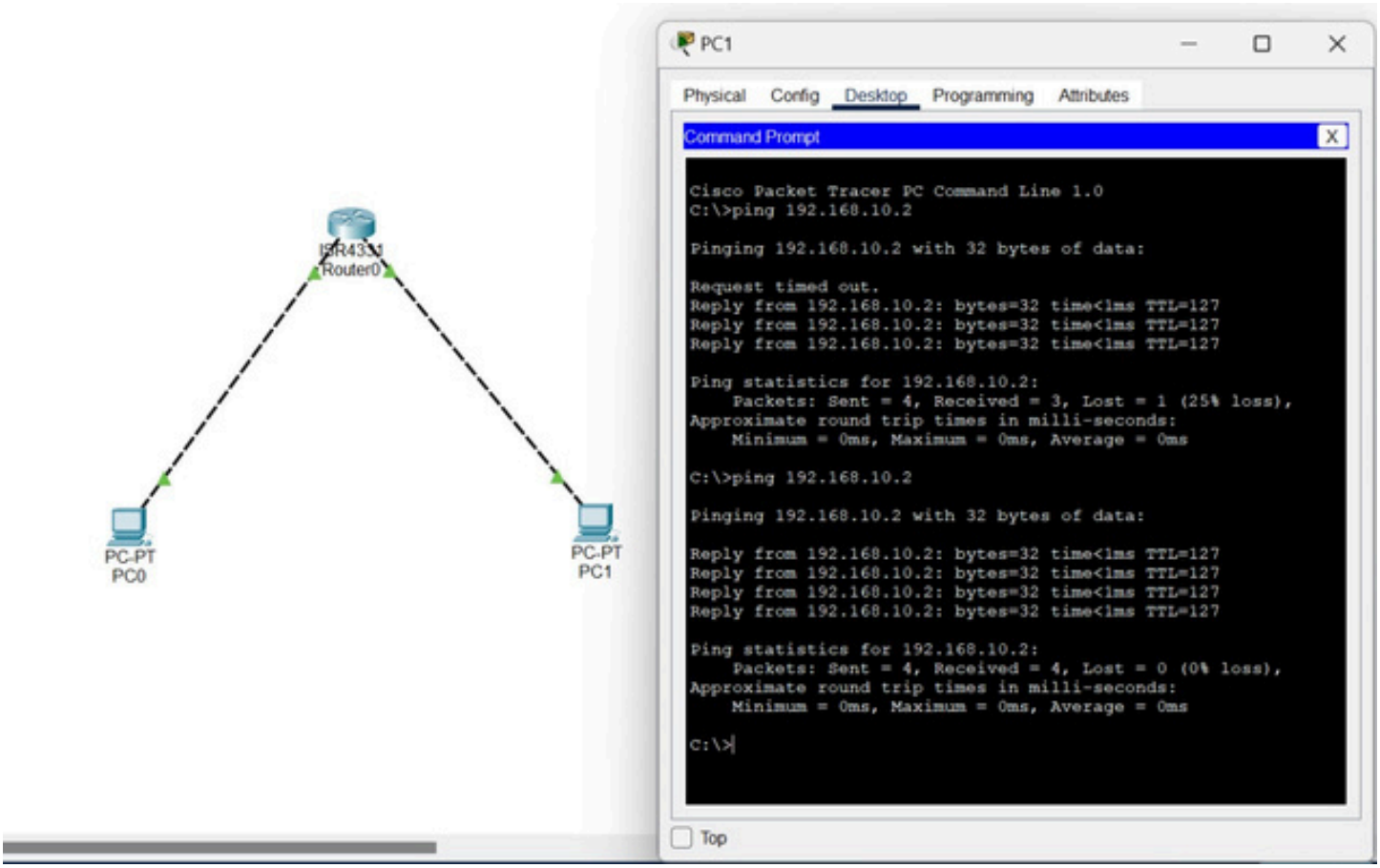
After typing the above commands on the Router, the connection is successful indicated by the green triangles on the cables below.




PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
192.168.10.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.10.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::201:43FF:FED3:D200
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password



Pinging from PC1 to PC0:



STEP 3:

BASIC ROUTER SETUP

Setting passwords/authentication to the router

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname GATEWAY
GATEWAY(config)#enable secret cisco
GATEWAY(config)#service password-encryption
GATEWAY(config)#line console 0
GATEWAY(config-line)#password cisco
GATEWAY(config-line)#login
GATEWAY(config-line)#logging synchronous
GATEWAY(config-line)#exec-timeout 2 45
GATEWAY(config-line)#history size 10
```