NETWORK AND NETWORKING DEVICES WORKSHOP(ITITC19)

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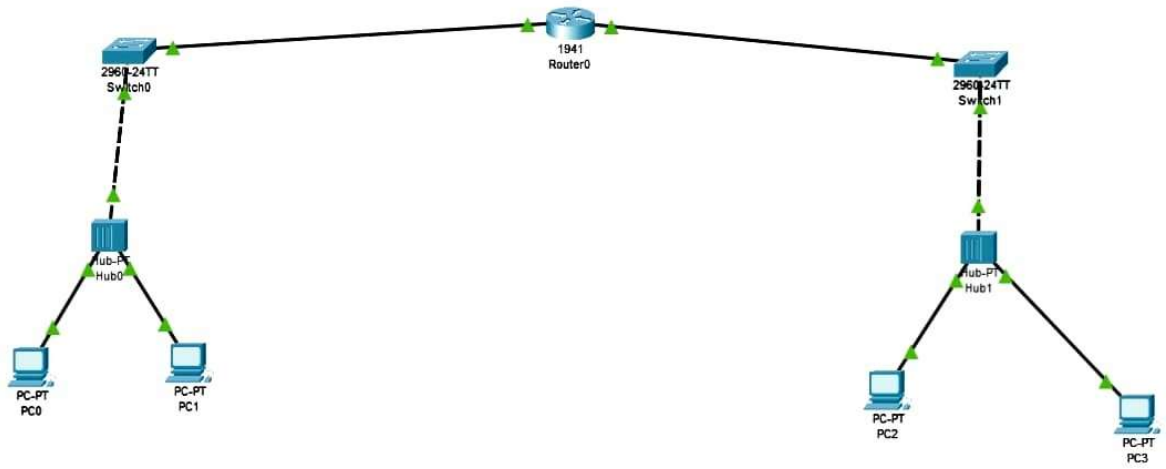
CLASS: IT SEC-1

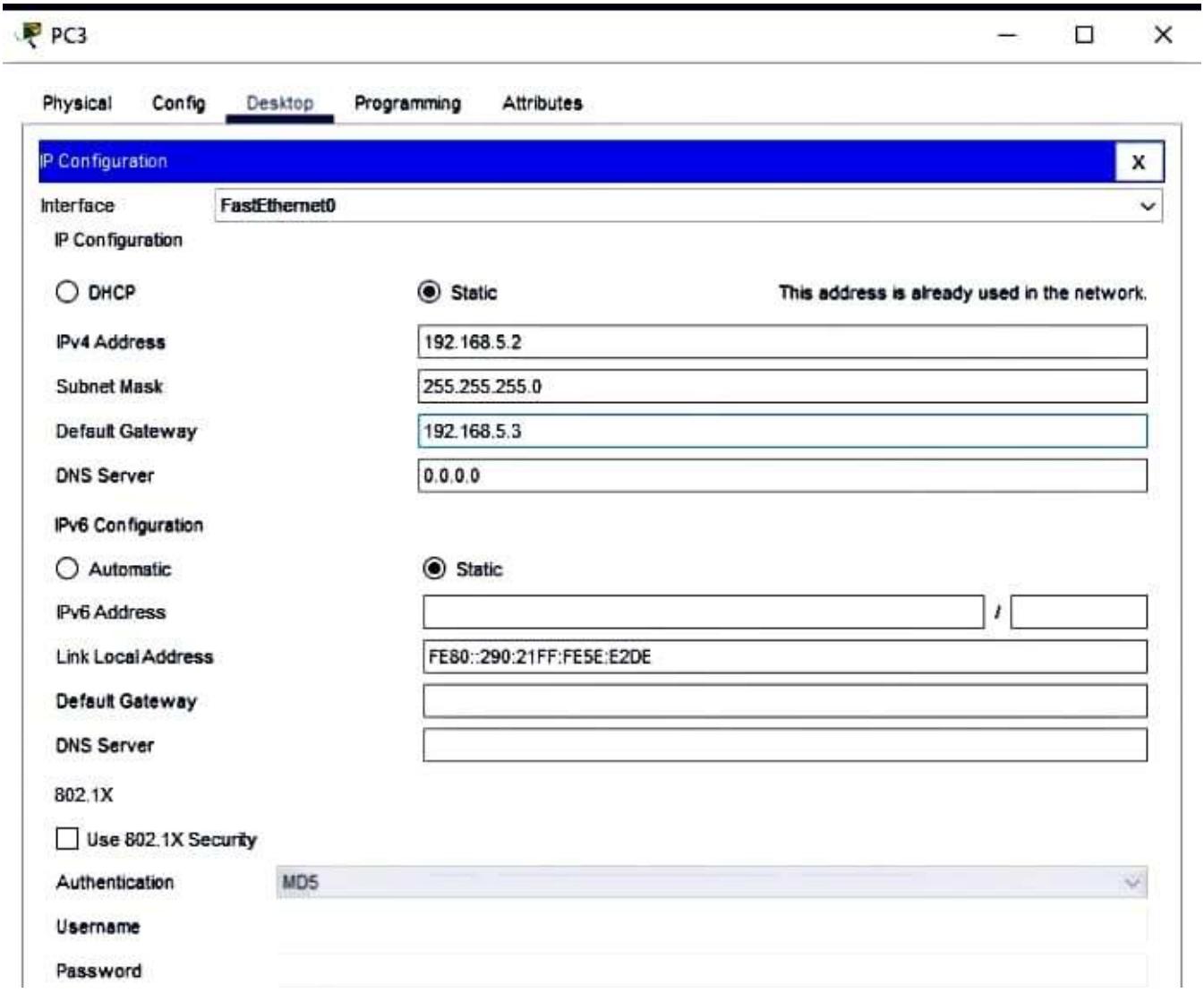
ROLL NO: 2021UIT3043

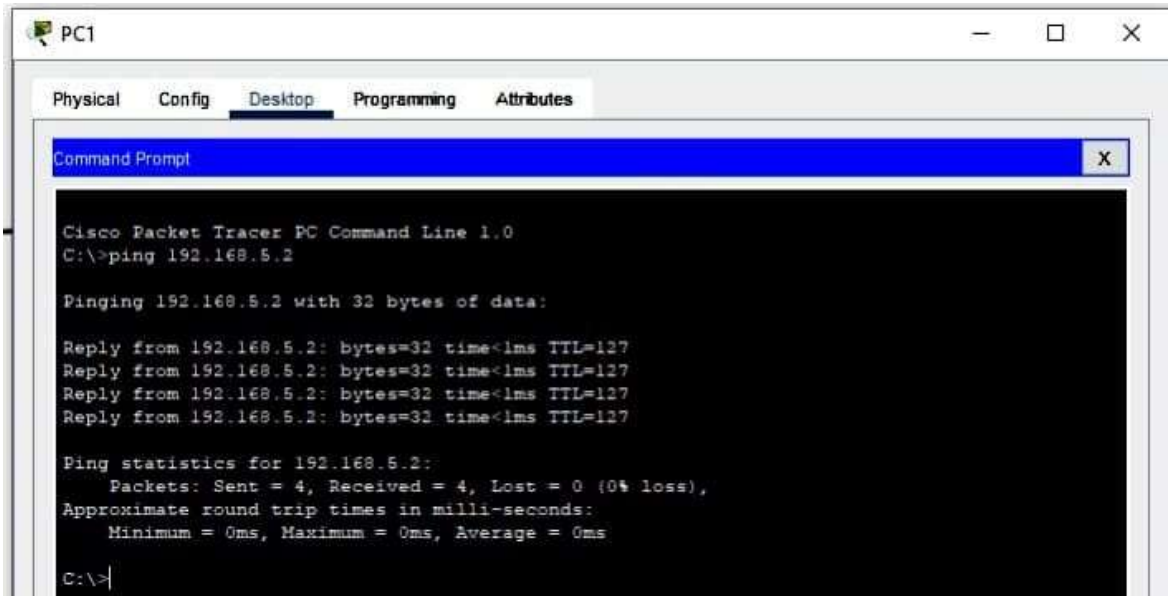
1)Establish a straight LAN configuration using:

- **Hub**
- **Switch**
- **Router**

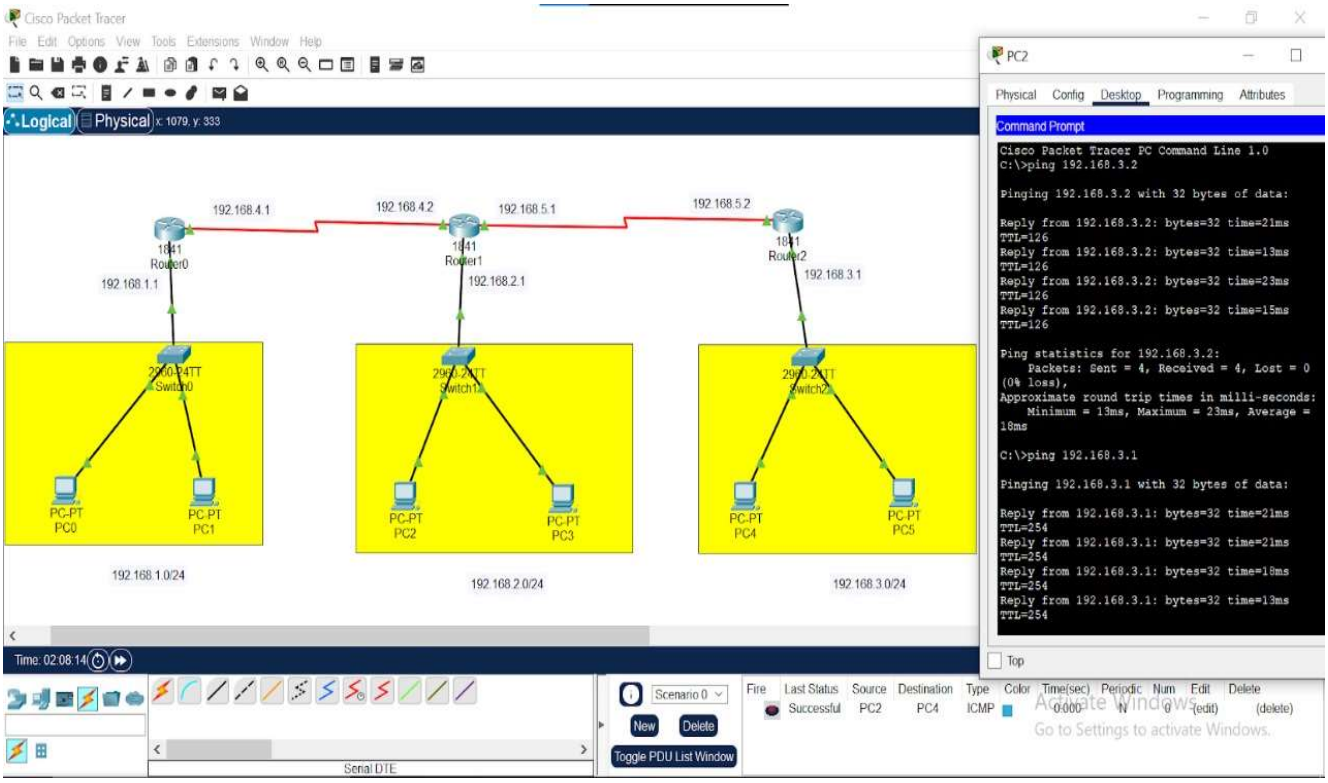


Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC2	PC3	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC1	PC2	ICMP		0.000	N	2	(edit)	(delete)

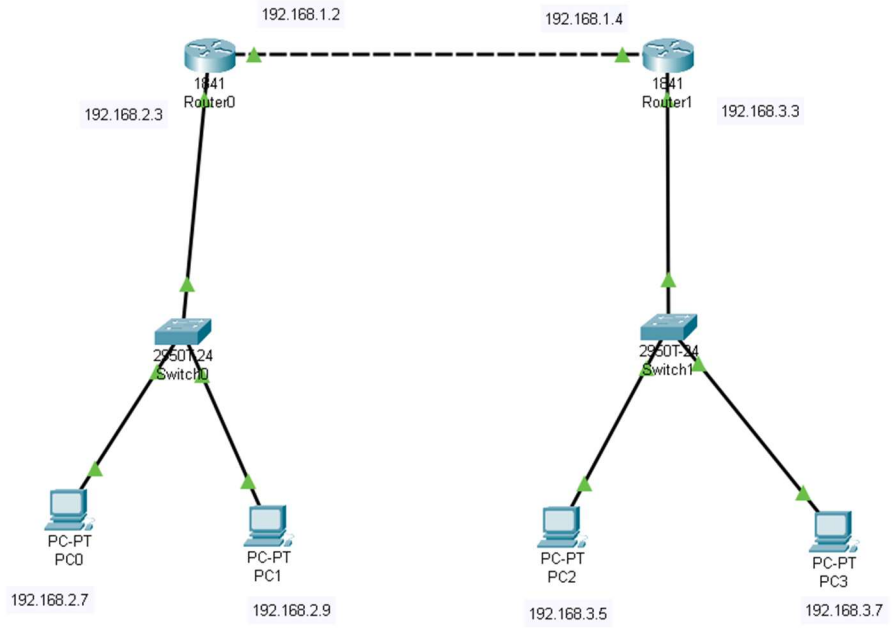

PC3
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
This address is already used in the network.
IPv4 Address
192.168.5.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.5.3
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address
FE80::290:21FF:FE5E:E2DE
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password


PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.5.2
Pinging 192.168.5.2 with 32 bytes of data:
Reply from 192.168.5.2: bytes=32 time<1ms TTL=127
Reply from 192.168.5.2: bytes=32 time<1ms TTL=127
Reply from 192.168.5.2: bytes=32 time<1ms TTL=127
Reply from 192.168.5.2: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.5.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>

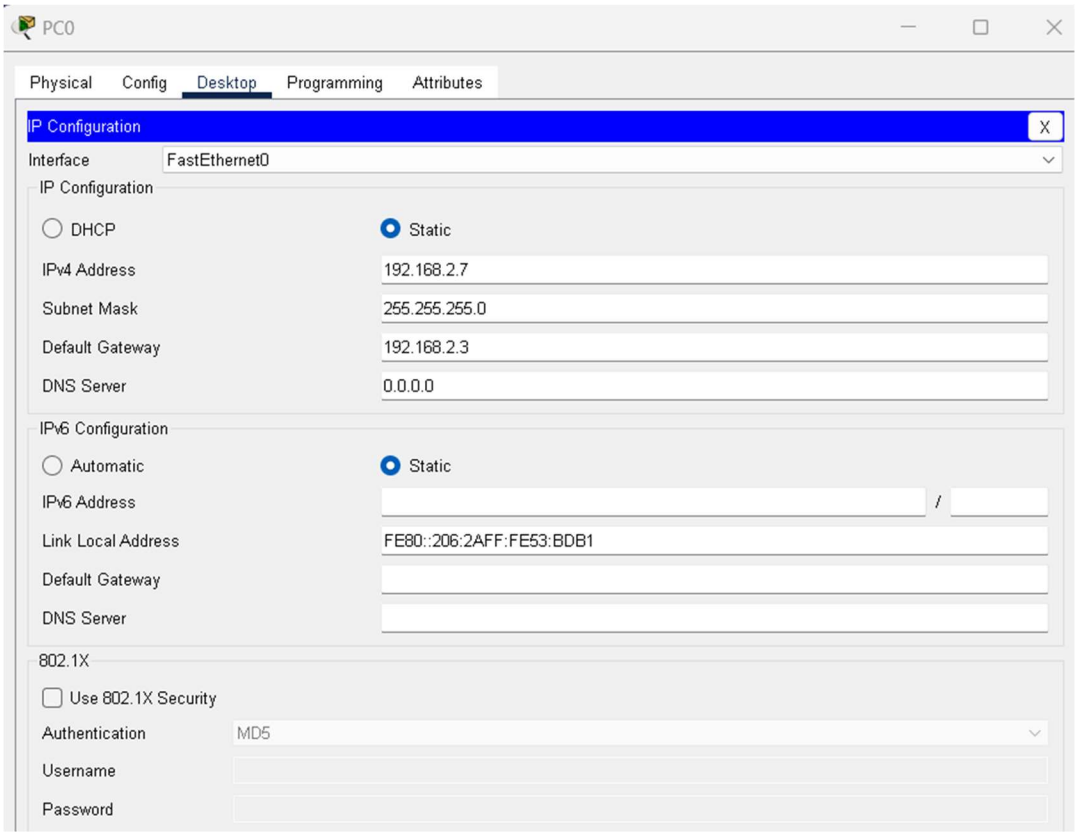
2)Document a basic network using 3 routers in a LAN configuration



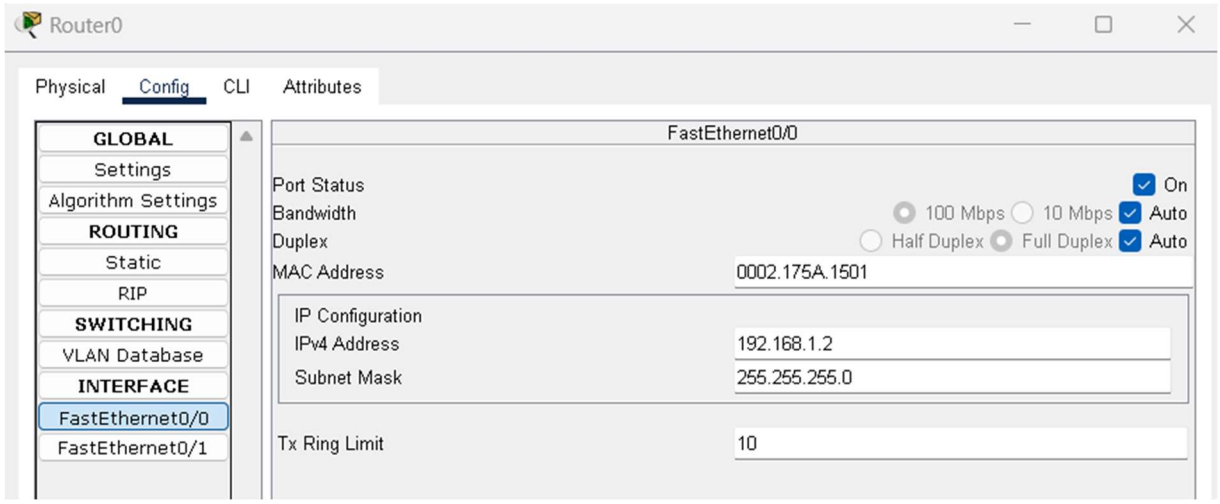
3)STATIC ROUTING PROTOCOL

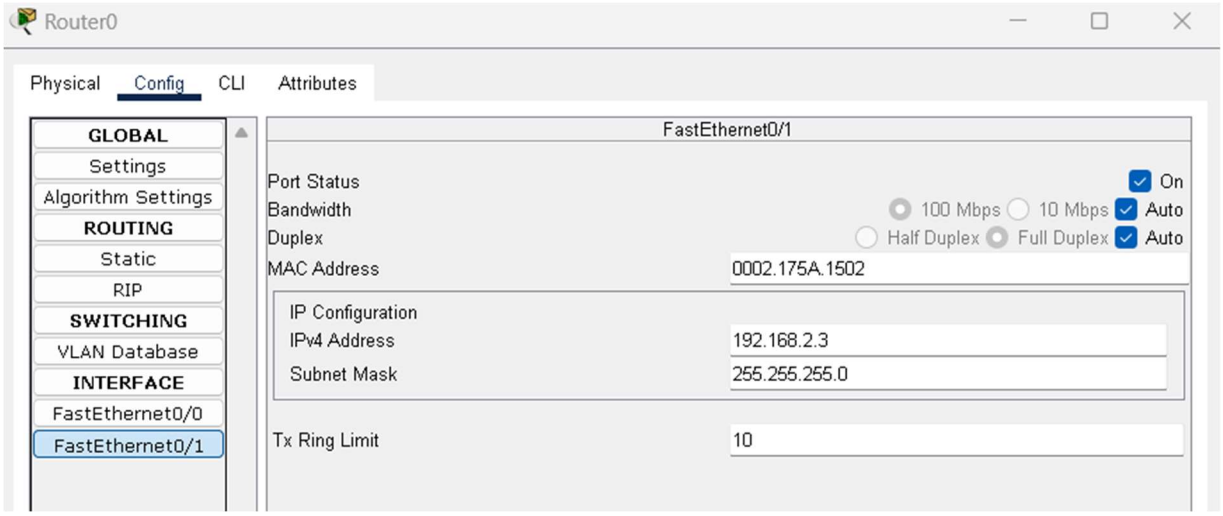


Step 1).Configure IP adress and subnet mask and default gateway for all PC's

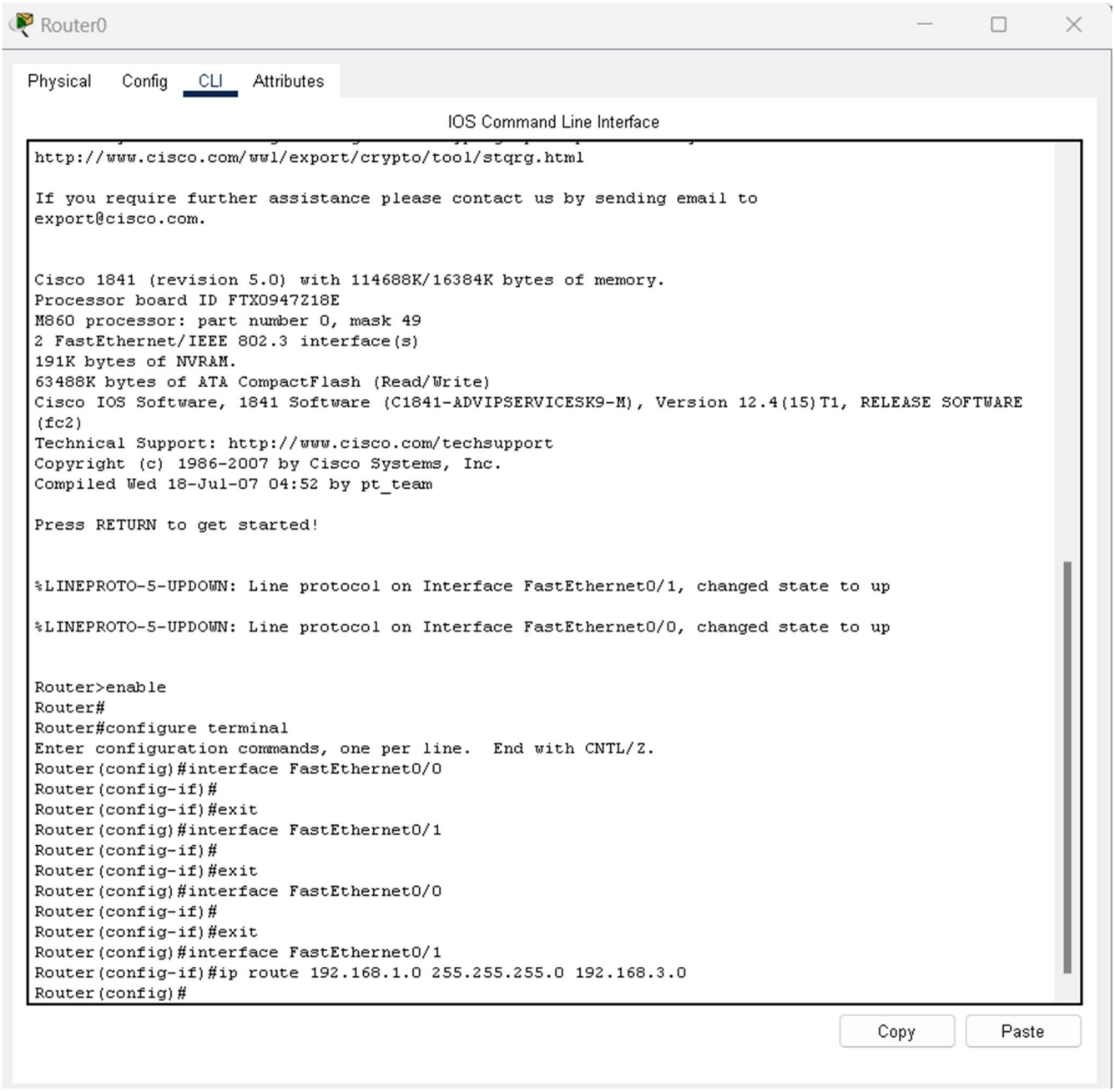


Step2).Configure routers with IP adress and subnet mask

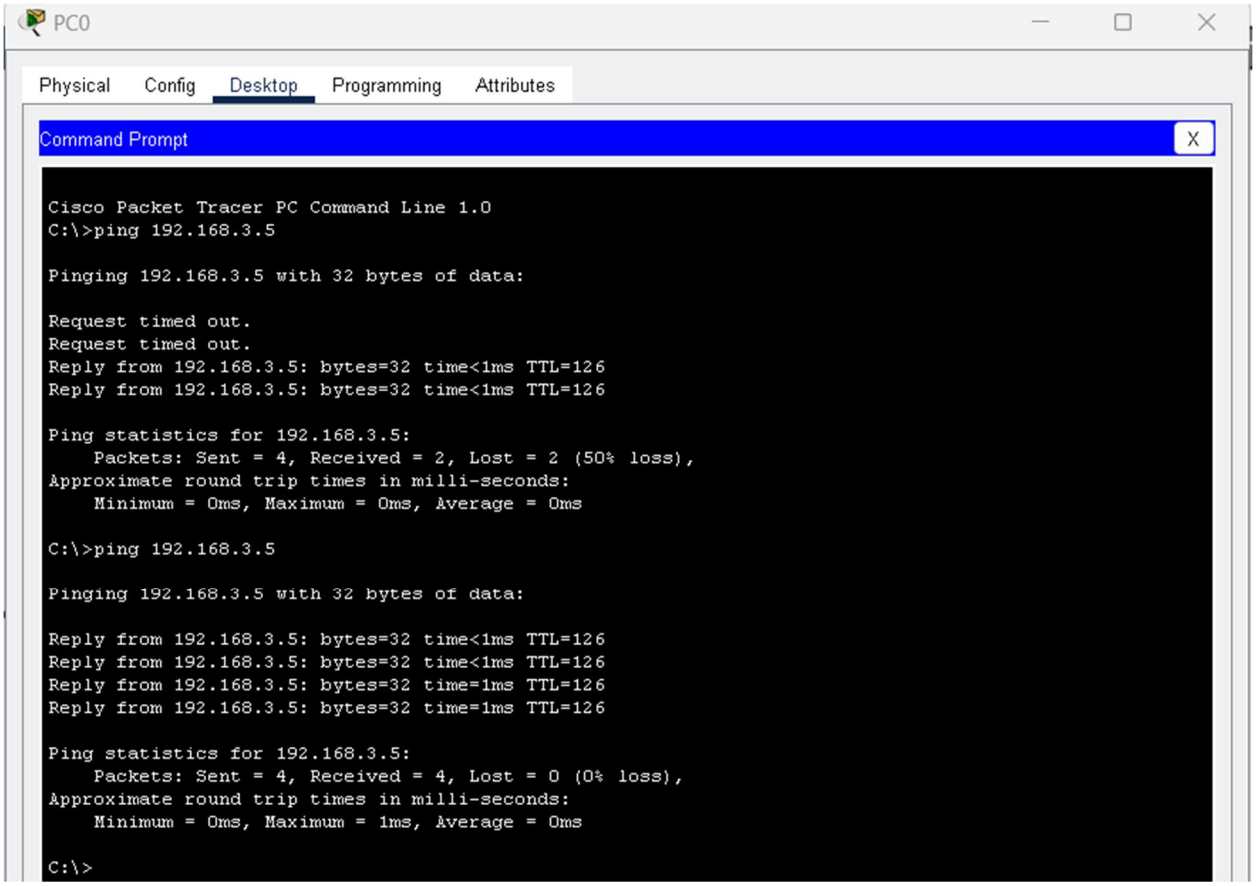




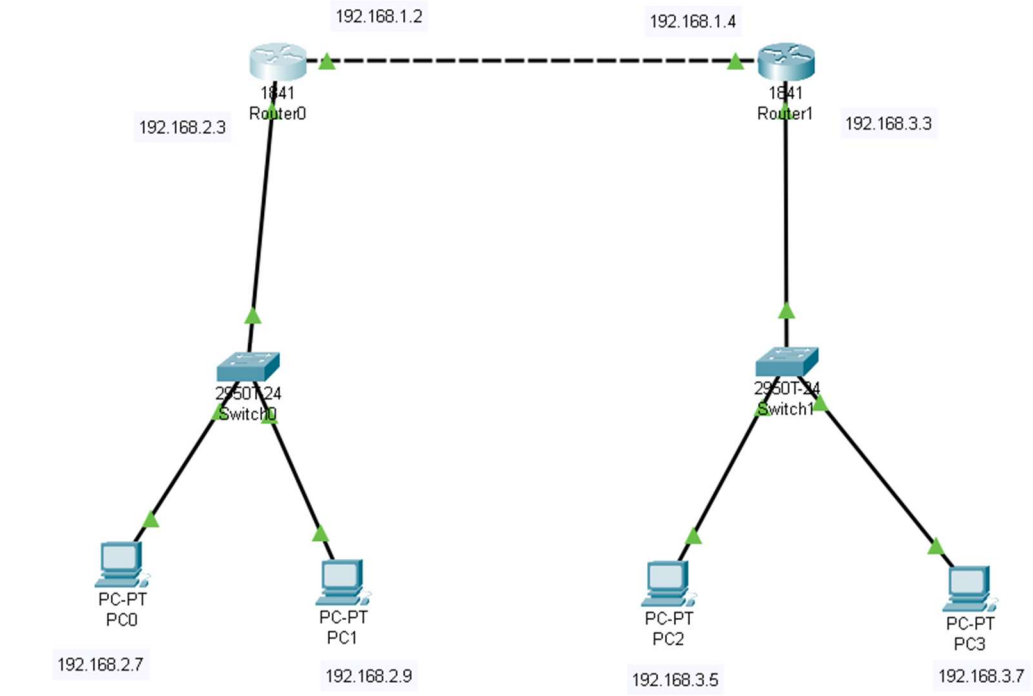
Step3). Assign the routes to the routers.



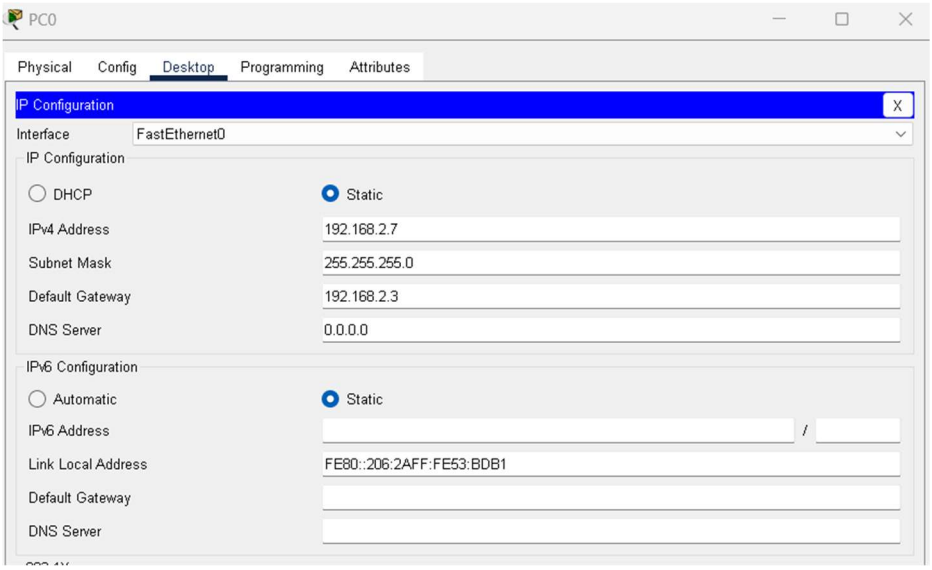
Step 4). TEST Ping in different network



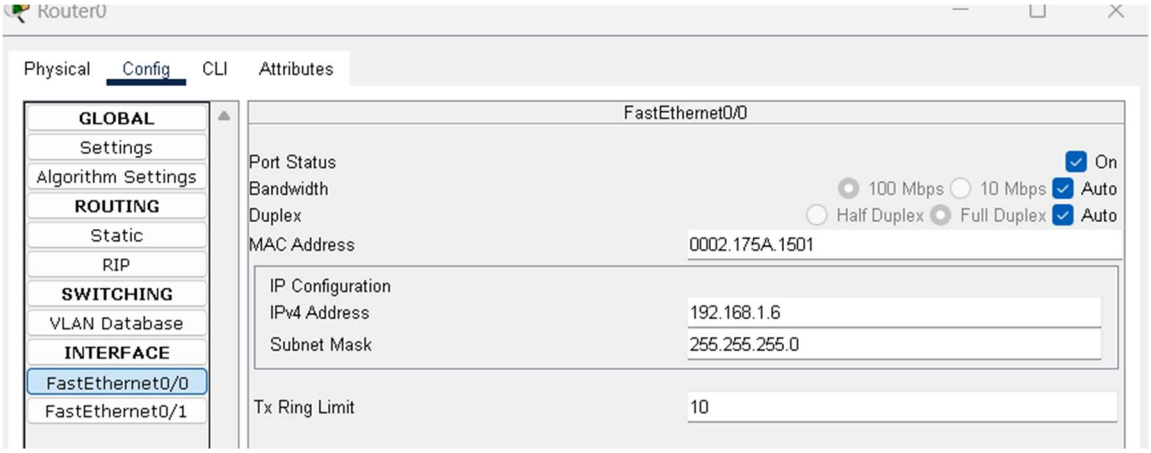
4)DYNAMIC ROUTING PROTOCOL USING (RIP)

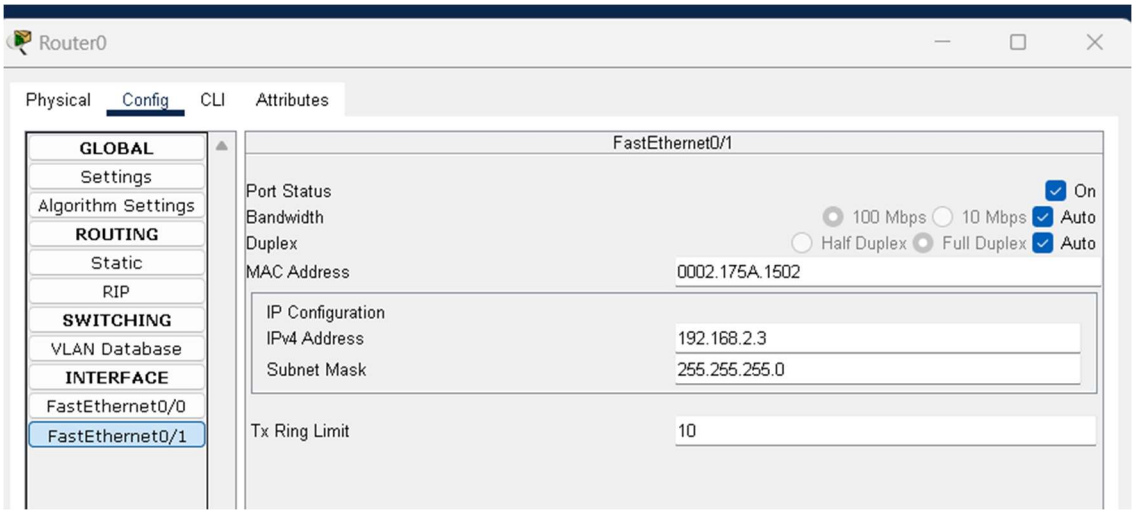


1.Configure IP adress and subnet mask and default gateway for all PC's

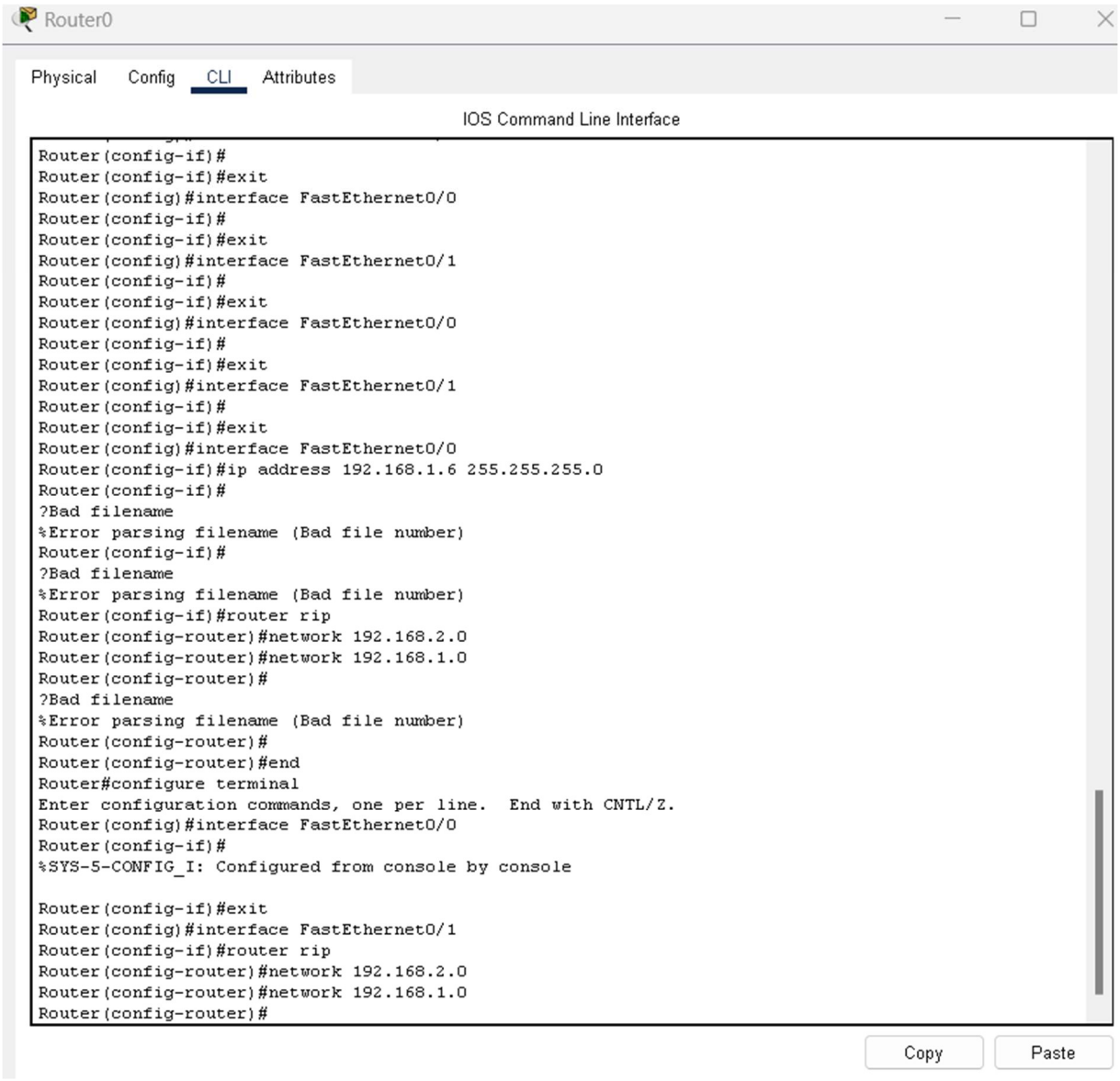


2.Configure routers with IP adress and subnet mask

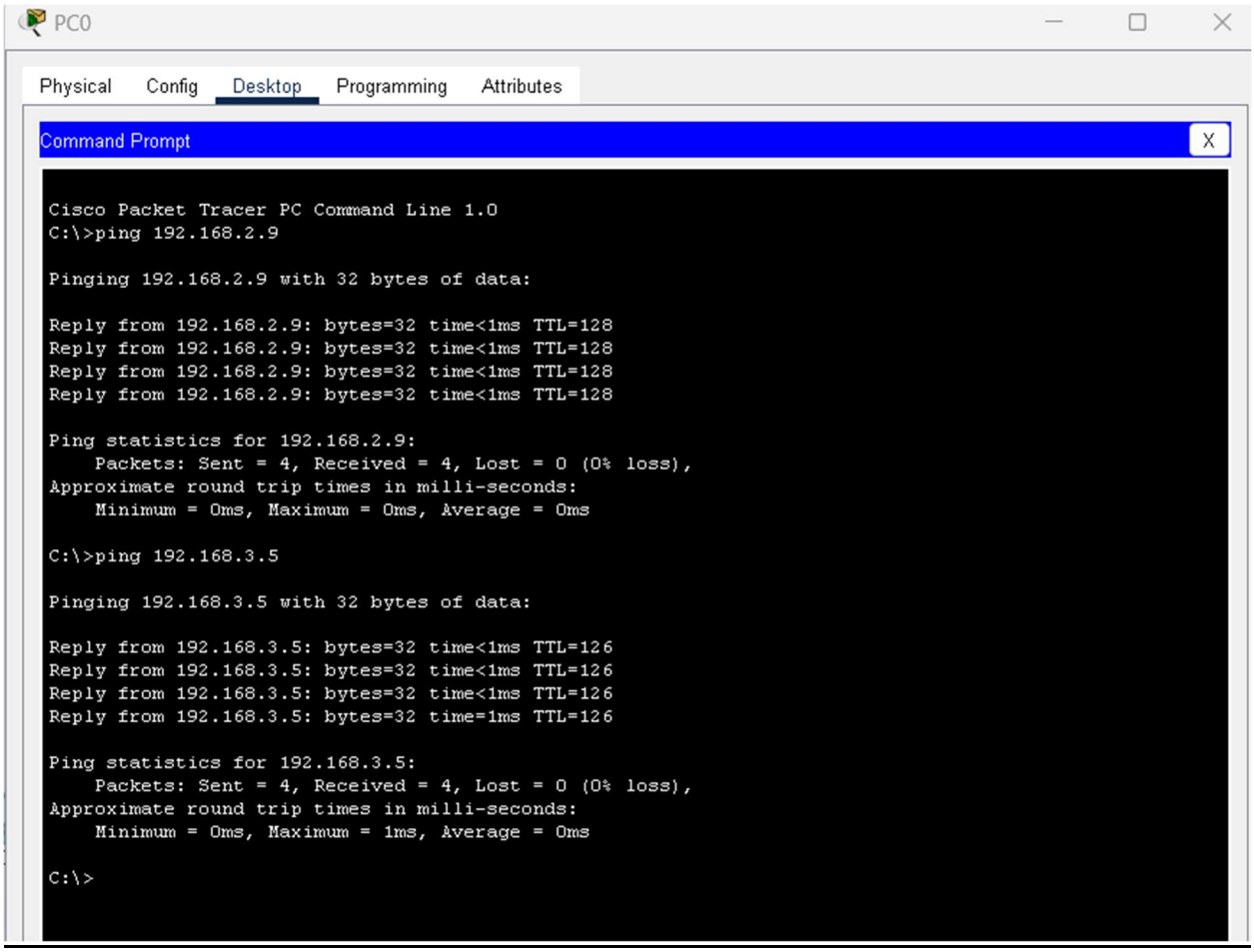




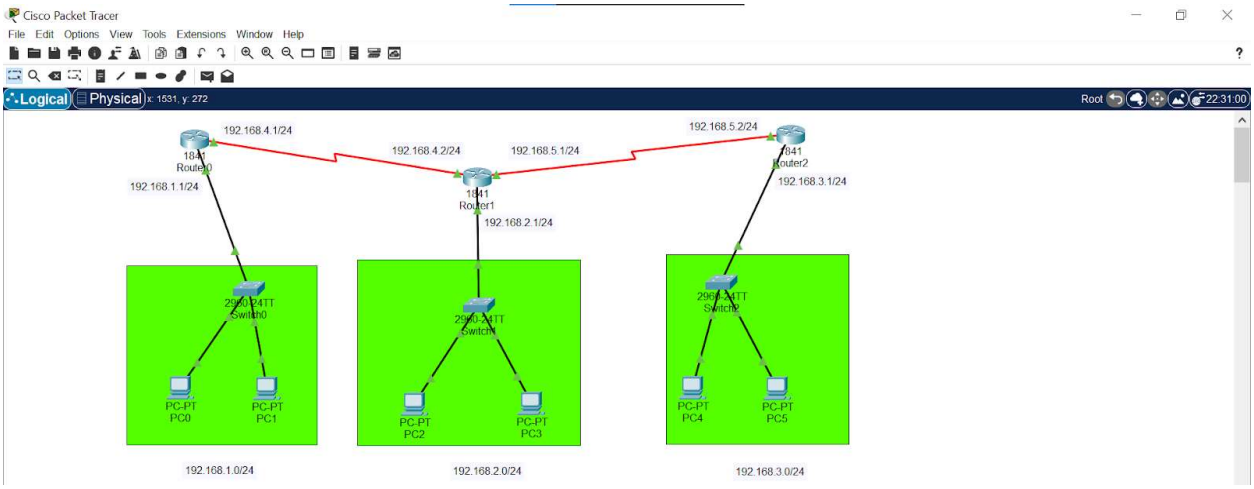
3.Configure RIP routing algorithm for routers



4. TEST (1)Ping in same network (2)Ping in different network



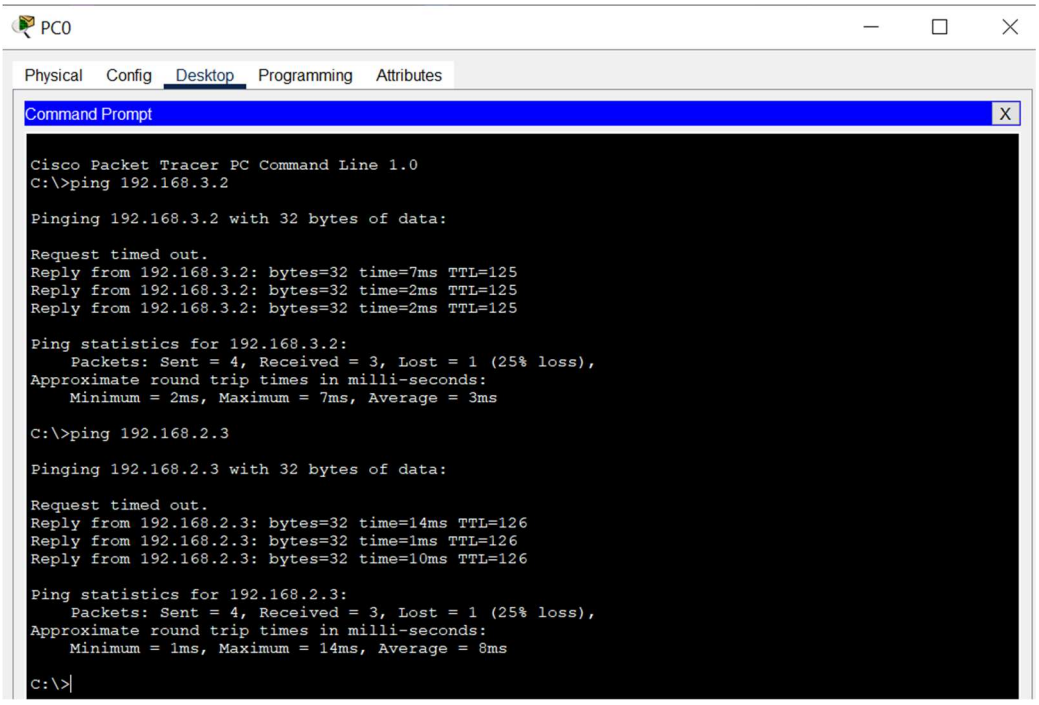
5)Explore the working of netstat ping and traceout command.



1. Ping Command

The ping command is a very common method used to troubleshoot accessibility of devices. It uses a series of Internet Control Message Protocol (ICMP) Echo messages to determine:

- Whether a remote host is active or inactive.
- The round-trip delay used to communicate with the host.
- Packet loss.



2.Trace route:

'Tracert' command in Cisco.

The traceroute command is used to discover the routes that packets actually take when they travel to their destination.