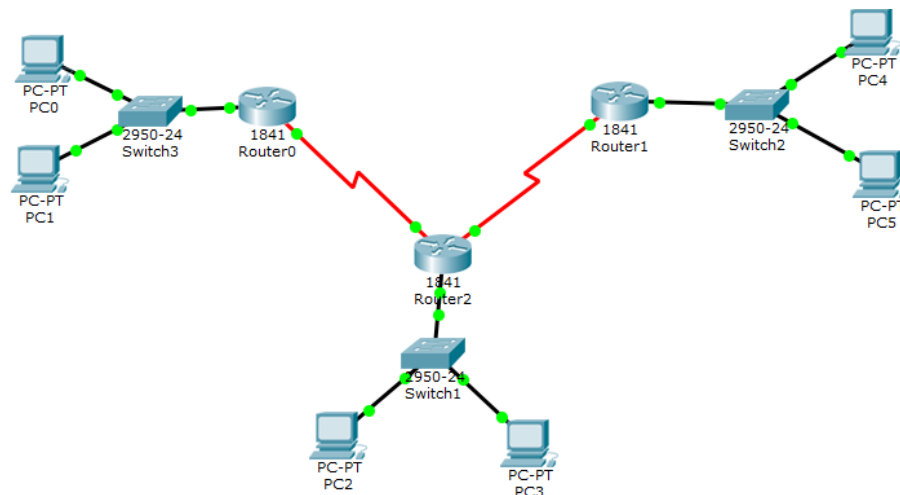


Project Name: Subnetting Implementation and Create a Network Using Subnetting from 192.168.10.0/27 IP Address.

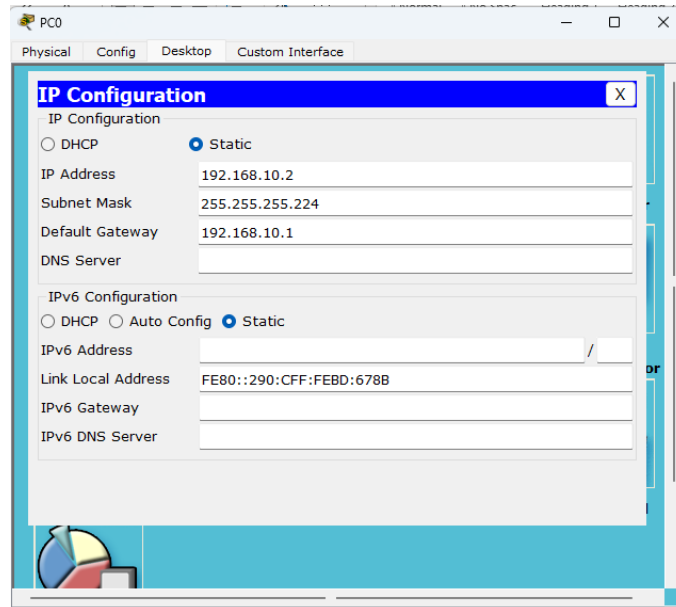
Subnetting Table

Network No.	Network Address	1 st Usable Address	2 nd Usable Address	Last Usable Address	Broadcast Address	Subnet Mask
1	192.168.10.0/27	192.168.10.1	192.168.10.0	192.168.10.0	192.168.10.0	255.255.255.224
2	192.168.10.32/27	192.168.10.0	192.168.10.0	192.168.10.0	192.168.10.0	255.255.255.224
3	192.168.10.64/27	192.168.10.0	192.168.10.0	192.168.10.0	192.168.10.0	255.255.255.224
4	192.168.10.96/27	192.168.10.0	192.168.10.0	192.168.10.0	192.168.10.0	255.255.255.224
5	192.168.10.128/27	192.168.10.0	192.168.10.0	192.168.10.0	192.168.10.0	255.255.255.224

Connection Diagram of Network



PC Configuration

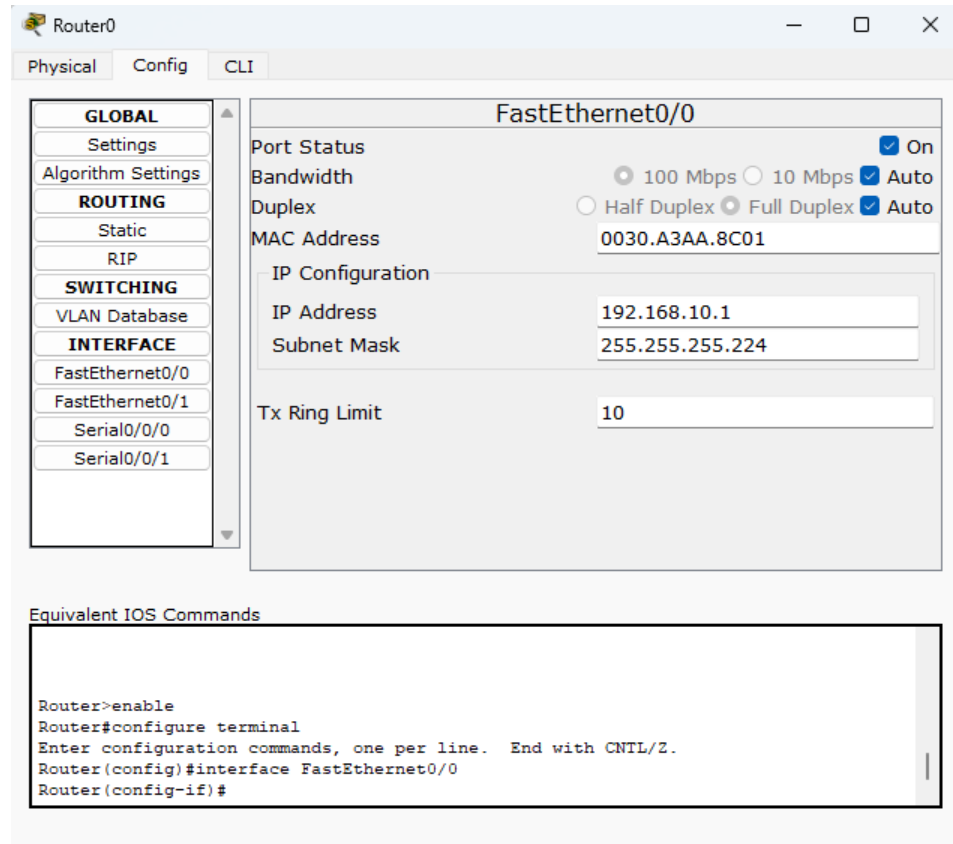


The screenshot shows a window titled "PC0" with tabs for "Physical", "Config", "Desktop", and "Custom Interface". The "Config" tab is active, displaying the "IP Configuration" dialog. The "IP Configuration" section has "Static" selected. The "IPv6 Configuration" section has "Static" selected. The "IP Address" is 192.168.10.2, "Subnet Mask" is 255.255.255.224, and "Default Gateway" is 192.168.10.1. The "IPv6 Address" is empty, "Link Local Address" is FE80::290:CFF:FEBD:678B, and "IPv6 Gateway" is empty.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	192.168.10.2
Subnet Mask	255.255.255.224
Default Gateway	192.168.10.1
DNS Server	

IPv6 Configuration	
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	
Link Local Address	FE80::290:CFF:FEBD:678B
IPv6 Gateway	
IPv6 DNS Server	

Router Configuration



The screenshot shows a window titled "Router0" with tabs for "Physical", "Config", and "CLI". The "Config" tab is active, displaying the "FastEthernet0/0" configuration page. The "Port Status" is "On". The "Bandwidth" is "100 Mbps". The "Duplex" is "Full Duplex". The "MAC Address" is 0030.A3AA.8C01. The "IP Configuration" section has "IP Address" 192.168.10.1 and "Subnet Mask" 255.255.255.224. The "Tx Ring Limit" is 10. The "Equivalent IOS Commands" section shows the following commands:

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

Verifying the network by pinging the IP address

```
Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=1ms TTL=126
Reply from 192.168.10.2: bytes=32 time=2ms TTL=126
Reply from 192.168.10.2: bytes=32 time=1ms TTL=126
Reply from 192.168.10.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

Simulation Result



Event List									Simulation
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	
	Successful	PC0	PC3	ICMP		0.000	N	0	

Fig 3.6 Output of the simulation