

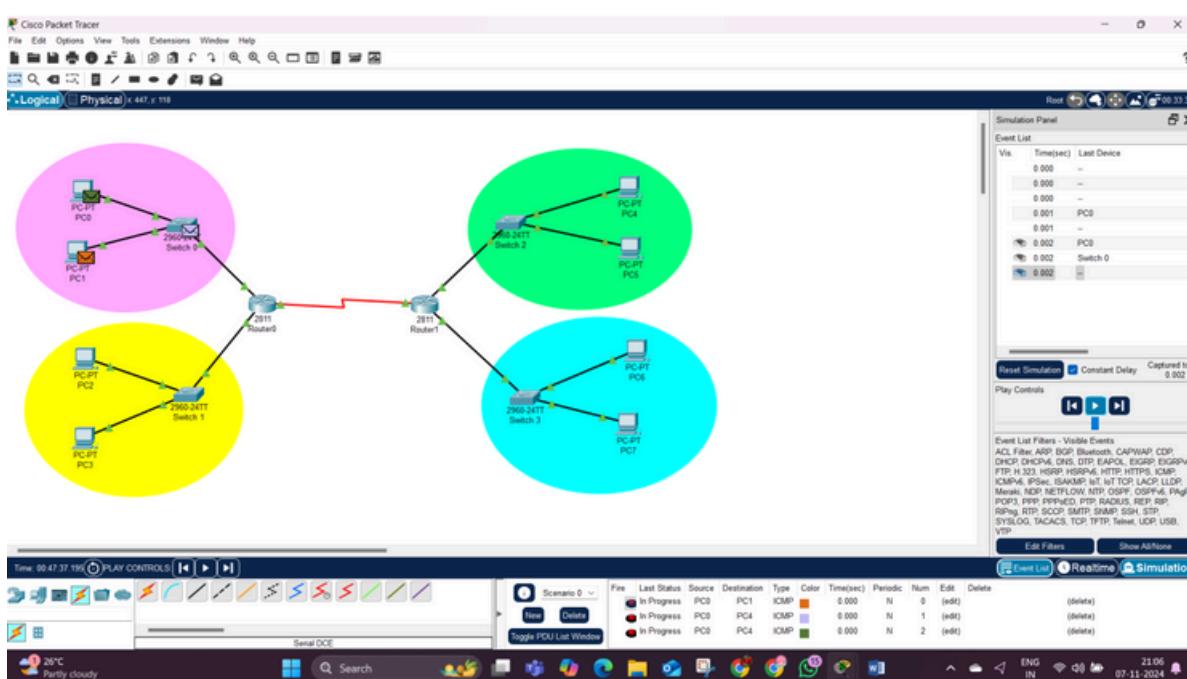
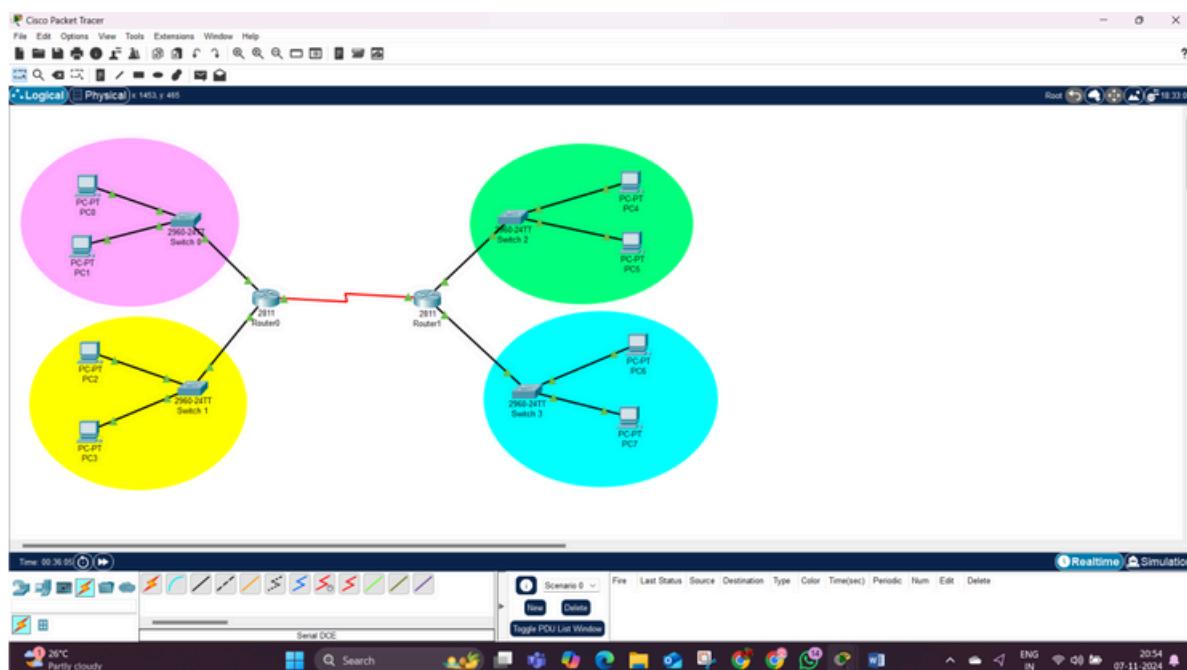
## EXPERIMENT – 9

**AIM:** - Implementation of SUBNETTING in CISCO PACKET TRACER simulator.

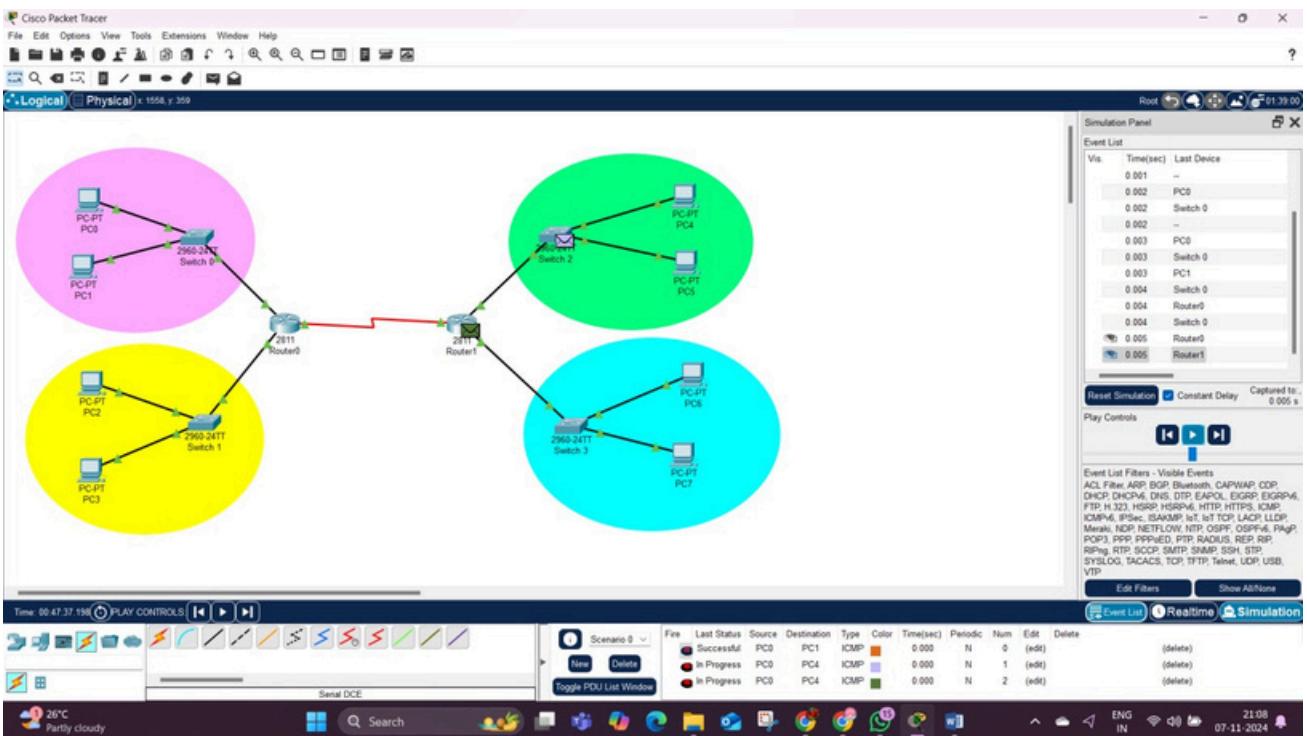
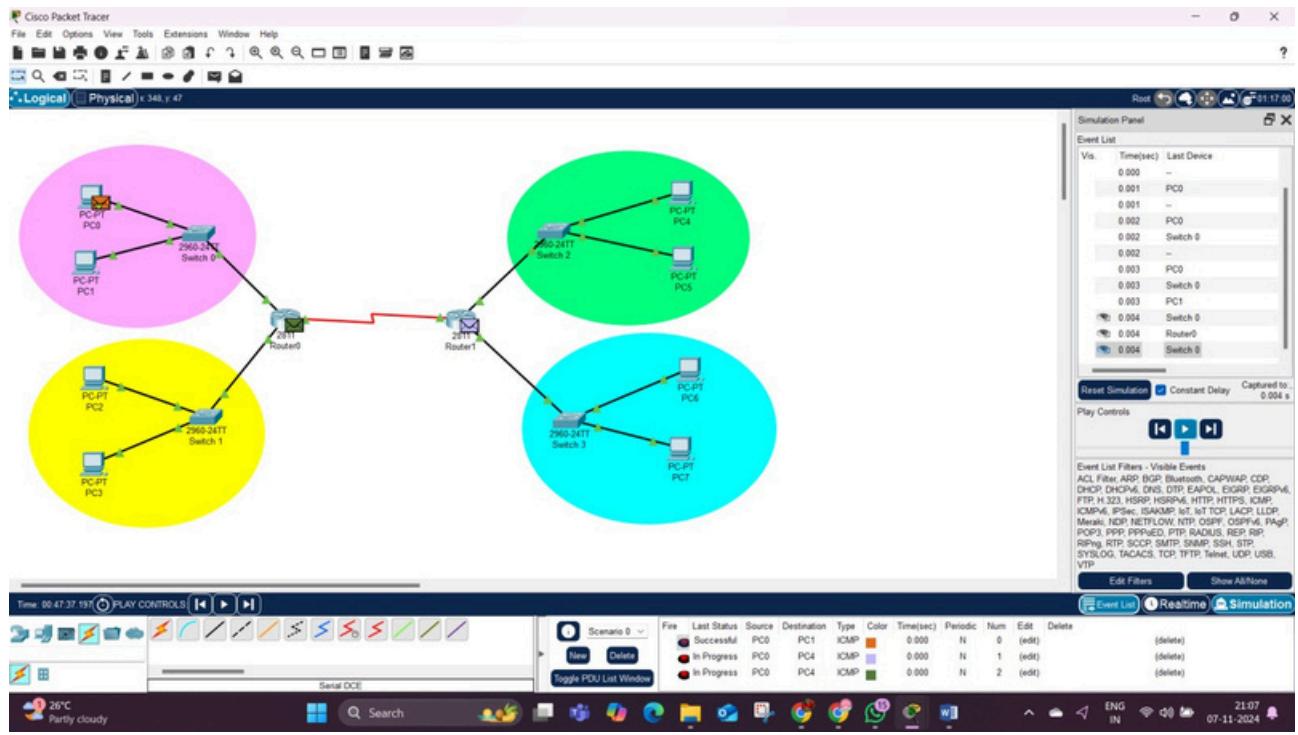
### **What is subnetting?**

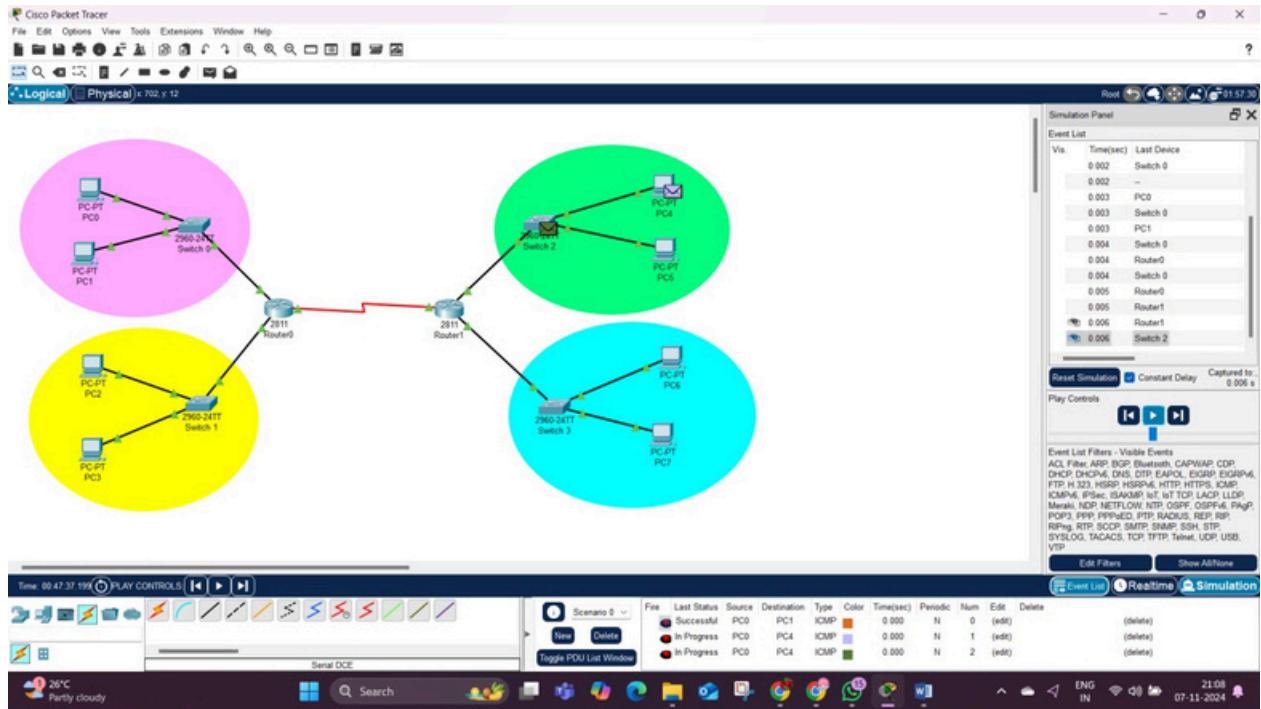
Classless IP subnetting is a technique that allows for more efficient use of IP addresses by allowing for subnet masks that are not just the default masks for each IP class. This means that we can divide our IP address space into smaller subnets, which can be useful when we have a limited number of IP addresses but need to create multiple networks.

### **OUTPUT: -**



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC0	PC1	ICMP	Orange	0.000	N	0	(edit)	(delete)	
Failed	PC0	PC4	ICMP	Light Blue	0.000	N	1	(edit)	(delete)	
Successful	PC0	PC4	ICMP	Dark Green	0.000	N	2	(edit)	(delete)	





PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\> ping 192.168.2.2

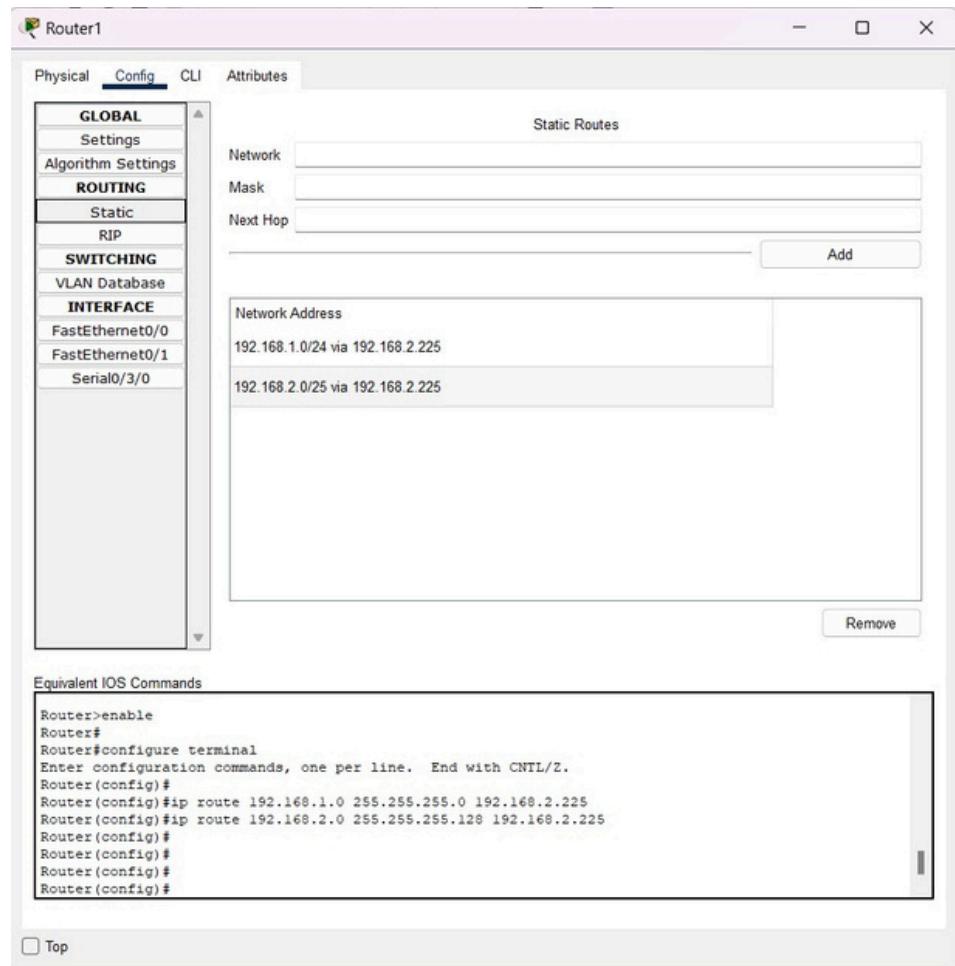
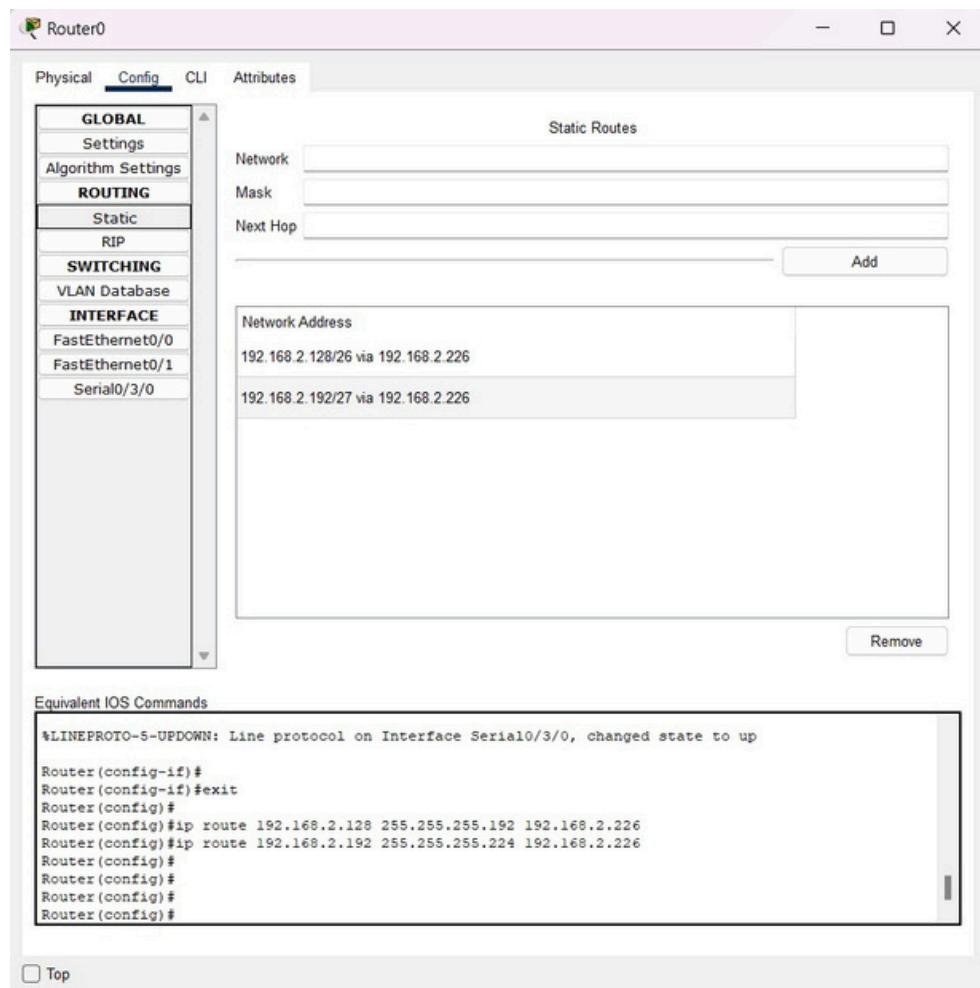
Pinging 192.168.2.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.2: bytes=32 time=185ms TTL=127
Reply from 192.168.2.2: bytes=32 time=1ms TTL=127
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 185ms, Average = 62ms

C:\>
```

Top



The screenshot shows a window titled "PC0" with a tab bar containing "Physical", "Config", "Desktop" (which is selected), "Programming", and "Attributes". Below the tab bar is a "Command Prompt" window with the following text:

```
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 185ms, Average = 62ms

C:\> ping 192.168.2.129

Pinging 192.168.2.129 with 32 bytes of data:
Reply from 192.168.1.100: Destination host unreachable.

Ping statistics for 192.168.2.129:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\> ping 192.168.2.193

Pinging 192.168.2.193 with 32 bytes of data:
Request timed out.
Reply from 192.168.2.193: bytes=32 time=10ms TTL=126
Reply from 192.168.2.193: bytes=32 time=16ms TTL=126
Reply from 192.168.2.193: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.2.193:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 16ms, Average = 9ms

C:\> ping 192.168.2.193

Pinging 192.168.2.193 with 32 bytes of data:
Reply from 192.168.2.193: bytes=32 time=24ms TTL=126
Reply from 192.168.2.193: bytes=32 time=10ms TTL=126
Reply from 192.168.2.193: bytes=32 time=10ms TTL=126
Reply from 192.168.2.193: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.2.193:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 24ms, Average = 11ms

C:\>
```

## **RESULT: -**

Implementation of SUBNETTING in CISCOPACKET TRACER simulator have been done successfully