19ECE311 – Computer Networks

ASSIGNMENT – 2

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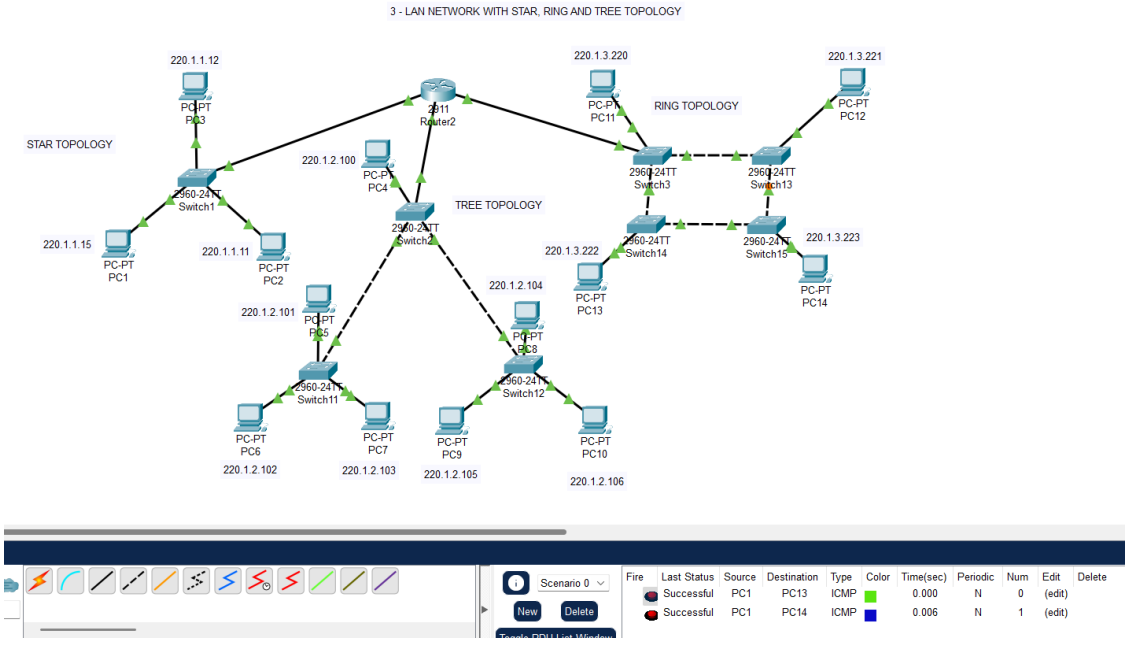
2. Create 3 LAN networks connected via a single Router (CPT). Choose appropriate router, connection and configure it. Each LAN network is configured via Tree, Star and Ring topologies respectively.

The IP addresses for the implementation of topologies should be chosen based on the 5 digits of your Roll No.

Ex: U4ECE220XX for A batch

U4ECE221XX for B batch

Ex IP address for Roll no 12 (for A and B batch) is:**220**.**12**.x.x for A batch and **221**.**12**.x.x for B batch. You may take the subsequent IP addresses based on the mentioned roll number IP.



Pinging PCs' of different networks

```
C:\>ping 220.1.2.101

Pinging 220.1.2.101 with 32 bytes of data:

Reply from 220.1.2.101: bytes=32 time<1ms TTL=127
Reply from 220.1.2.101: bytes=32 time<1ms TTL=127
Reply from 220.1.2.101: bytes=32 time<1ms TTL=127
Reply from 220.1.2.101: bytes=32 time<1ms TTL=127

Ping statistics for 220.1.2.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.1.3.220

Pinging 220.1.3.220 with 32 bytes of data:

Reply from 220.1.3.220: bytes=32 time=6ms TTL=127
Reply from 220.1.3.220: bytes=32 time<1ms TTL=127
Reply from 220.1.3.220: bytes=32 time<1ms TTL=127
Reply from 220.1.3.220: bytes=32 time<1ms TTL=127

Ping statistics for 220.1.3.220:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms
```

```
Pinging 220.1.3.222 with 32 bytes of data:

Reply from 220.1.3.222: bytes=32 time<1ms TTL=127
Reply from 220.1.3.222: bytes=32 time<1ms TTL=127
Reply from 220.1.3.222: bytes=32 time<1ms TTL=127
Reply from 220.1.3.222: bytes=32 time<1ms TTL=127

Ping statistics for 220.1.3.222:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Router Configuration

```
Router>en
Router#conf ter
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int g0/0
Router(config-if)#ip add 220.1.1.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
exit
Router(config)#int g0/1
Router(config-if)#ip add 220.1.2.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
exit
Router(config)#int g0/1
Router(config-if)#exit
Router(config)#int g0/2
Router(config-if)#ip add 220.1.3.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up
exit
```