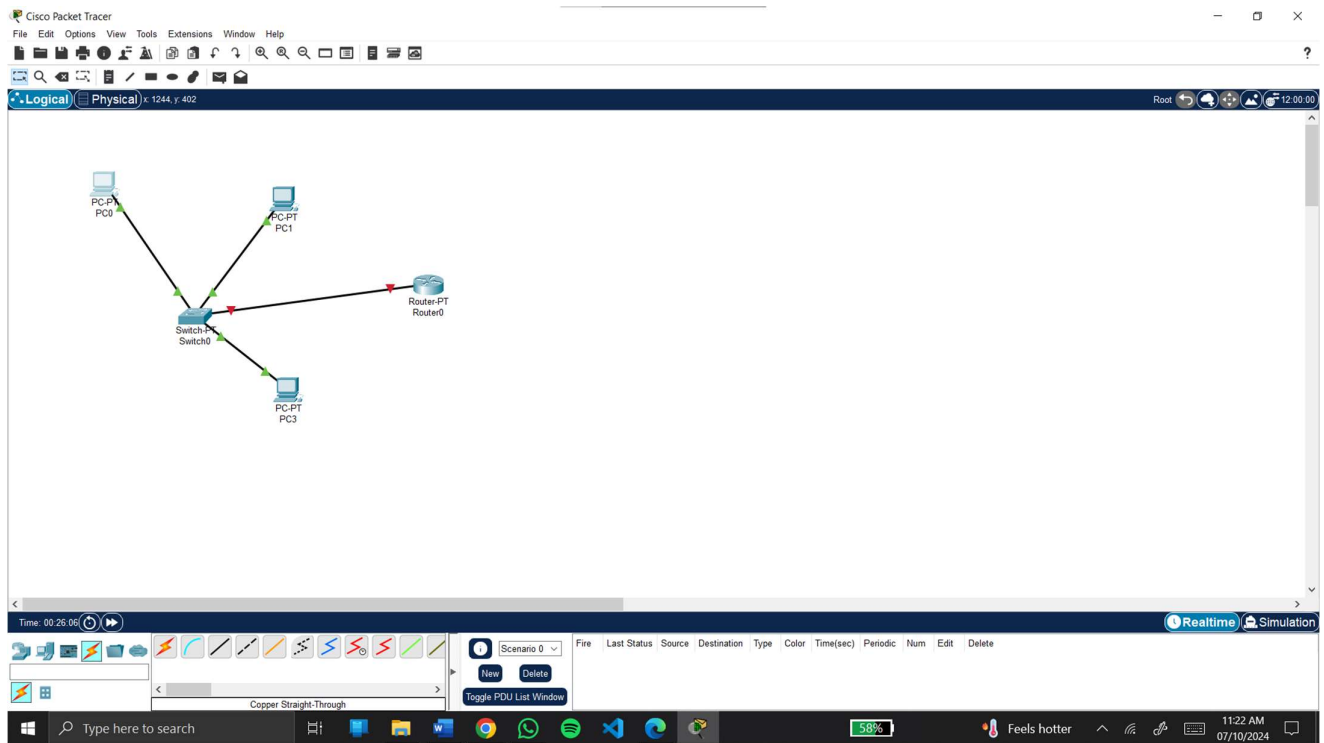
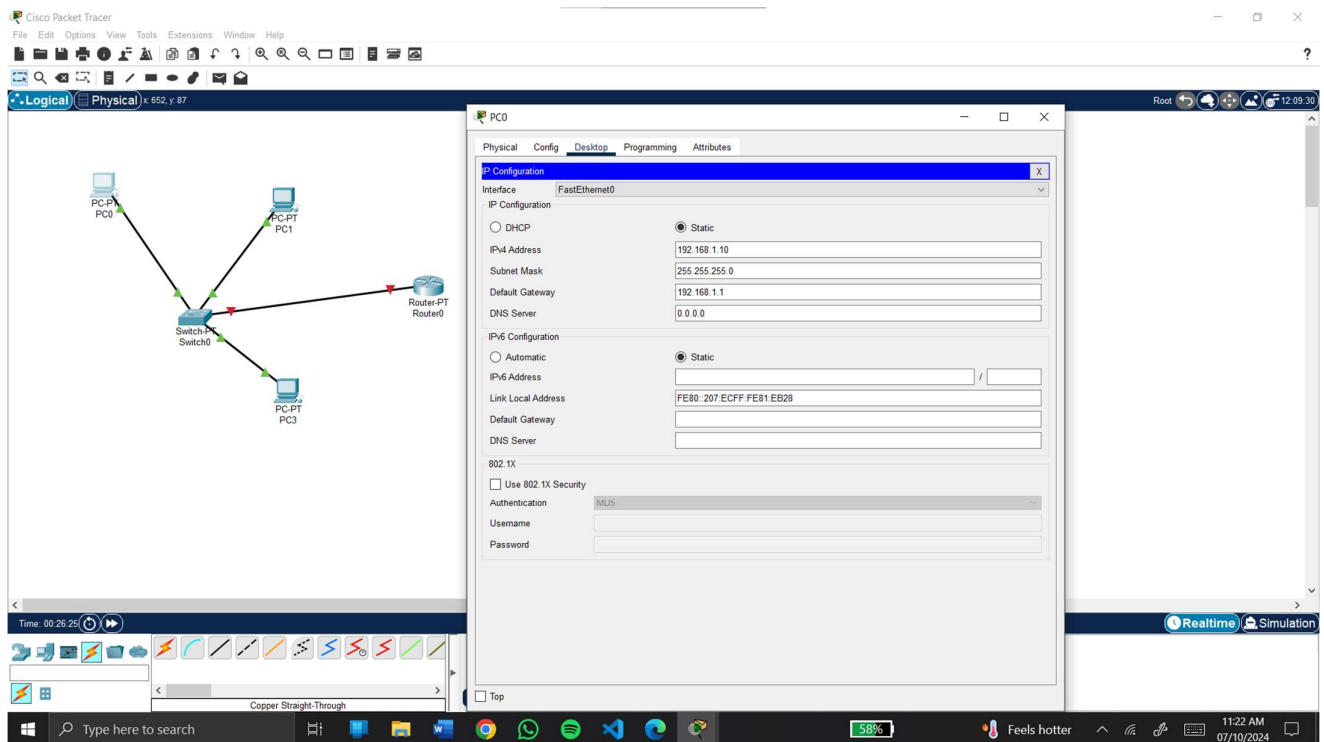


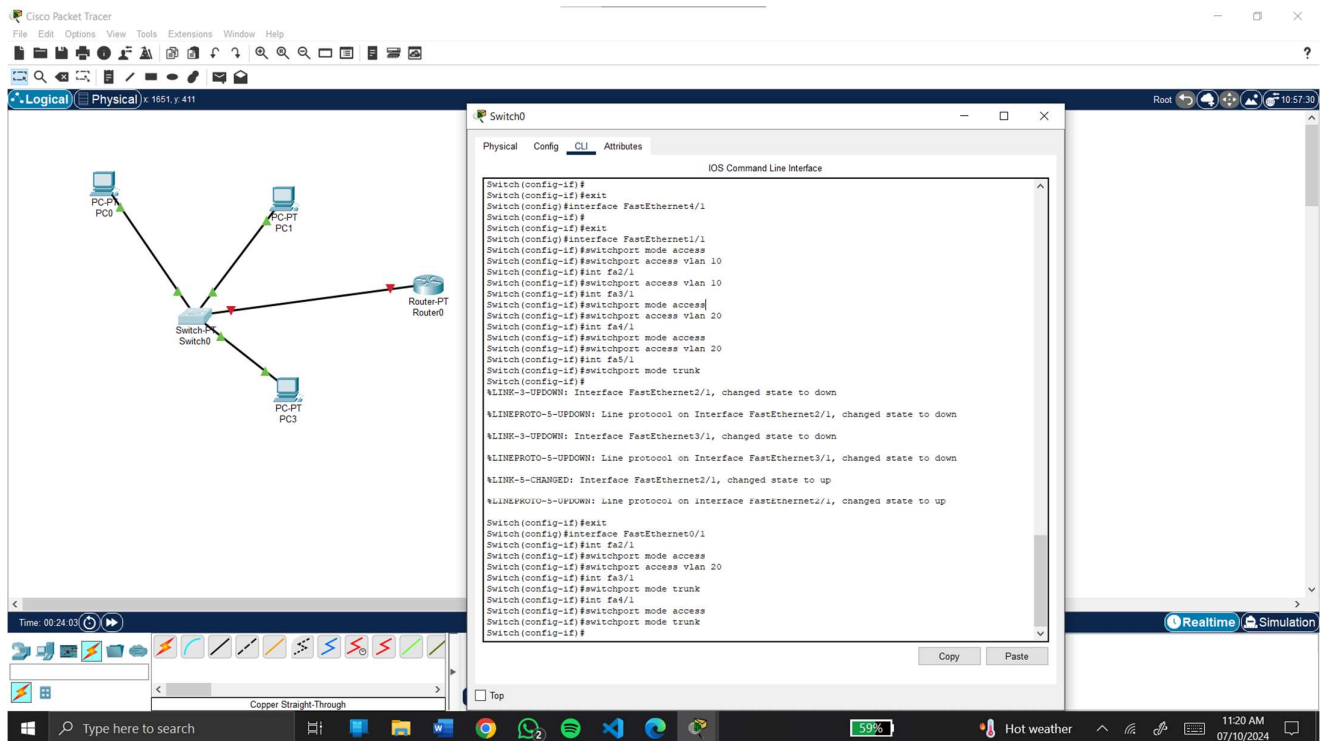
Topology:-



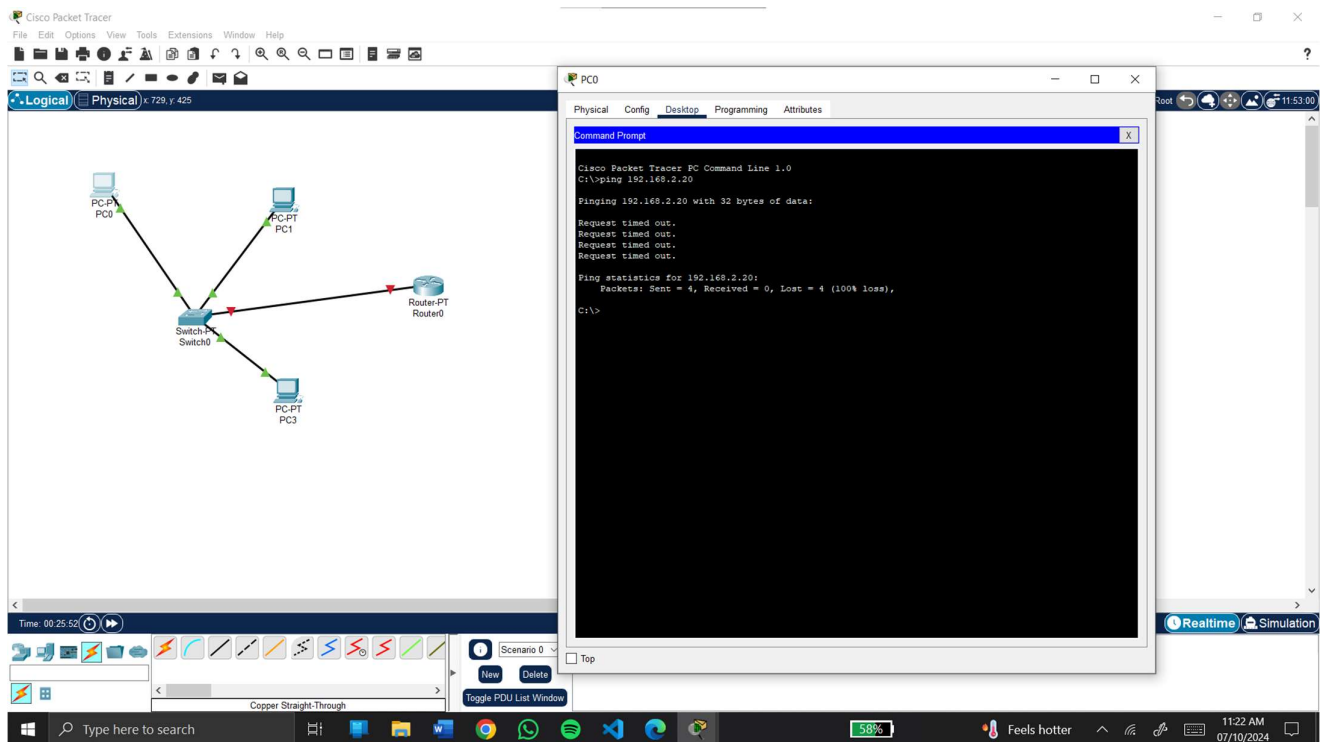
IP Address Configuration:-



VLAN Configuration:-



Checking connection:-



Router Configuration:-

The screenshot displays the Cisco Packet Tracer interface. On the left, a network diagram shows a central Switch0 connected to four PCs (PC0, PC1, PC2, PC3) and a Router-PT (Router0). The Router0 configuration window is open, showing the following commands and their outputs:

```
Router>en
Router(config)#
Router(config)#int fa0/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#int fa0/0.10
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.10, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.10, changed state to up
Router(config-subif)#encapsulation dot1q 10
Router(config-subif)#ip add 192.168.1.1 255.255.255.0
Router(config-subif)#ip add 192.168.1.1 255.255.255.0
Router(config-subif)#int fa0/0.20
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.20, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up
Router(config-subif)#encapsulation dot1q 20
Router(config-subif)#ip add 192.168.2.2 255.255.255.0
Router(config-subif)#
```

Checking connection:-

The screenshot displays the Cisco Packet Tracer interface. On the left, the same network diagram is shown. The PC0 configuration window is open, showing the following commands and their outputs:

```
PC0>ping 192.168.2.20

Pinging 192.168.2.20 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.2.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    0 bytes transferred
PC0>ping 192.168.2.20

Pinging 192.168.2.20 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.20: bytes=32 time=1ms TTL=127
Reply from 192.168.2.20: bytes=32 time=1ms TTL=127
Reply from 192.168.2.20: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.2.20:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC0>
```