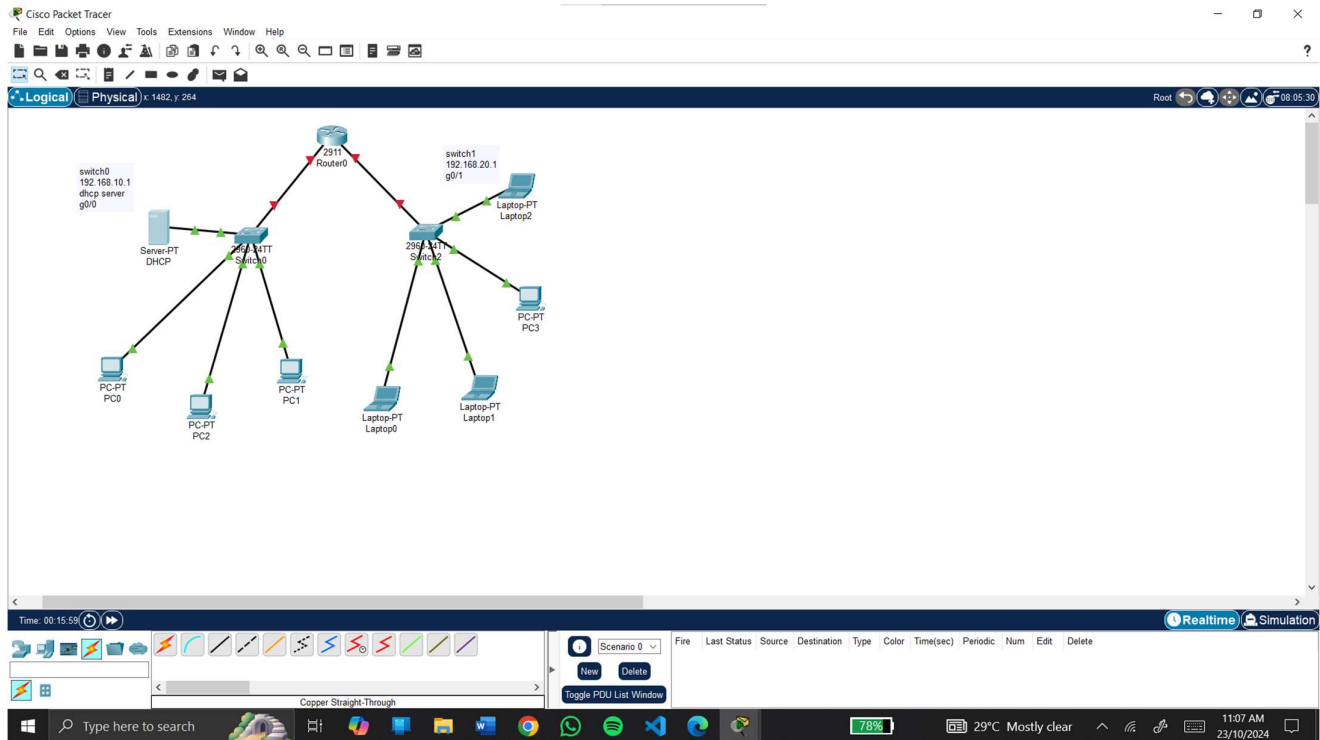


Topology:-

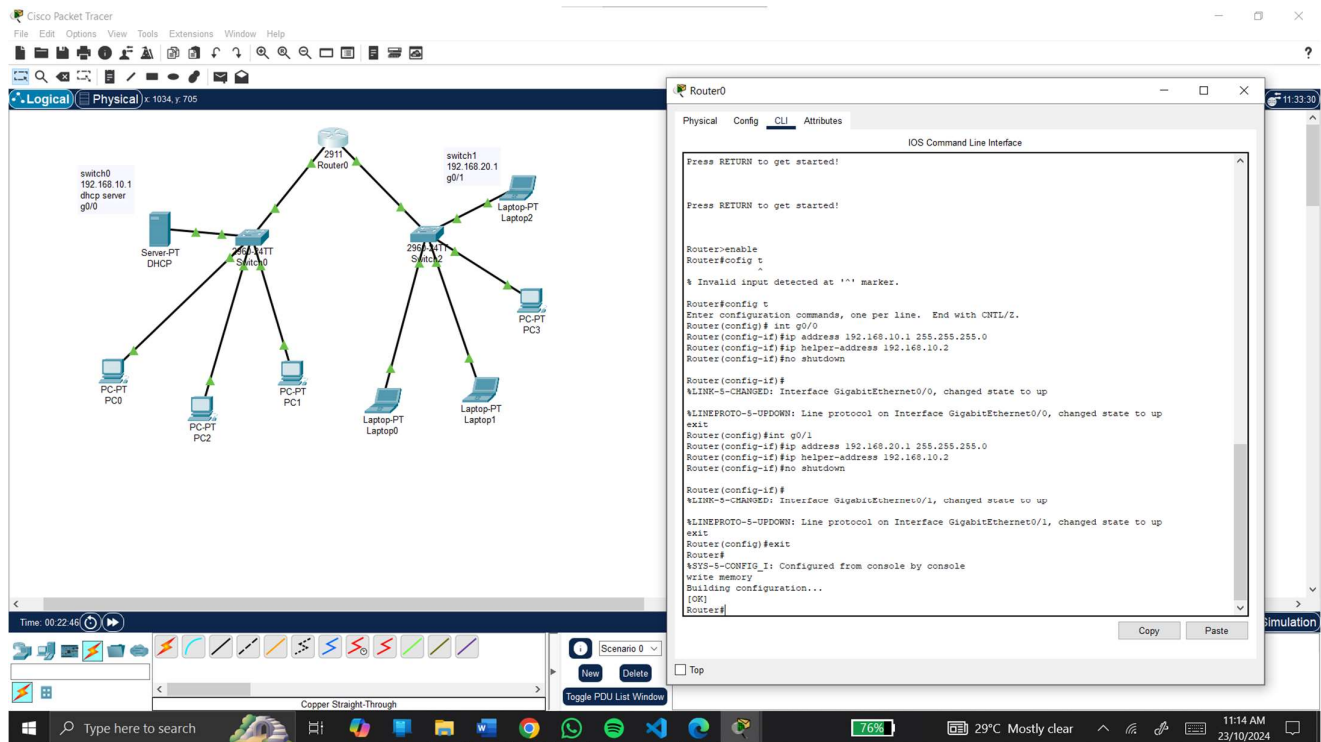


DHCP Configuration:-

The diagram shows the same network topology as above, but with the DHCP configuration window open. The window is titled 'DHCP' and has tabs for 'Physical', 'Config', 'Services', 'Desktop', 'Programming', and 'Attributes'. The 'Services' tab is selected, and the 'DHCP' service is configured for the 'FastEthernet0' interface. The configuration includes a pool named 'switchTWO' with a default gateway of '192.168.20.1' and a DNS server of '0.0.0.0'. The start IP address is '192.168.20.2' and the subnet mask is '255.255.255.0'. The maximum number of users is set to '20'. The 'WLC Address' is '0.0.0.0'. The 'Add' button is highlighted, and a table of DHCP pools is displayed below.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
switchTWO	192.168.20.1	0.0.0.0	192.168.20.2	255.255.255.0	20	0.0.0.0	0.0.0.0
switchONE	192.168.10.1	0.0.0.0	192.168.10.3	255.255.255.0	20	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	192.168.10.0	255.255.255.0	512	0.0.0.0	0.0.0.0

Router Configuration:-

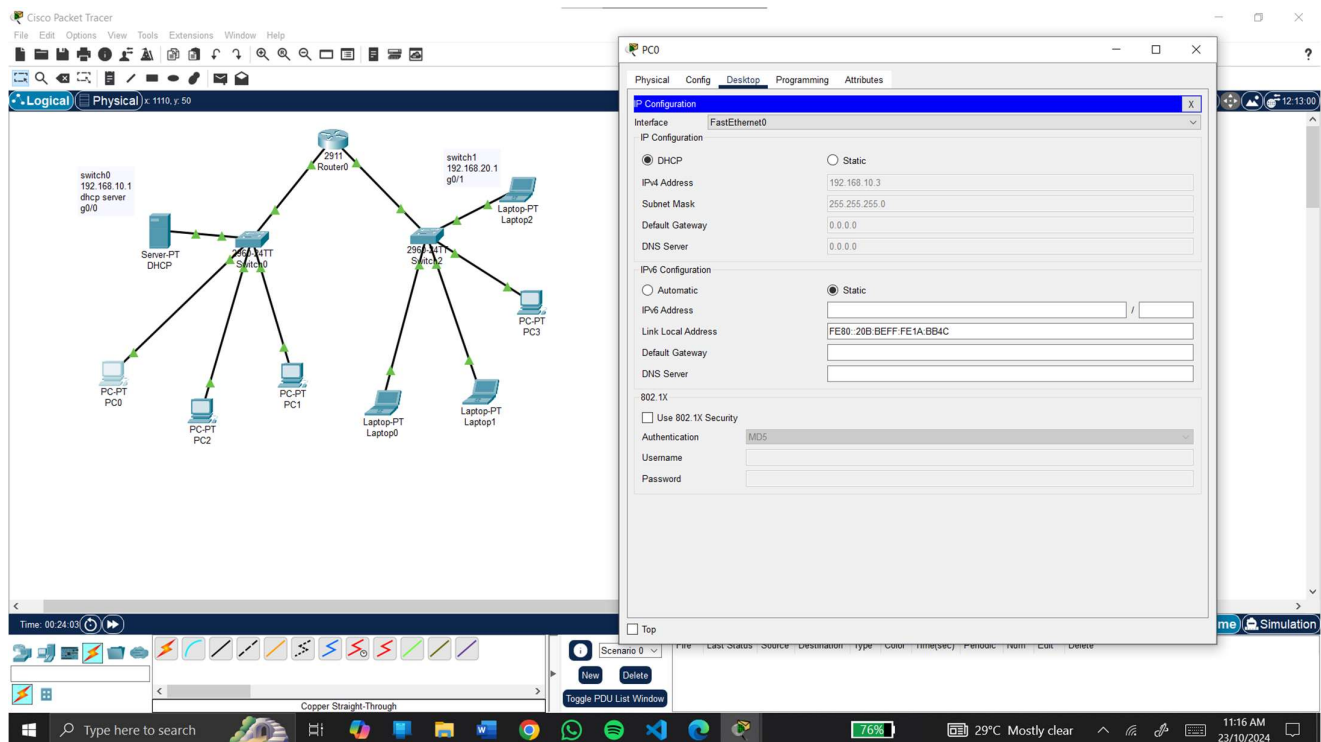


The screenshot displays the Cisco Packet Tracer interface. On the left, a network diagram shows a central 2911 Router0 connected to two switches, switch0 and switch1. switch0 is a 2960 Switch0 and switch1 is a 2960 Switch1. switch0 is connected to a Server-PT DHCP and three PC-PT devices (PC0, PC1, PC2). switch1 is connected to three Laptop-PT devices (Laptop0, Laptop1, Laptop2). The bottom status bar shows the time as 00:22:46 and the scenario as Scenario 0.

On the right, the Router0 configuration window is open, showing the CLI interface. The configuration commands entered are:

```
Router>enable
Router>conf t
Router(config)# int g0/0
Router(config-if)# ip address 192.168.10.1 255.255.255.0
Router(config-if)# ip helper-address 192.168.10.2
Router(config-if)# no shutdown
Router(config-if)#
%LINK-3-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
Router(config-if)# int g0/1
Router(config-if)# ip address 192.168.20.1 255.255.255.0
Router(config-if)# ip helper-address 192.168.10.2
Router(config-if)# no shutdown
Router(config-if)#
%LINK-3-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
Router(config)# exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
write memory
Building configuration...
[OK]
Router#
```

PC Configuration:-



The screenshot displays the Cisco Packet Tracer interface with the same network diagram as the Router Configuration screenshot. The bottom status bar shows the time as 00:24:03 and the scenario as Scenario 0.

On the right, the PC0 configuration window is open, showing the Desktop tab. The IP Configuration section is set to DHCP. The IPv4 Address is 192.168.10.3, the Subnet Mask is 255.255.255.0, and the Default Gateway is 0.0.0.0. The DNS Server is also set to 0.0.0.0. The IPv6 Configuration section is set to Static. The IPv6 Address is FE80::20B:BEFF:FE1A:BB4C, the Link Local Address is FE80::20B:BEFF:FE1A:BB4C, and the Default Gateway is empty. The DNS Server is also empty. The Authentication section is set to MD5, and the Username and Password fields are empty.

Checking Connection:-

The image shows a Cisco Packet Tracer network setup and a PC1 command prompt window. The network diagram features a central 2911 Router0 connected to two switches: switch0 (2960) and switch1 (2960). switch0 is connected to a Server-PT DHCP (192.168.10.1) and three PCs (PC0, PC1, PC2). switch1 is connected to two Laptops (Laptop0, Laptop1) and a PC (PC3). The PC1 window displays the following output:

```
Physical Config Desktop Programming Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:
Reply from 192.168.10.3: bytes=32 time=1ms TTL=128
Reply from 192.168.10.3: bytes=32 time=1ms TTL=128
Reply from 192.168.10.3: bytes=32 time=1ms TTL=128
Reply from 192.168.10.3: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>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=128
Reply from 192.168.10.2: bytes=32 time=1ms TTL=128
Reply from 192.168.10.2: bytes=32 time=1ms TTL=128
Reply from 192.168.10.2: bytes=32 time=1ms TTL=128

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

C:\>ping 192.168.10.4

Pinging 192.168.10.4 with 32 bytes of data:
Reply from 192.168.10.4: bytes=32 time=1ms TTL=128
Reply from 192.168.10.4: bytes=32 time=1ms TTL=128
Reply from 192.168.10.4: bytes=32 time=1ms TTL=128
Reply from 192.168.10.4: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```