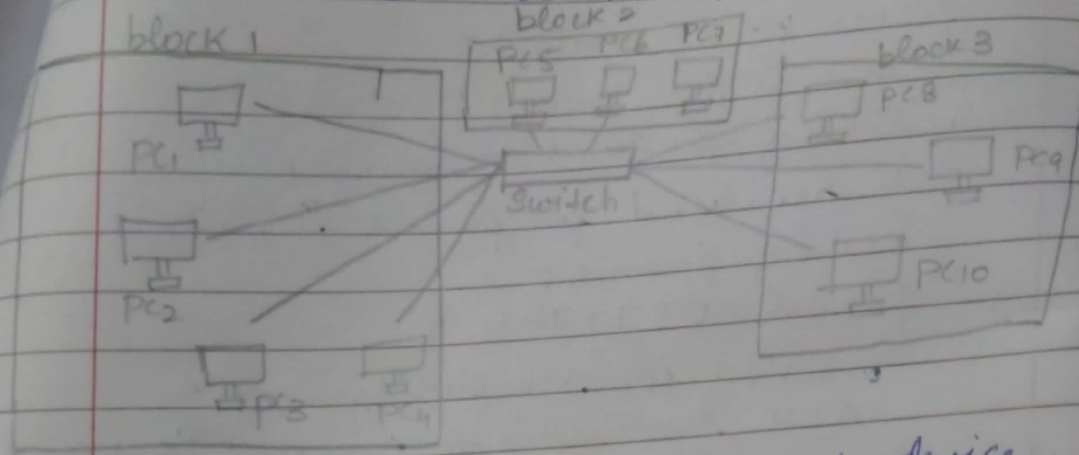


practical-8

Aim : a) Simulate virtual lan configuration using CISCO packet tracer simulation

a) Draw and label the VLAN for



b) Show the ip configuration for each device

Device	IP Address	Subnet mask	Default Gateway
PC1	192.168.20.2	255.255.255.0	192.168.20.1
PC2	192.168.20.3	255.255.255.0	192.168.20.1
PC3	192.168.20.4	255.255.255.0	192.168.20.1
PC4	192.168.20.5	255.255.255.0	192.168.20.1
PC5	192.168.20.6	255.255.255.0	192.168.20.1
PC6	192.168.20.7	255.255.255.0	192.168.20.1
PC7	192.168.20.8	255.255.255.0	192.168.20.1
PC8	192.168.20.9	255.255.255.0	192.168.20.1
PC9	192.168.20.10	255.255.255.0	192.168.20.1
PC10	192.168.20.11	255.255.255.0	192.168.20.1

c) Write the commands used for VLAN configuration in switch.

Switch > enable

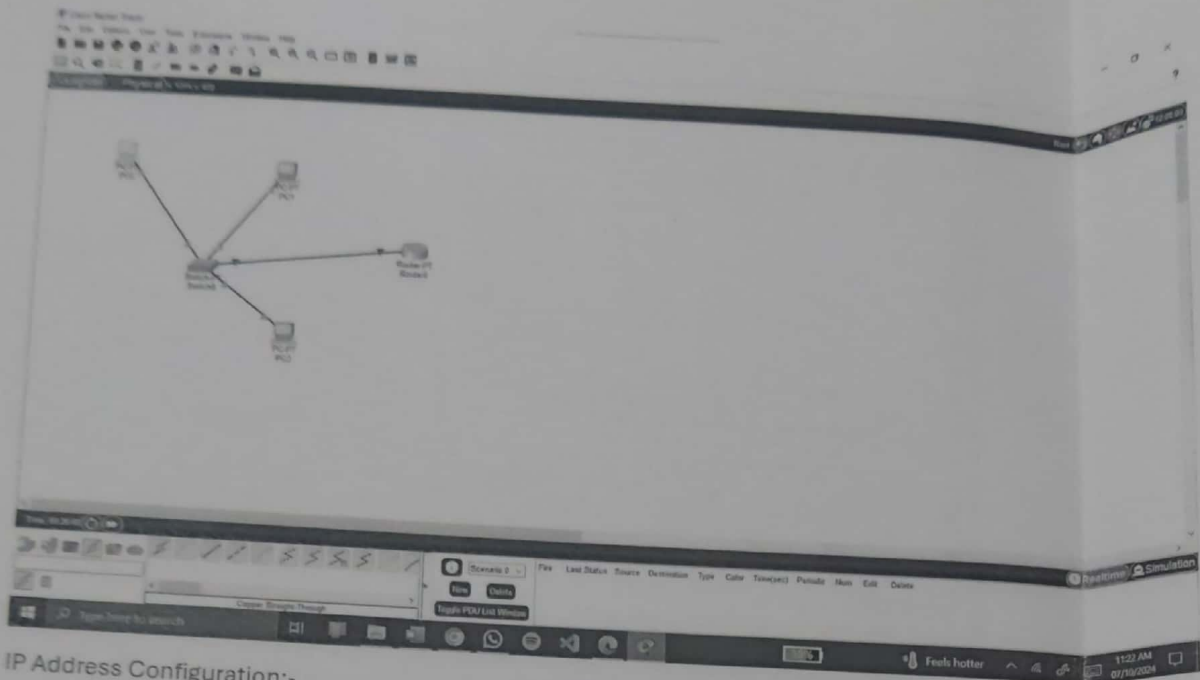
Switch # configure terminal

Switch (config) # vlan 10

Switch (config-vlan) # name Robotics

Switch [config-vlan] # exit

Topology:-



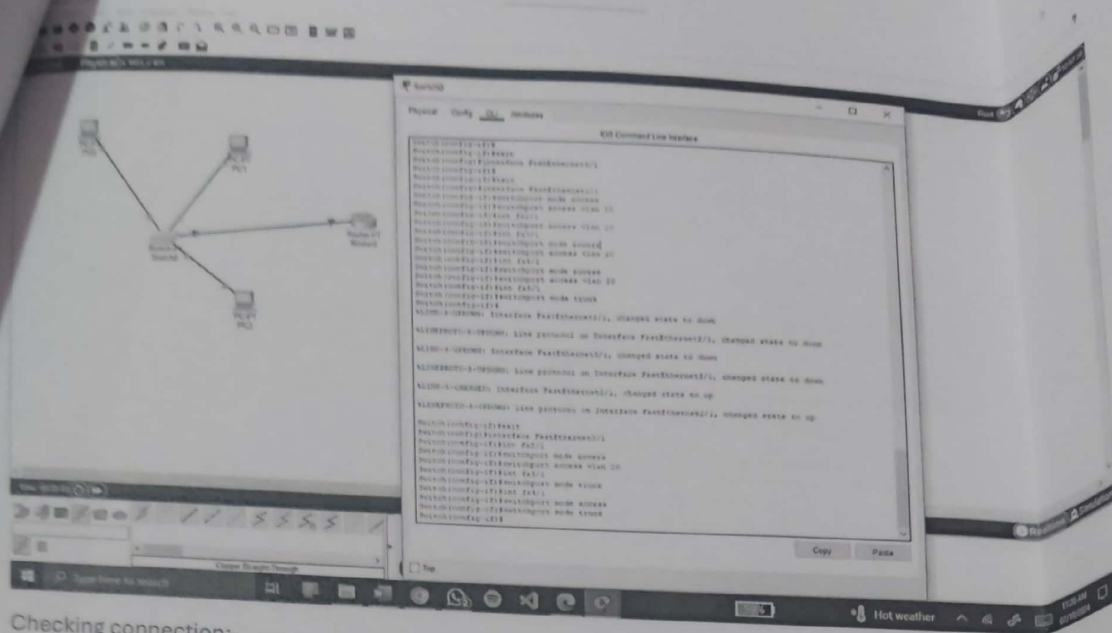
IP Address Configuration:-

The screenshot shows the IP Configuration window for a PC in the simulation. The window is titled "PC0" and has tabs for "Physical", "Config", "Statistics", "Programming", and "Attributes". The "Config" tab is selected, showing the "IP Configuration" section. The "IP Configuration" section has a dropdown menu set to "FastEthernet0". The "IP Configuration" section is divided into two main sections: "DHCP" and "Static". The "Static" section is selected, showing the following configuration:

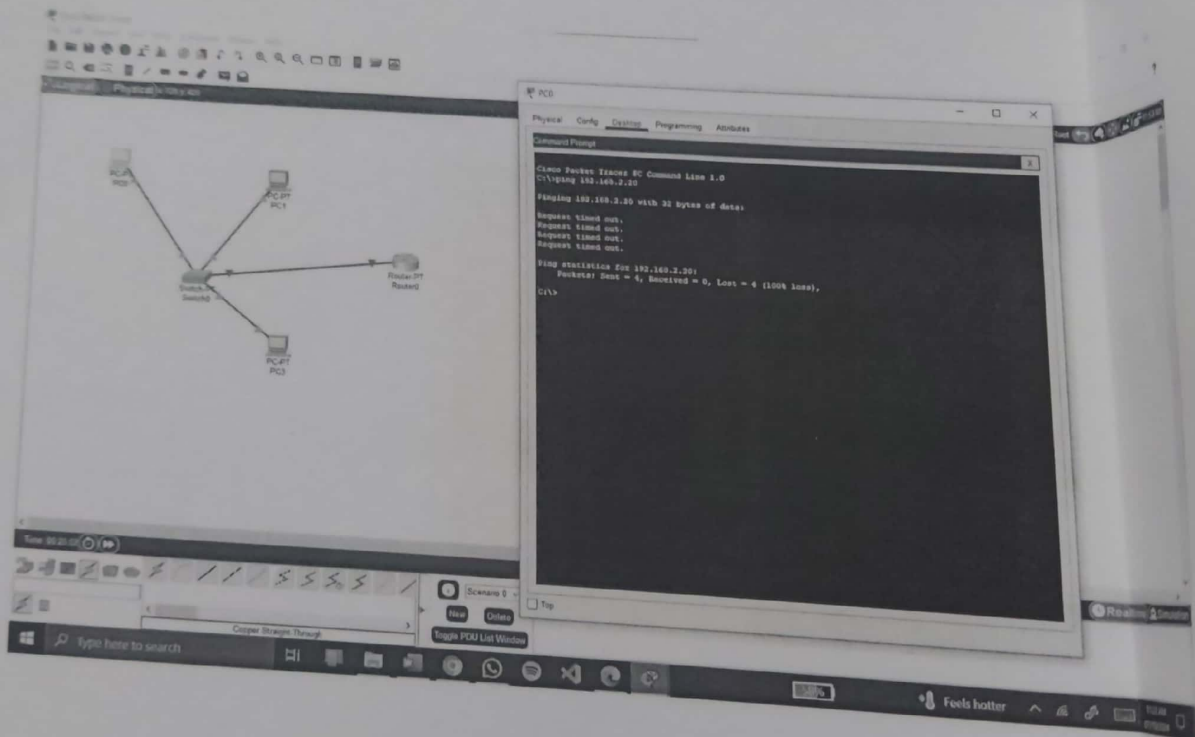
- IP Address: 192.168.1.10
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.1.1
- DNS Server: 8.8.8.8

The "DHCP" section is also visible, showing the "Automatic" option selected. The "Link Local Address" section is also visible, showing the "FE80::201:C0FF:FE31:E529" address. The "Use IPv6 (v6) Security" checkbox is checked. The "Authentication" section is also visible, showing the "Username" and "Password" fields.

Configuration:-

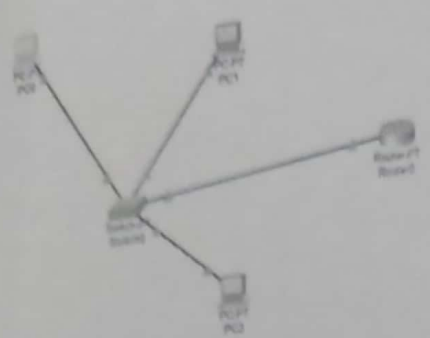


Checking connection:-



Switch + PC

Configuration:-



Physical Config Attributes

IOS Command Line Interface

```

128 bytes of non-volatile configuration memory.
65536 bytes of ATA CompactFlash (Read/Write)

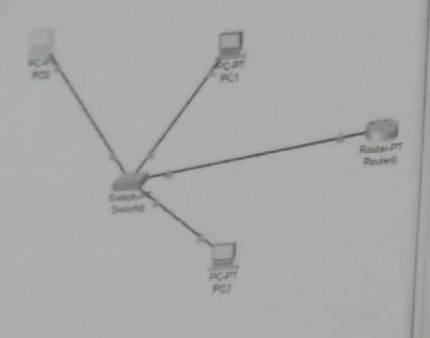
--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [n]

Press RETURN to get started!

Router>
Router>conf t
Enter configuration commands, one per line. End with CTRL/Z.
Router(config)#int fa0/0
Router(config-if)#ip 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config)#int fa0/0.10
Router(config-subif)#ip 192.168.1.1 255.255.255.0
Router(config-subif)#no shutdown
Router(config-subif)#
Router(config)#int fa0/0.20
Router(config-subif)#ip 192.168.2.1 255.255.255.0
Router(config-subif)#no shutdown
Router(config-subif)#
Router(config)#int fa0/0.30
Router(config-subif)#ip 192.168.3.1 255.255.255.0
Router(config-subif)#no shutdown
Router(config-subif)#
  
```

Checking connection:-



Physical Config Attributes

Command Prompt

```

C:\>ping 192.168.3.20
Pinging 192.168.3.20 with 32 bytes of data:

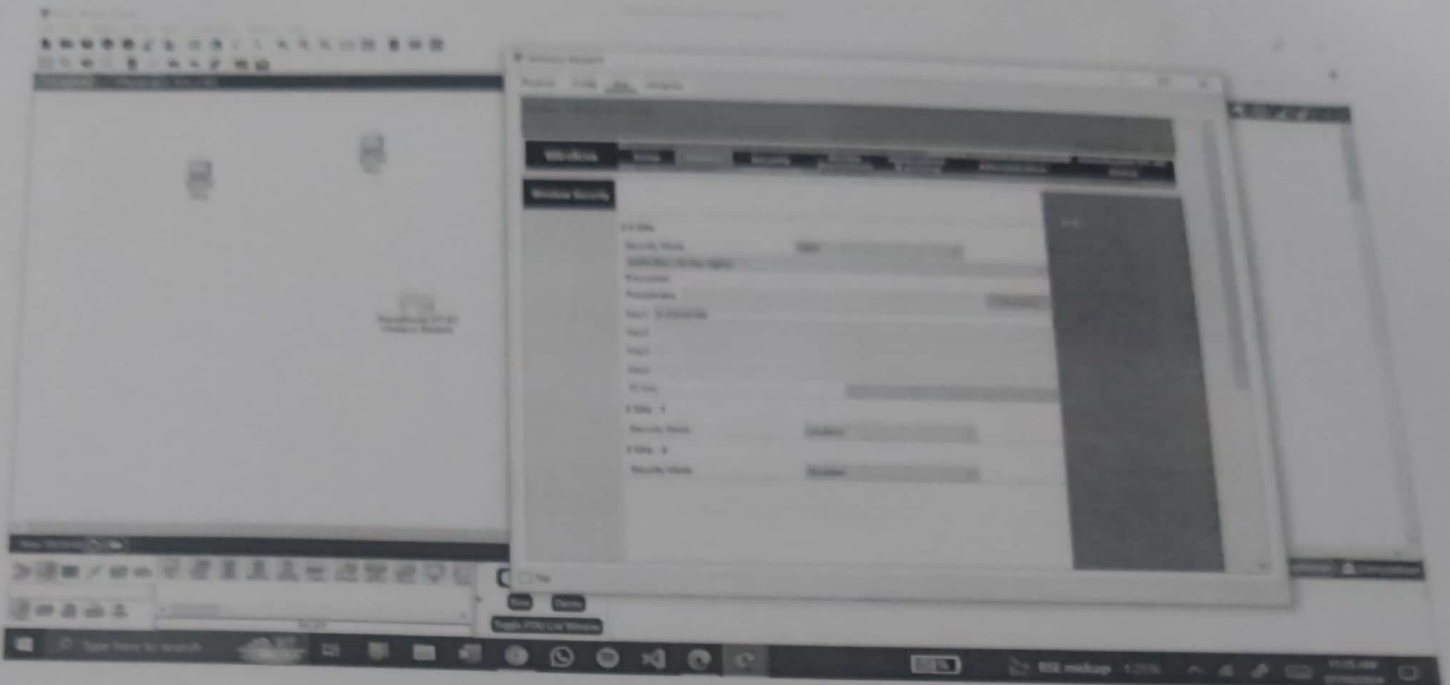
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.3.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 192.168.2.20
Pinging 192.168.2.20 with 32 bytes of data:

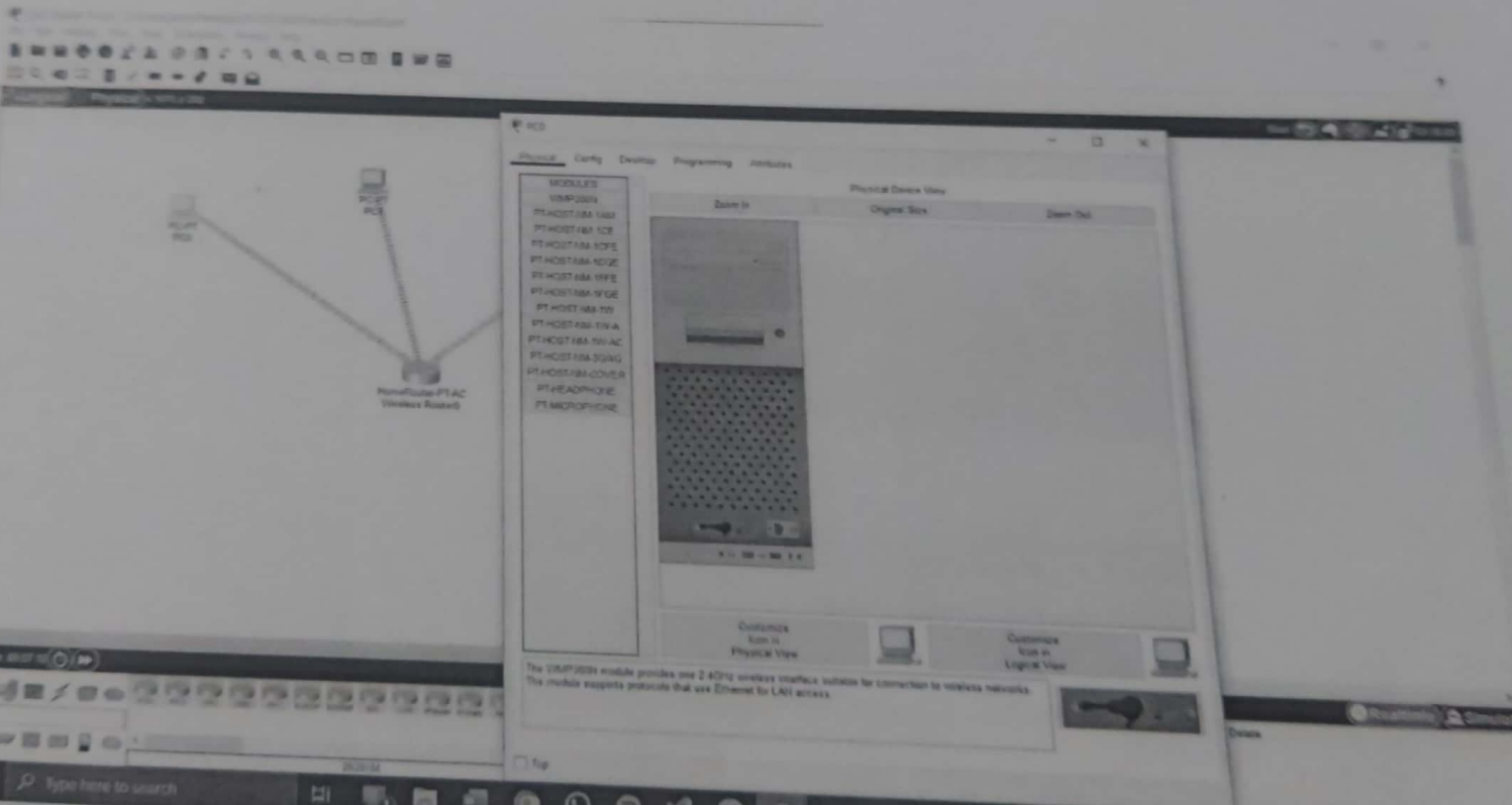
Request timed out.
Reply from 192.168.2.20: bytes=32 time=127ms TTL=127
Reply from 192.168.2.20: bytes=32 time=127ms TTL=127
Reply from 192.168.2.20: bytes=32 time=127ms TTL=127

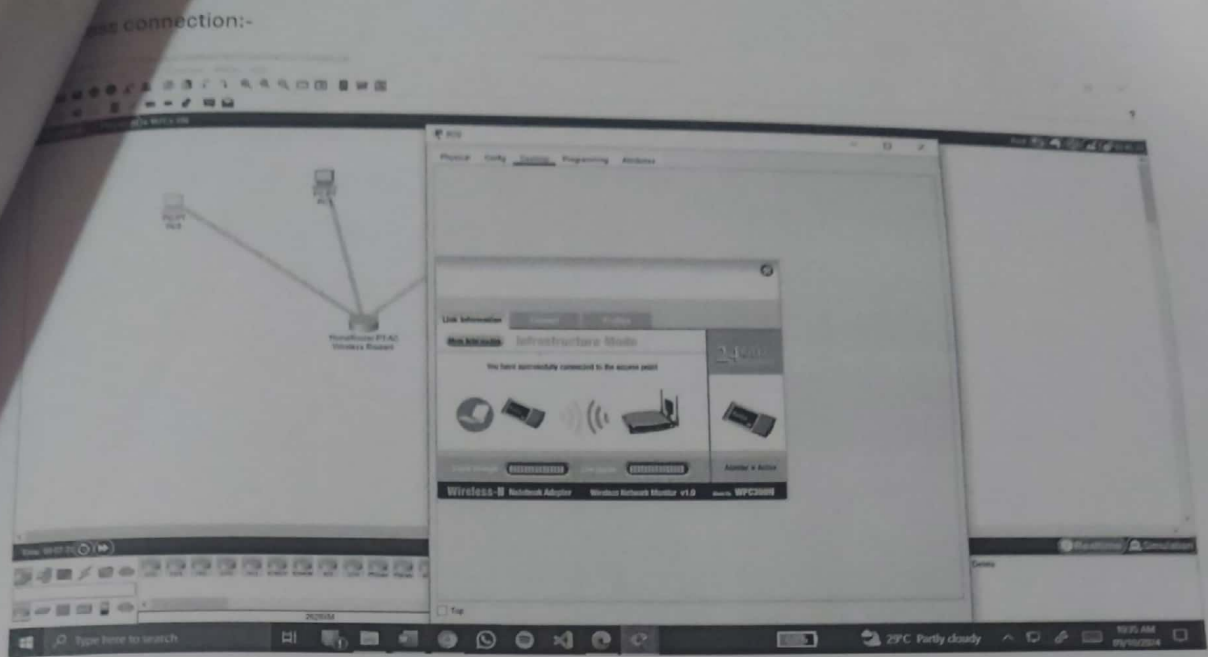
Ping statistics for 192.168.2.20:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milliseconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
  
```

Router Configuration:-

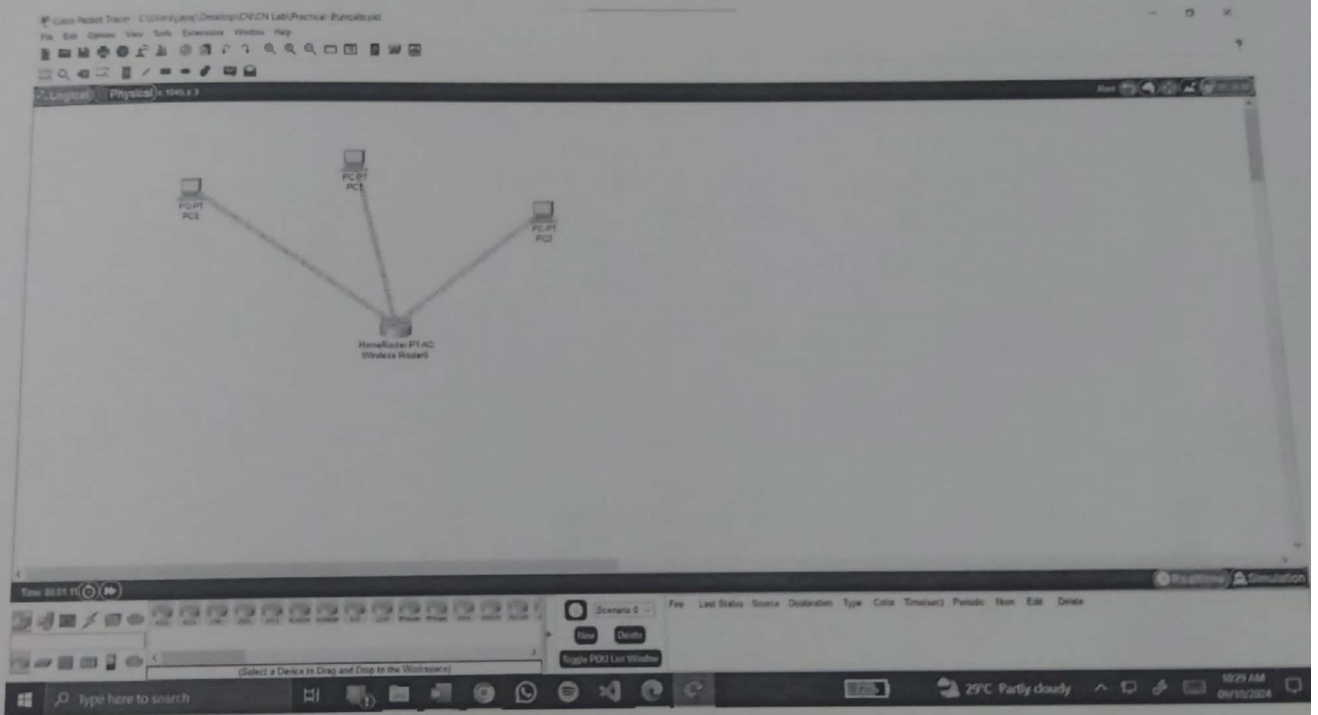


PC Configuration:-





Topology:-



Switch (config) # interface range 1 of 0/1-10
Switch (config-if-range) # Switch port mode
Switch (config-if-range) # Switch port
access vlan 10
Switch (config-if-range) # exit

Result:

Thus the simulation of virtual LAN configuration using CISCO Packet Tracer has been performed and the output is verified.

Am: b) configuration of wireless LAN using cisco packet tracer.

a) what is SSID of a wireless router?
 SSID (Service Set Identifier) is the name of a wireless network. It is used to uniquely identify a wireless LAN.

b) what is a security key in a wireless router?

A security key in a wireless router is a password or encryption key used to secure a wireless network.

Result:

Thus, a wireless LAN has been configured using cisco packet tracer and the output is verified.

Danu
9/10/24