

Practical-10

Aims

Design and configure an internet work using DHCP server.

Write down the key feature of configuring router and DHCP server.

Router configuration:

- Enabling DHCP server to automatically assign IP address to devices
- providing connection to the devices

DHCP server configuration

- Automatic IP address assignment for devices joining the network
- Setting up pool ranges for dynamic IP address
- configuring default gateway

2) What is the significance of DHCP server in internet marking

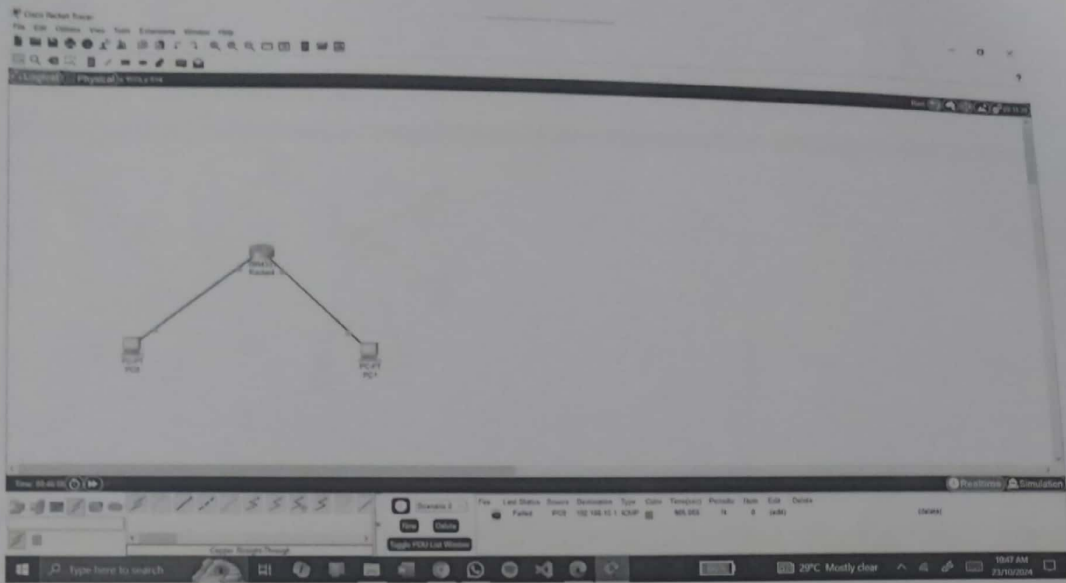
A Dynamic Host configuring protocol server simplifies IP management by dynamically assigning IP address to devices in a network, ensuring there are no conflicts and manual configuration is minimized. This allows seamless communication.

Result:

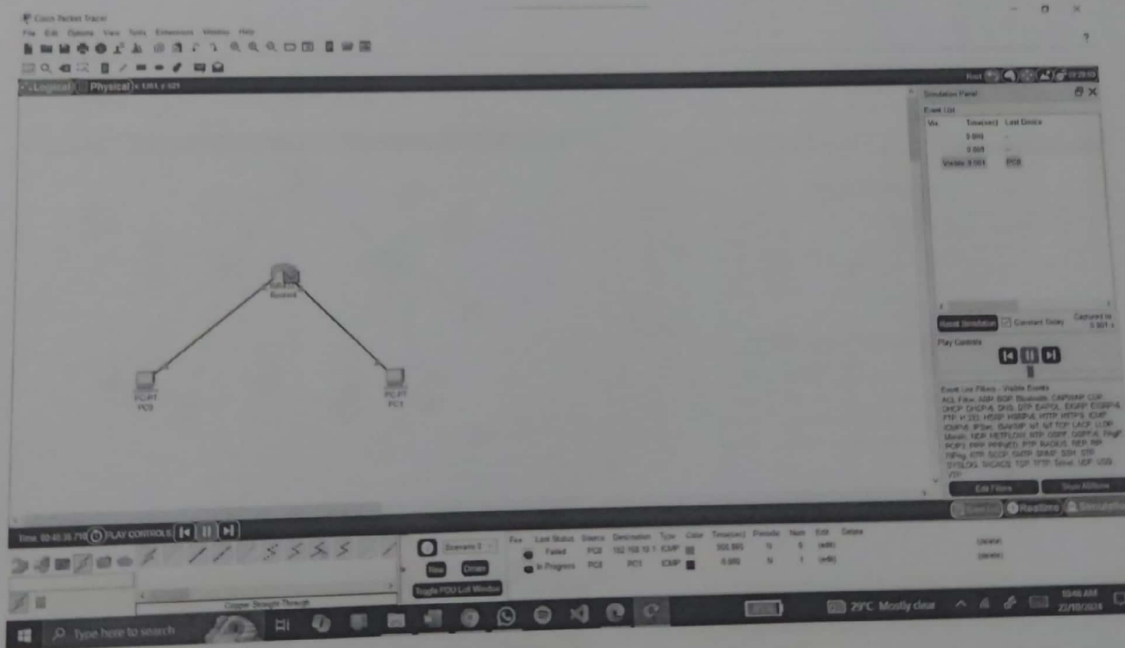
Thus an internet work using DHCP has been designed and configuration successfully.

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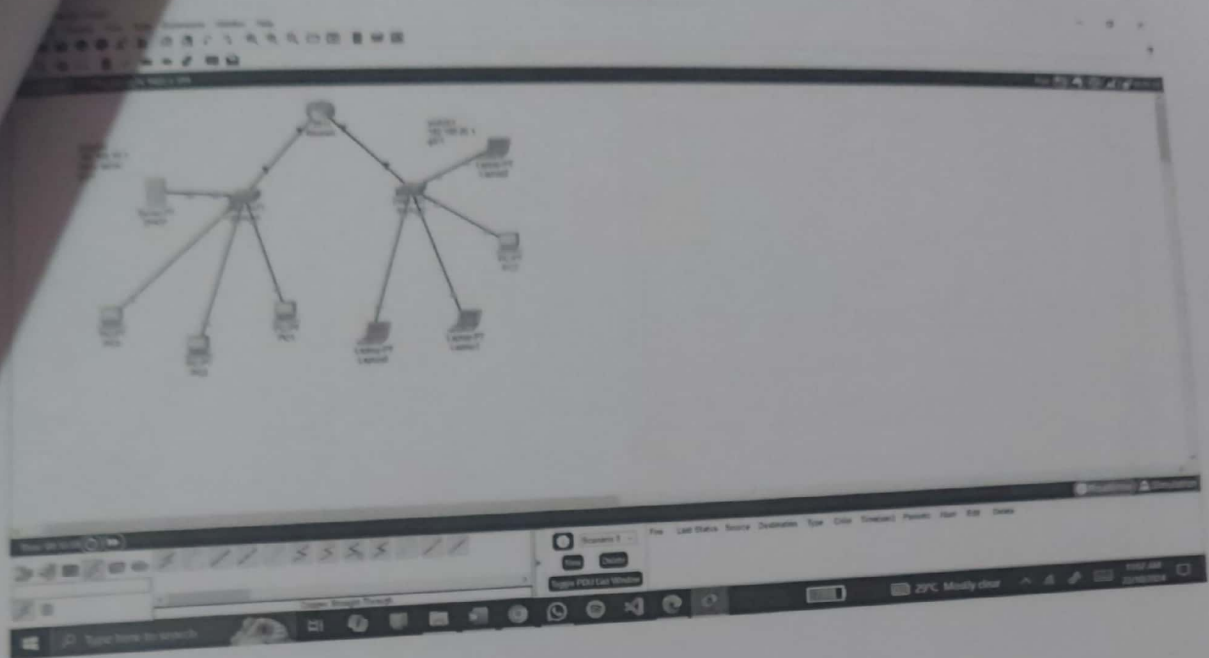
Topology:-



Sending PDU:-



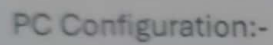
Successfully -



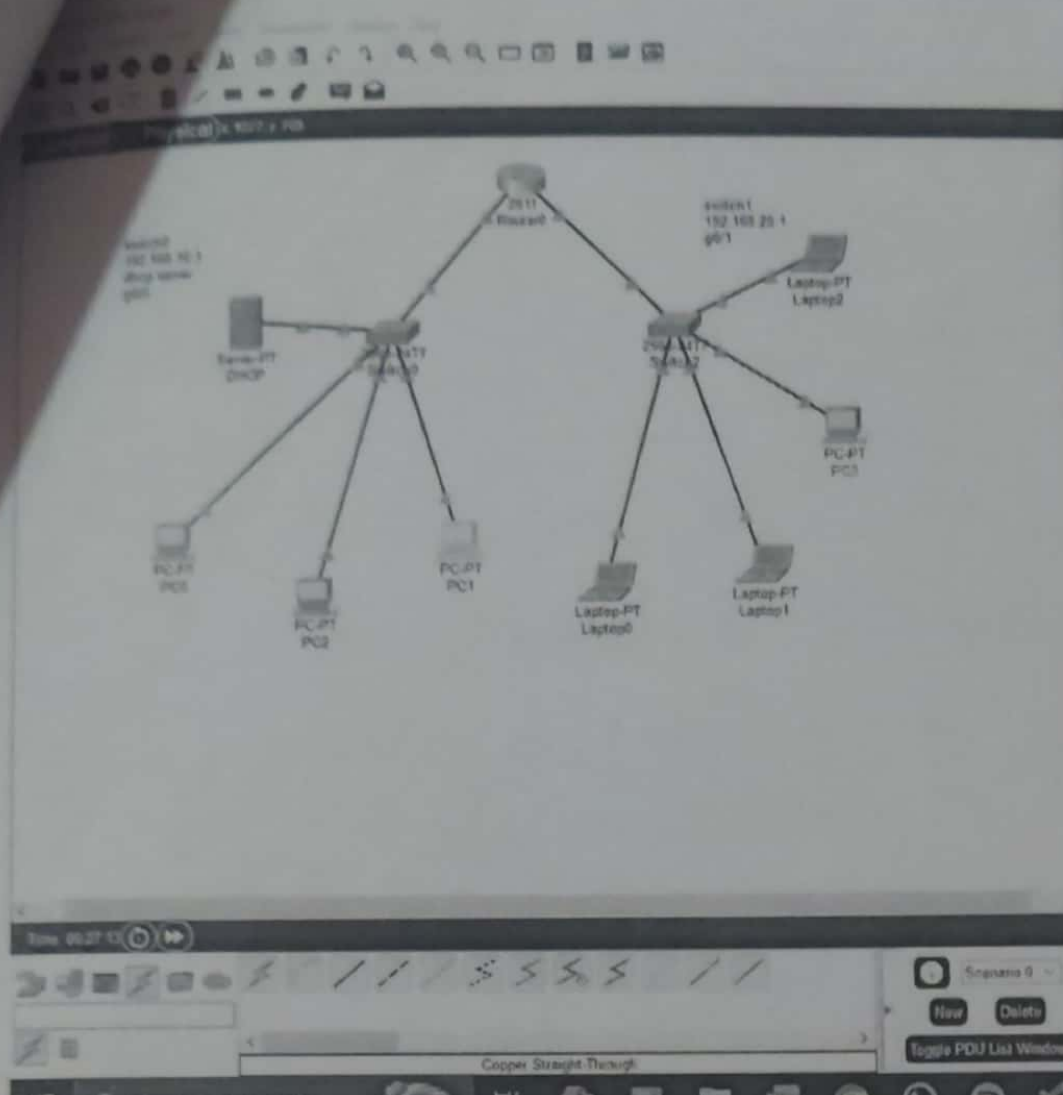
DHCP Configuration:-

The screenshot shows a network configuration tool with a DHCP configuration window open. The window displays the DHCP service settings, including the interface, pool name, default gateway, DNS server, and IP address range.

Pool Name	Default Gateway	DNS Server	Start IP Address	End IP Address	Subnet Mask	Lease Time	Start Time	End Time
pool1	192.168.1.1	192.168.1.1	192.168.1.10	192.168.1.254	255.255.255.0	24		
pool2	192.168.1.1	192.168.1.1	192.168.1.10	192.168.1.254	255.255.255.0	24		
pool3	192.168.1.1	192.168.1.1	192.168.1.10	192.168.1.254	255.255.255.0	24		

[illegible]

Checking Connection:-



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PC1
Physical Config Desktop Programming Statistics

Command Prompt

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 192.168.10.4

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:\>
  
```