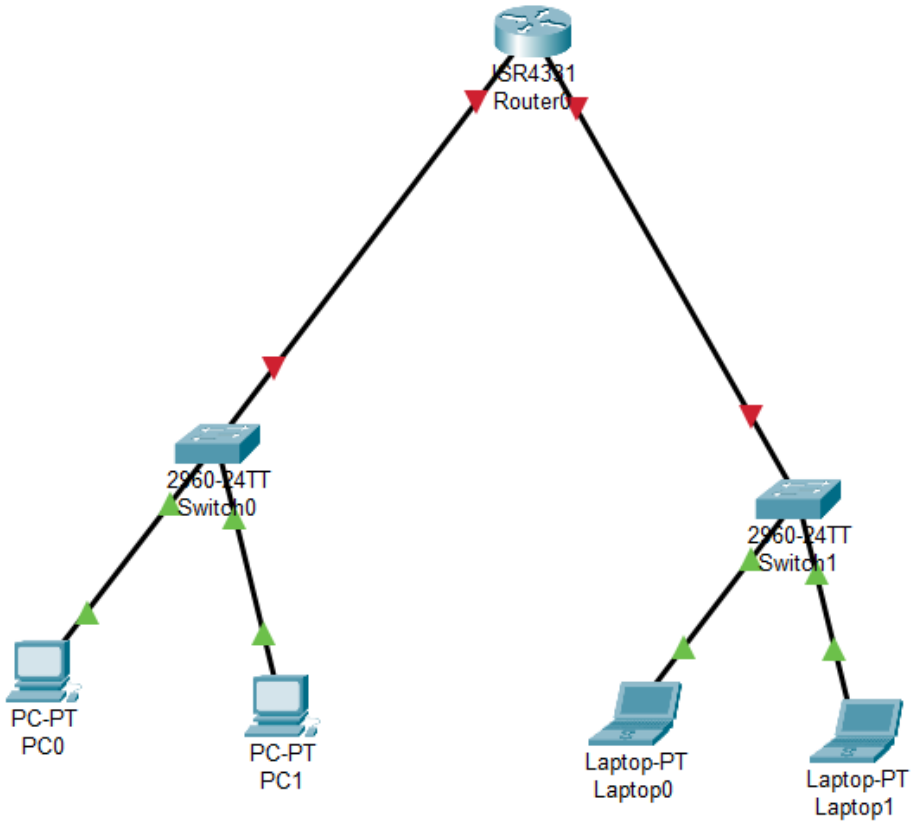
Marwadi University Marwadi Chandarana Group	**Marwadi University** **Faculty of Engineering and Technology** **Department of Information and Communication Technology**	
Subject: Computer Networks (01CT0503)	**Aim: Configure** DHCP server.	
Experiment No: 9	**Date:**	**Enrolment No: 92301733041**

Aim:

Step 1: make physical connection of switch, and pc using straight copper cable and serial cable



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Step 2: assign the ip to routers port

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int g0/0/0
Router(config-if)#ip add 10.0.0.0 255.0.0.0
Bad mask /8 for address 10.0.0.0
Router(config-if)#ip add 10.0.0.1 255.0.0.0
Router(config-if)#int g0/0/0
Router(config-if)#ip add 20.0.0.1 255.0.0.0
Router(config-if)#exigt
                   ^


Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int g0/0/0
Router(config-if)#ip add 10.0.0.0 255.0.0.0
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                   ^
```

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Step 3: Now route using dhcp protocol ans we exclude the port address from that network so it will not assign to any other device and tehn we create a pool and assign the network ip , then we assign default router gateway then dns , so by doing this it will automatically assign ip add , subnet mask, gateway , and dns server to it when u click dhcp instead of static in ip config tab of end device

```
% Invalid input detected at '^' marker.

Router(config-if)#exit
Router(config)#ip dhcp exc
Router(config)#ip dhcp excluded-address 10.0.0.1
Router(config)#ip dhcp pool mal02
Router(dhcp-config)#net
Router(dhcp-config)#network 10.0.0.0 255.0.0.0
Router(dhcp-config)#defaul
Router(dhcp-config)#default-router 10.0.0.1
Router(dhcp-config)#dn
Router(dhcp-config)#dns-server 8.8.8.8
Router(dhcp-config)#exit
Router(config)#dhcp exclude
Router(config)#dhcp exclude
Router(config)#dh
Router(config)#dhcp ex
Router(config)#dhcp exc
Router(config)#ip dhcp excluded-address 20.0.0.1
Router(config)#ip dhcp pool mal15
Router(dhcp-config)#net
Router(dhcp-config)#network 20.0.0.0 255.0.0.0
Router(dhcp-config)#def
Router(dhcp-config)#default-router 20.0.0.1
Router(dhcp-config)#dn
Router(dhcp-config)#dns-server 9.9.9.9
Router(dhcp-config)#exit
Router(config)#int g0/0/0
Router(config-if)#no
Router(config-if)#no
Router(config-if)#no s
Router(config-if)#no sh
Router(config-if)#no shutdown

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up
```

Step 4: Verify the connection

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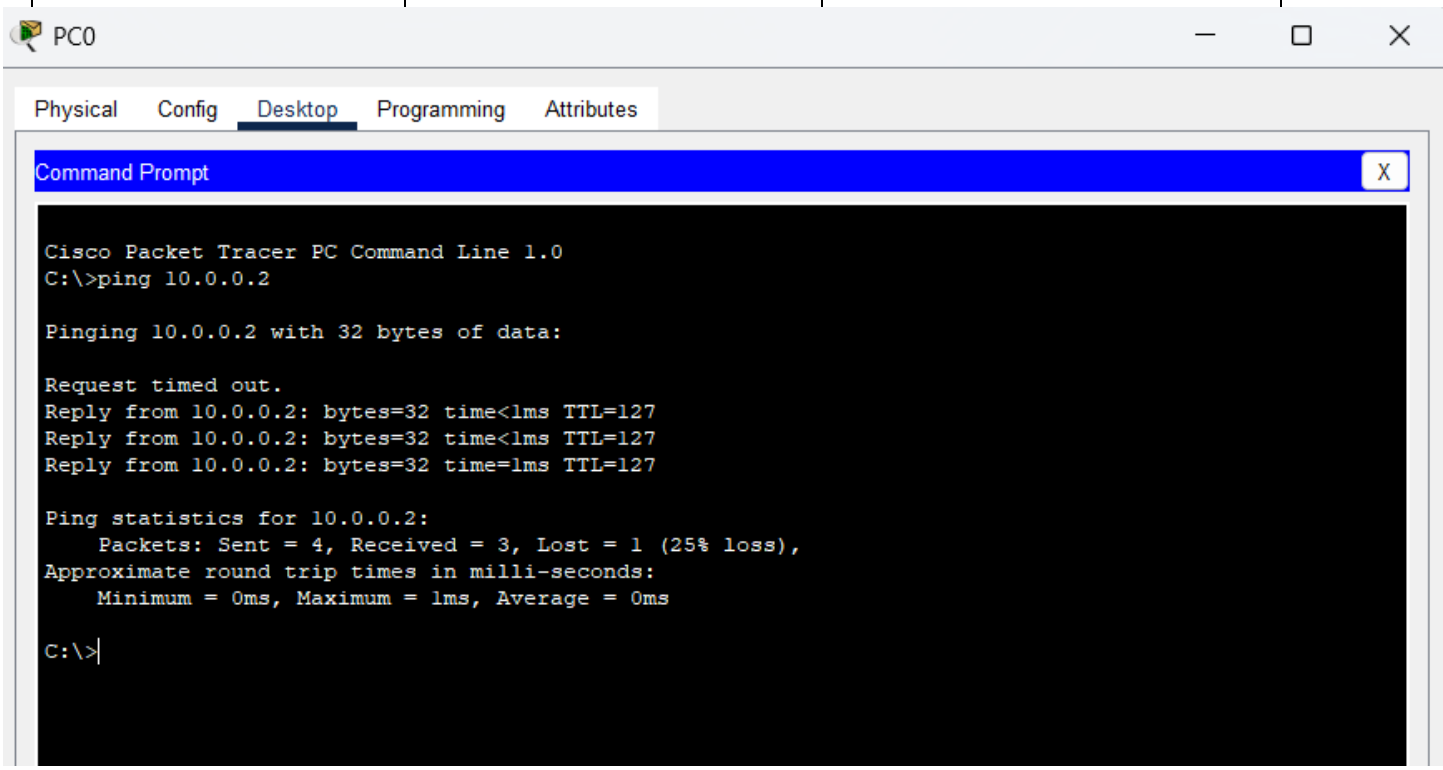

Conclusion: In this exp , I learnt about another dynamic protocol i.e., DHCP(dynamic host configuration protocol) in which we tell the router to assign ip add, subnet mask , gateway and DNS server to all end device which are in its network via dhcp commands. In this we first exclude a network which is already assigned to the port of router and then make a pool of remaining networks and also tell the default gateway and dns.
By doing this router will now automatically assign ip add , subnet mask, gateway and dns to existing as well as newly connected end devices .