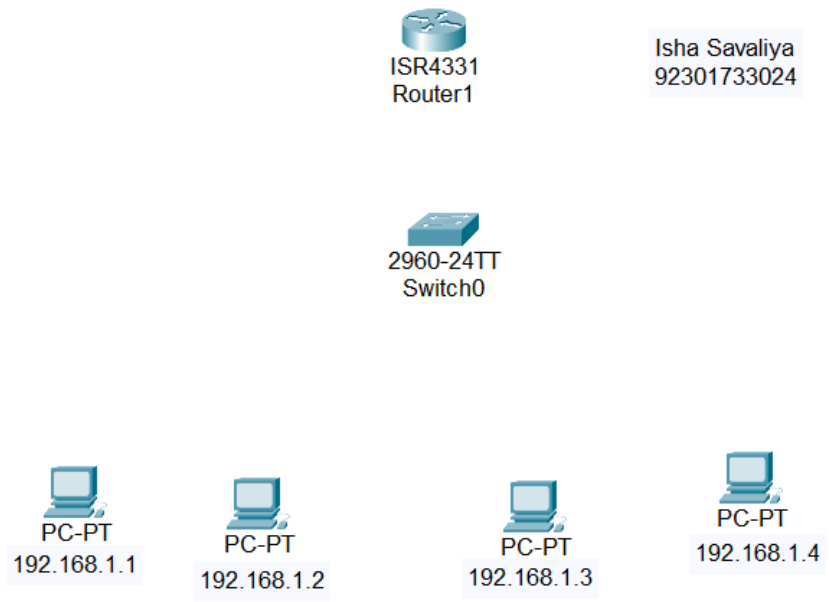
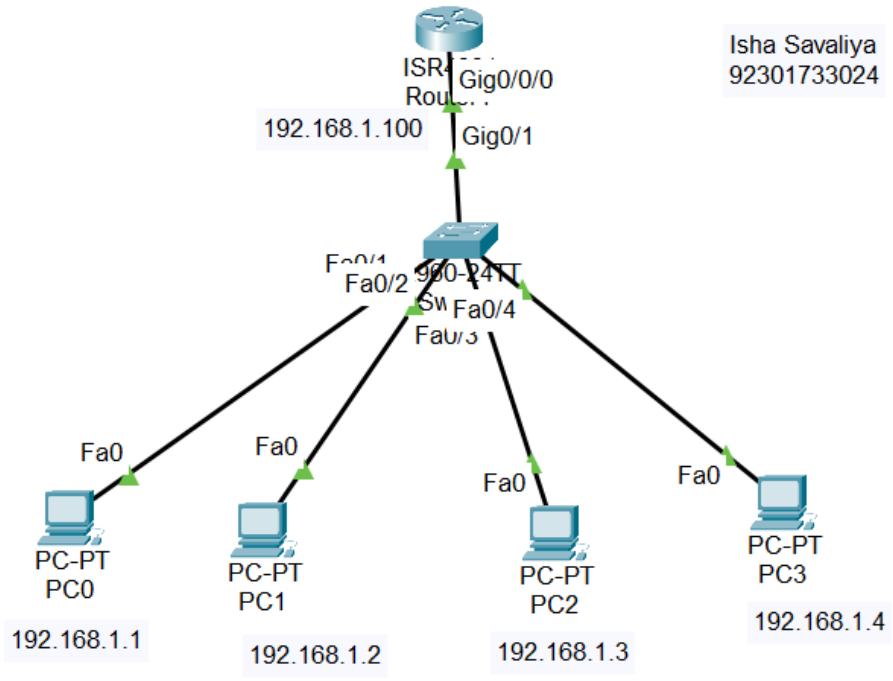
Marwadi University Marwadi Chandarana Group	**Marwadi University** **Faculty of Engineering and Technology** **Department of Information and Communication Technology**	
Subject: Computer Networks (01CT0503)	**Aim: Configure DHCP server.**	
Experiment No: 09	**Date: 01-10-2025**	**Enrolment No: 92301733024**

Step – 1:- Open Cisco Packet Tracer and take one Router, one Switch, and four PCs.



Step – 2 : Connect the PCs to the Switch (FastEthernet) and the Switch to the Router (GigabitEthernet) using copper straight-through cables.



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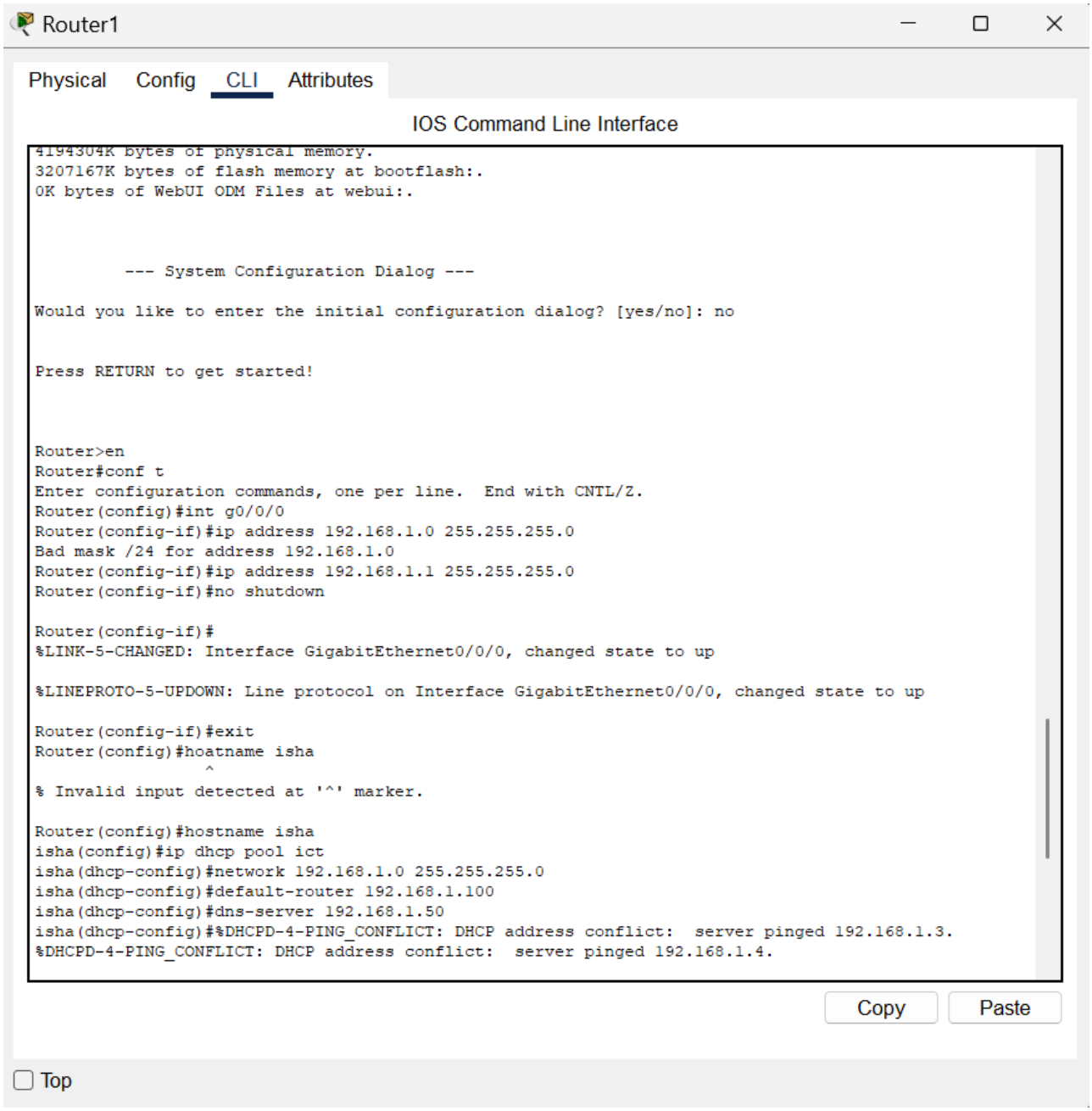
Step – 3 :- Assign the IP Address to the the Routers. Create IP DHCP Pool for network 192.168.1.0



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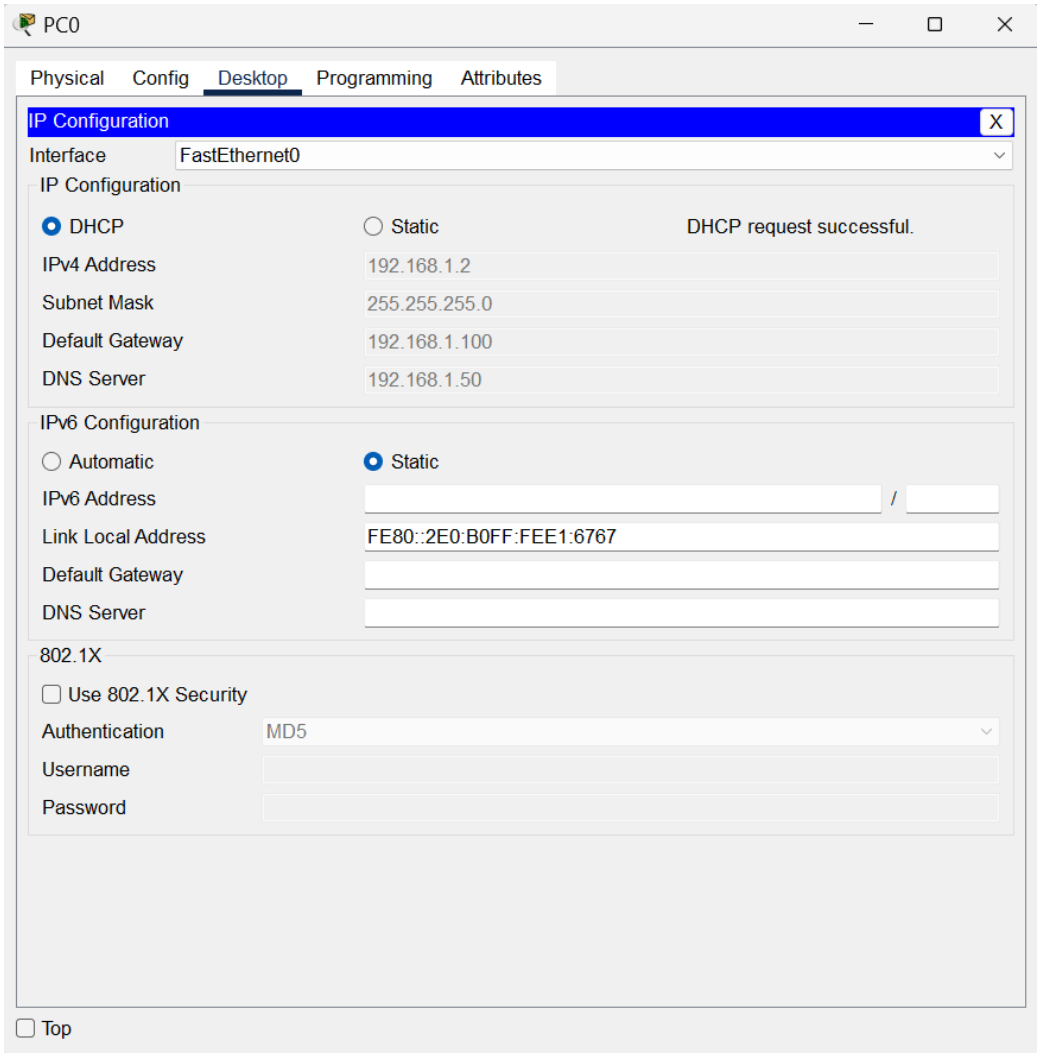
- **ip dhcp pool ict:-** This command creates a new DHCP pool called iict. A DHCP pool is a range of IP addresses that can be assigned dynamically to clients on the network.

- **network 192.168.1.0 255.255.255.0 :-** This command specifies the network address and the subnet mask for the DHCP pool. In this case, the network is 192.168.1.0 with a subnet mask of 255.255.255.0. The DHCP server has the provision to assign an IP address to any of the clients connecting to it within the range of 192.168.1.1-192.168.1.254.

- **default-route 192.168.1.100** :- this command specifies the default gateway.

- **dns-server 192.168.1.50 :-** this will provide the address of DNS server.

Step – 9 :- Configure the PCs to obtain their IP addresses using DHCP.



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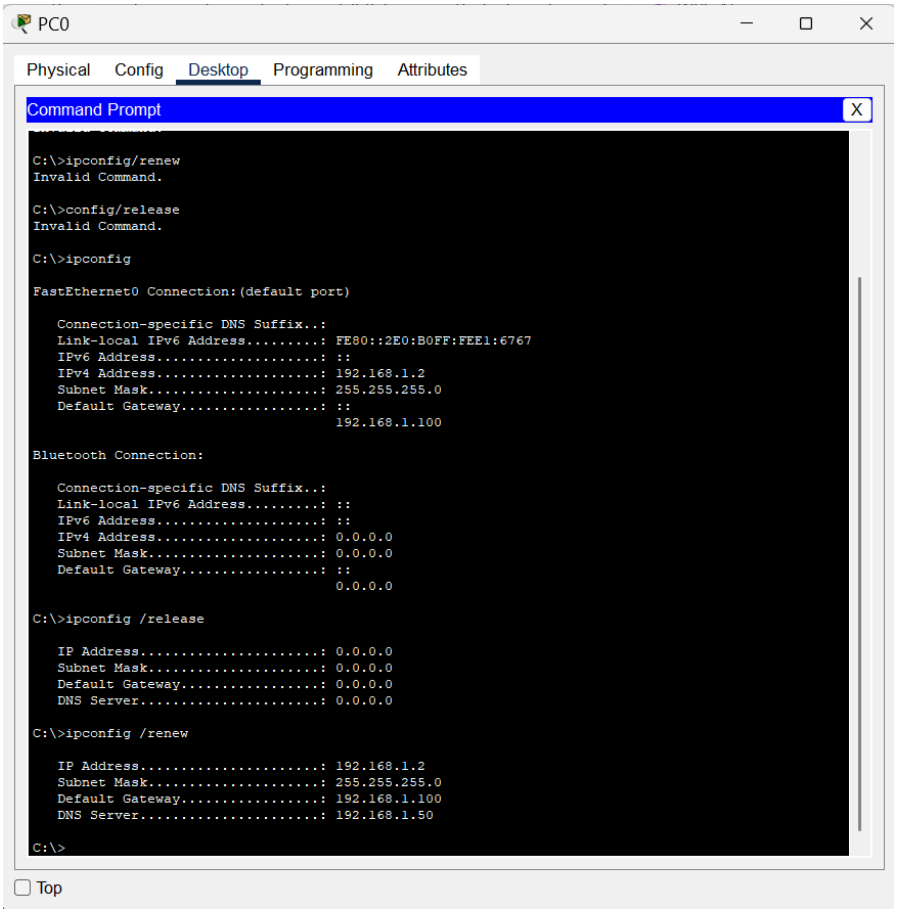
Step – 10 :- Use the release IP address command to test reassignment.



Conclusion :-

By performing this experiment,i learned how to configure a router as a DHCP server. We created an IP pool, assigned a range of IP addresses, set the DNS server address, and defined the default gateway. This helped us establish successful communication while ensuring efficient use of IP addresses and minimizing wastage.