Lab 4: Implementing DHCP on a Router

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Aim: Configure a router to provide DHCP services to a network.

Objectives:

1. Set up a DHCP server on a router.
2. Configure network devices to obtain IP addresses automatically.
3. Verify the DHCP configuration.

Steps:

1. **Open Cisco Packet Tracer:**
   ○ Create a new project.

2. **Add Devices:**
   ○ **Add a Router:** Drag a router (e.g., 2911).
   ○ **Add PCs:** Drag multiple PCs and connect them to the router via a switch.

3. **Configure DHCP on the Router:**

Access the router CLI and configure DHCP:
bash
Copy code

```
Router> enable
Router# configure terminal
Router(config)# ip dhcp pool LAN_POOL
Router(config-dhcp)# network 192.168.1.0 255.255.255.0
Router(config-dhcp)# default-router 192.168.1.1
Router(config-dhcp)# exit
```

4. **Configure PCs to Obtain IP Addresses Automatically:**
   - On each PC, go to the Desktop tab, open IP Configuration, and select "DHCP."
5. **Verify DHCP Configuration:**
   - On each PC, use the Command Prompt to check the assigned IP address with the `ipconfig` command.