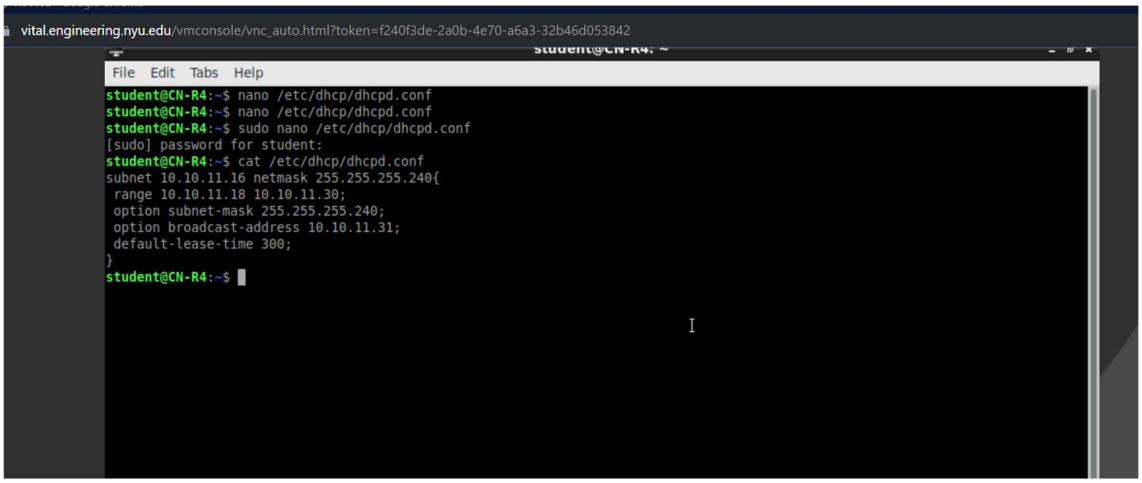
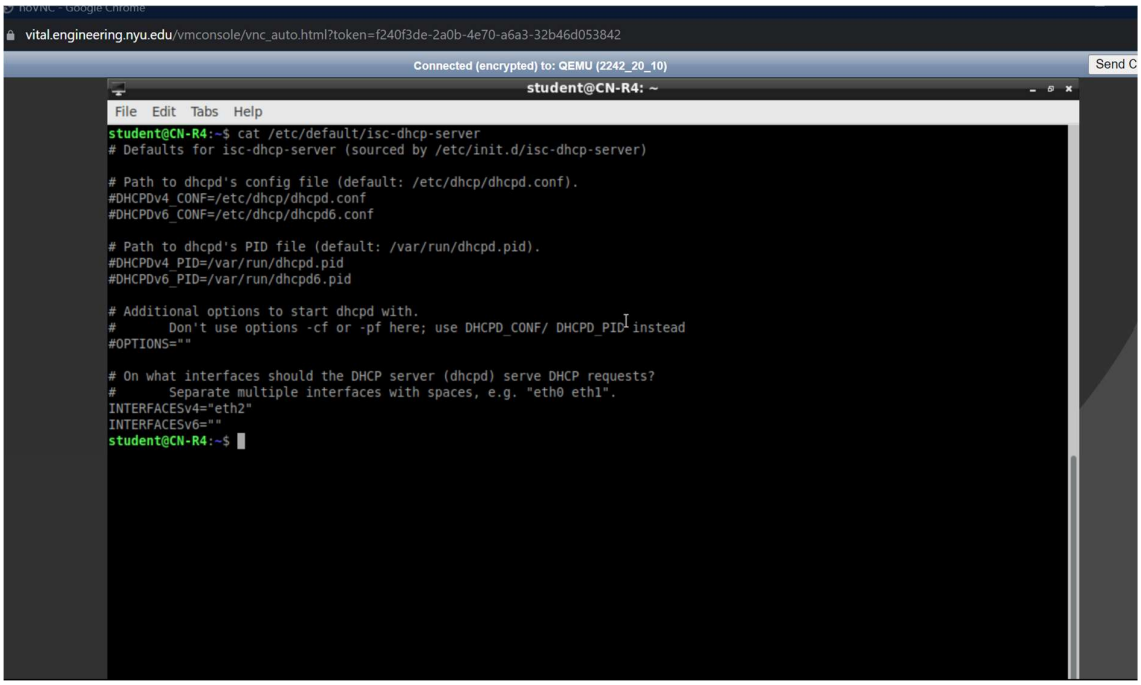
CN Assignment- DHCP Server Lab

Part 1: Configuring DHCP

In order to configure the dhcpd.conf (DHCP daemon configuration) file in router R4, I opened the file present in the /etc/dhcp directory and made edits to set default-lease-time to 300.
IP assigned to R4: 10.10.11.17/28
Subnet mask: 10.10.11.16 broadcast address: 10.10.11.31
Usable range: 10.10.11.17 - 10.10.11.30

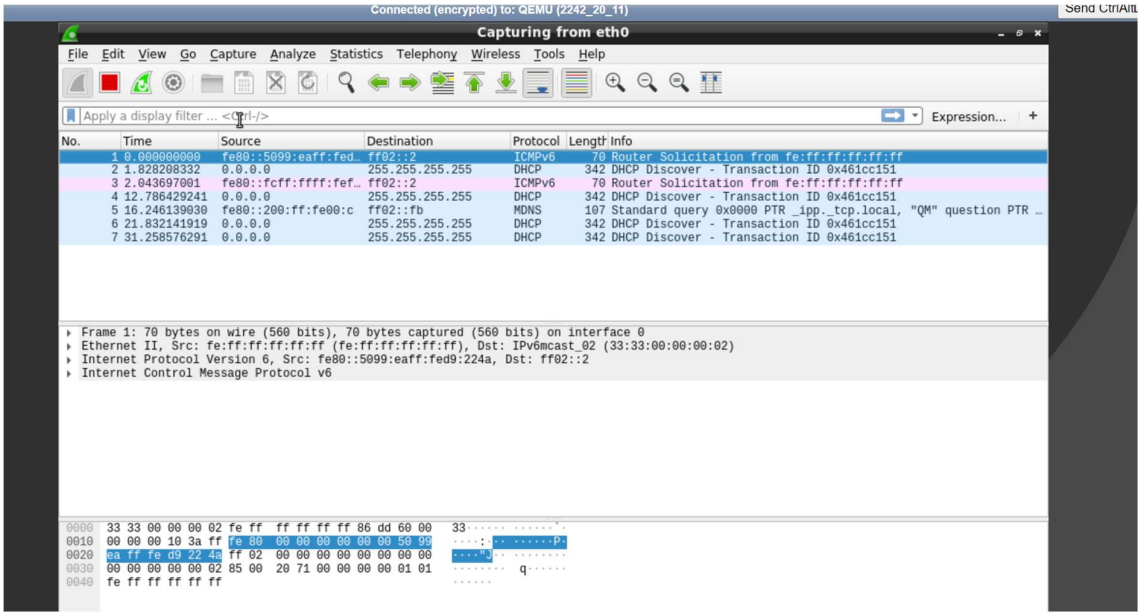


Part 2: Server Interface
Gave the command cat /etc/default/isc-dhcp-server

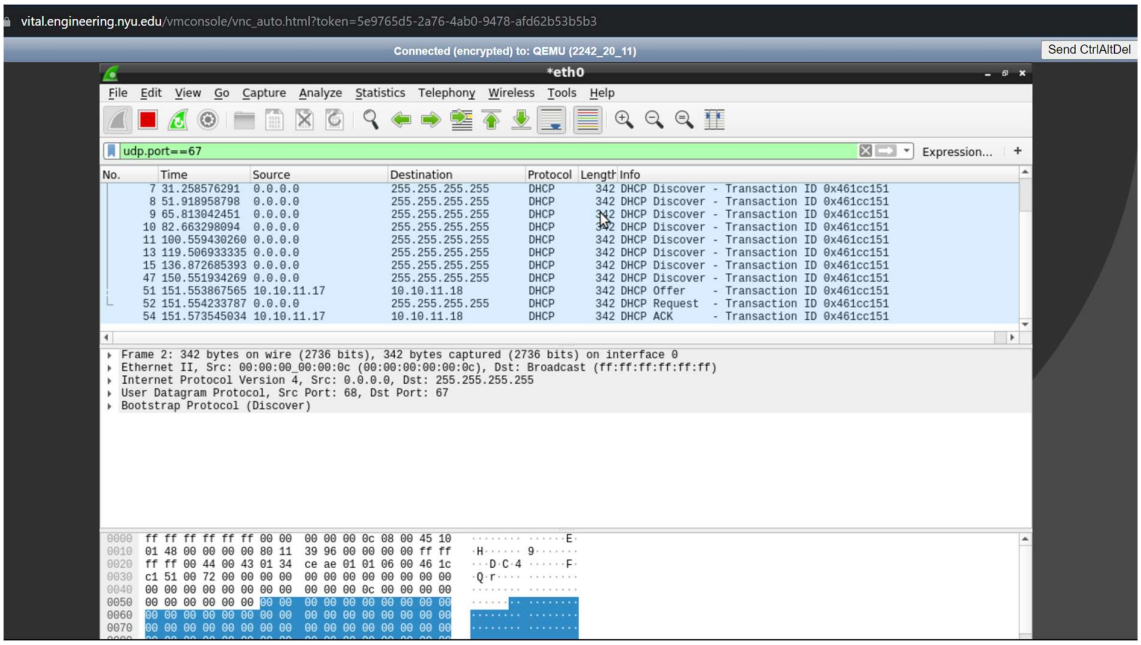


Part 3: Verifying DHCP and Wireshark

Wireshark packets before R4 was powered on

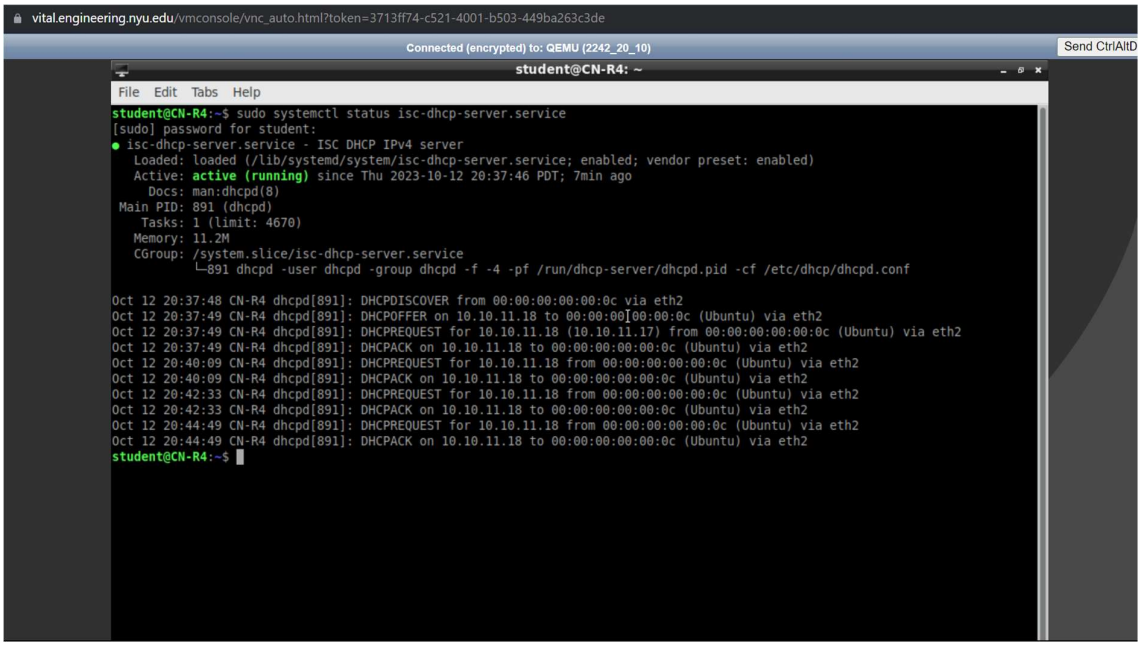


Wireshark screenshot after R4 is powered ON. We can see all 4 - Discover, Offer, Request, ACK



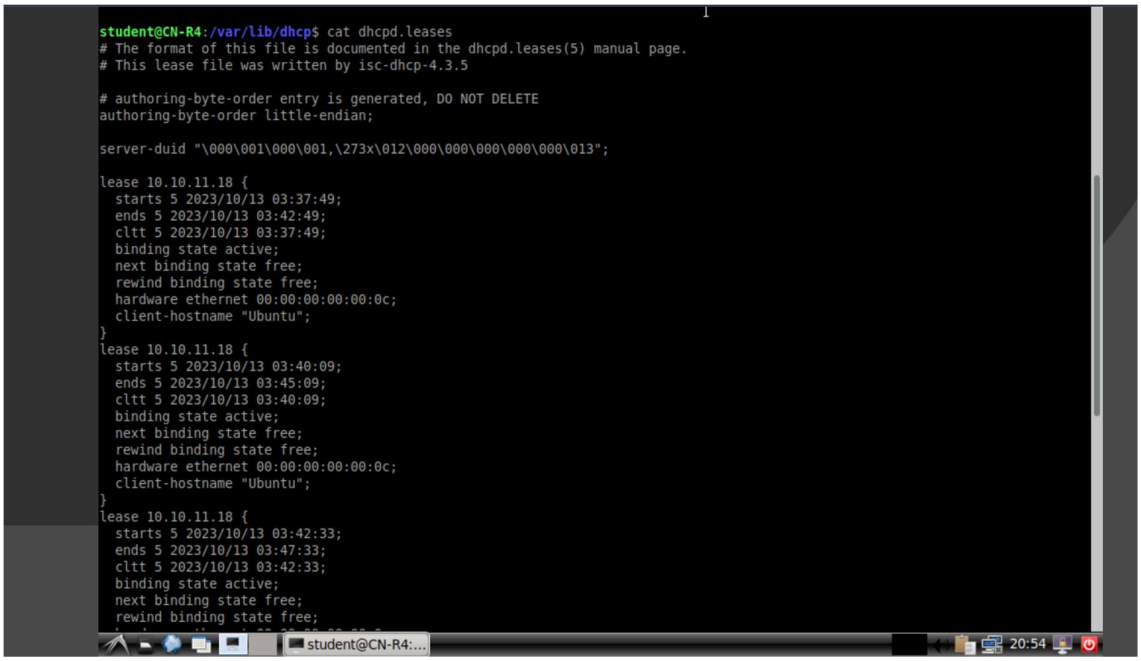
Verification that the DHCP server is running properly on R4 by using the following command:

sudo systemctl status isc-dhcp-server.service

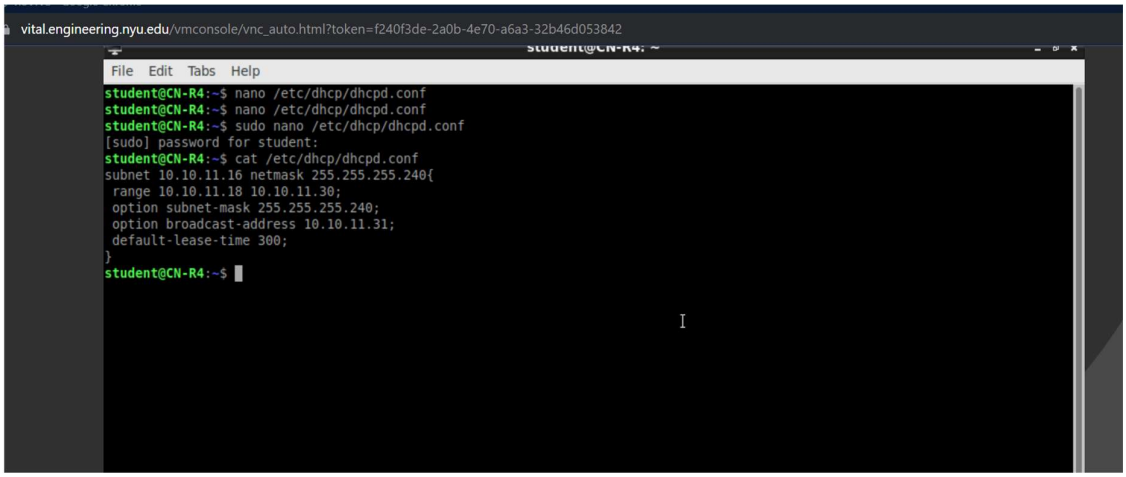


Submissions

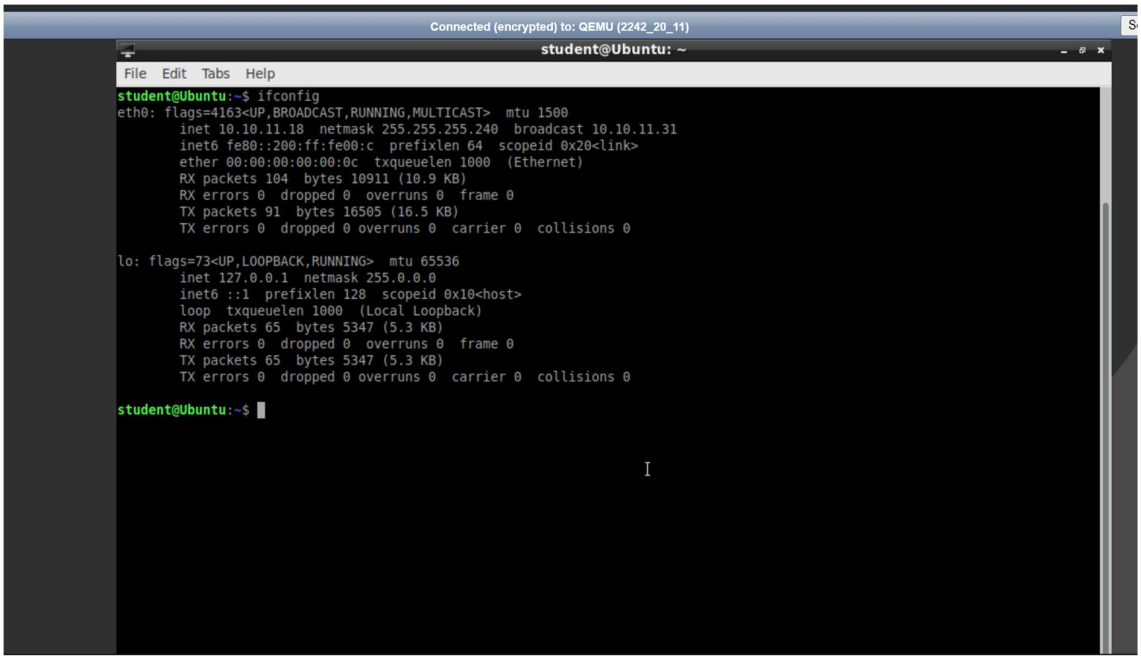
1. The leases file on R4 found in /var/lib/dhcp/dhcpd.leases



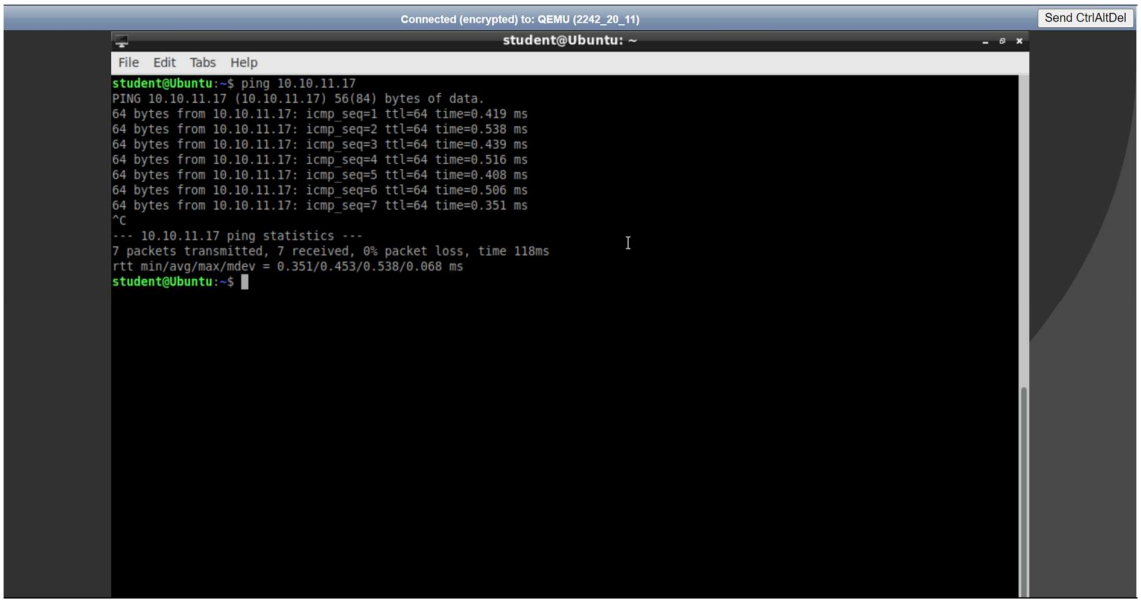
2. Your configuration for the DHCP server.



3. Screenshot of ifconfig on Ubuntu.



4. Screenshot showing Ubuntu pinging R4.



5. Screenshot showing Wireshark DHCP messages (4 Types).
In this screenshot, we can see 4: DHCP Discover, DHCP Offer, DHCP Request, DHCP ACK.