Week 6

Virtual Private Network Lab

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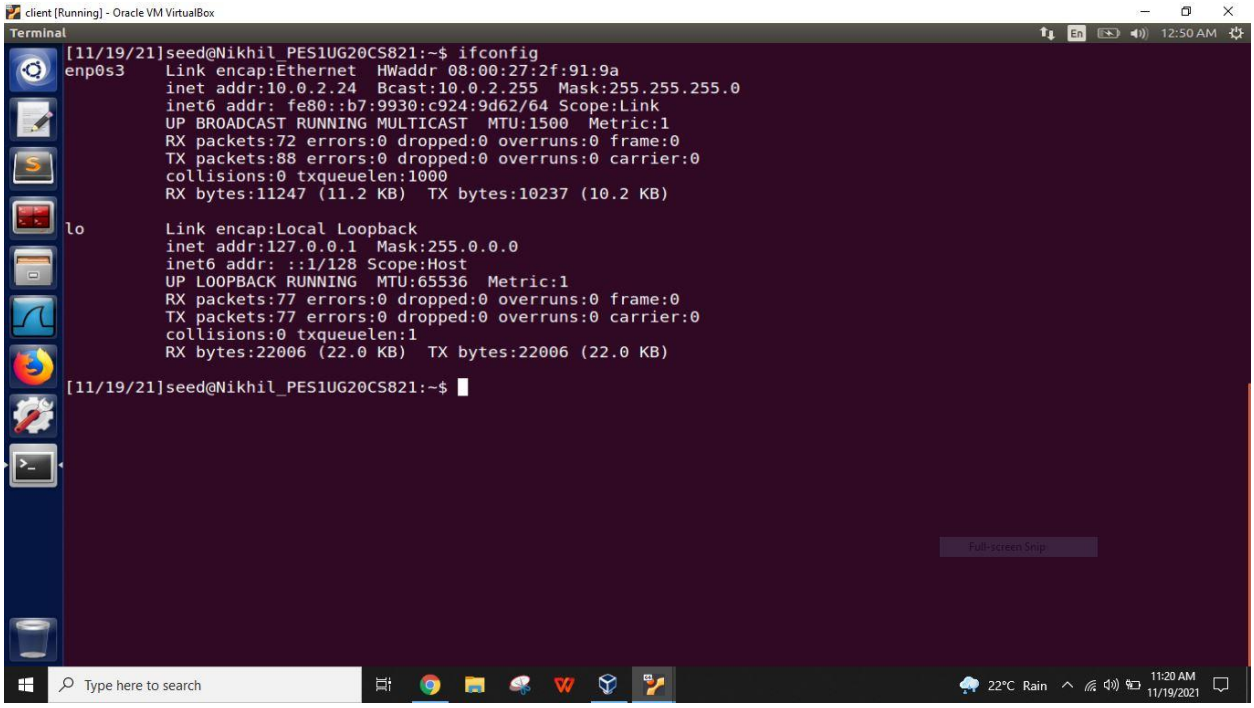
Section:F

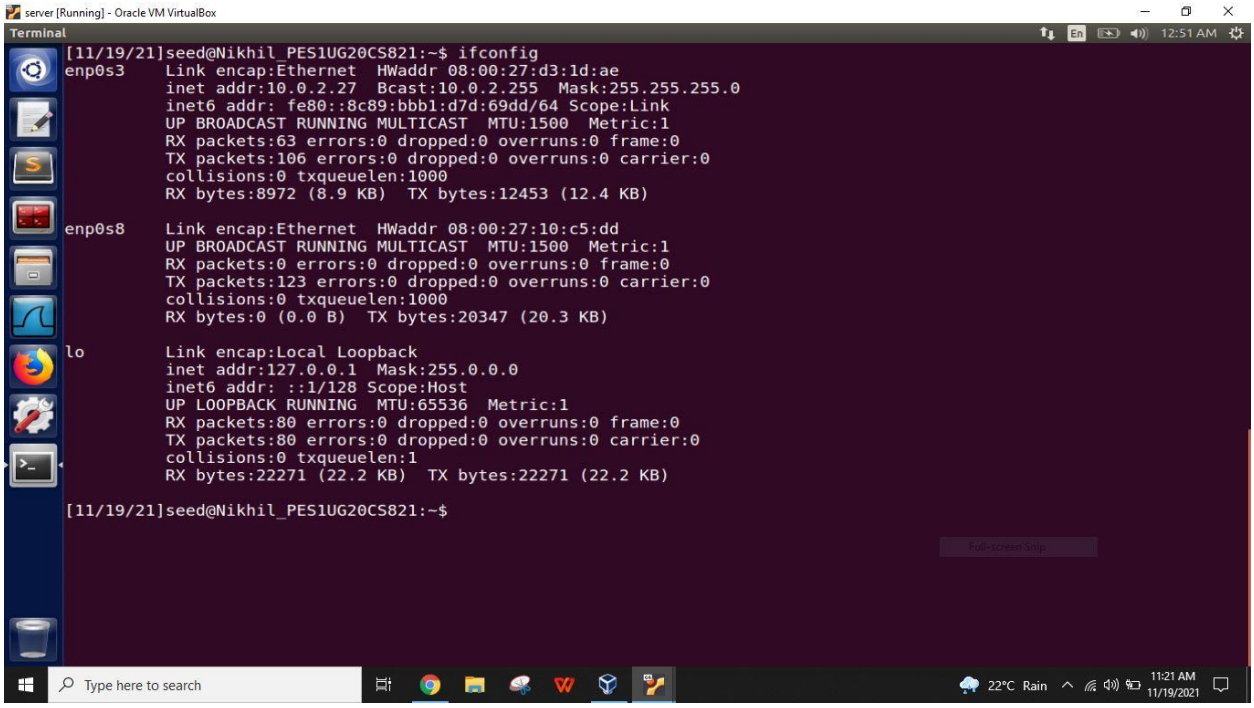
Task 1: VM Setup

we use 3 VM's client,server and host v

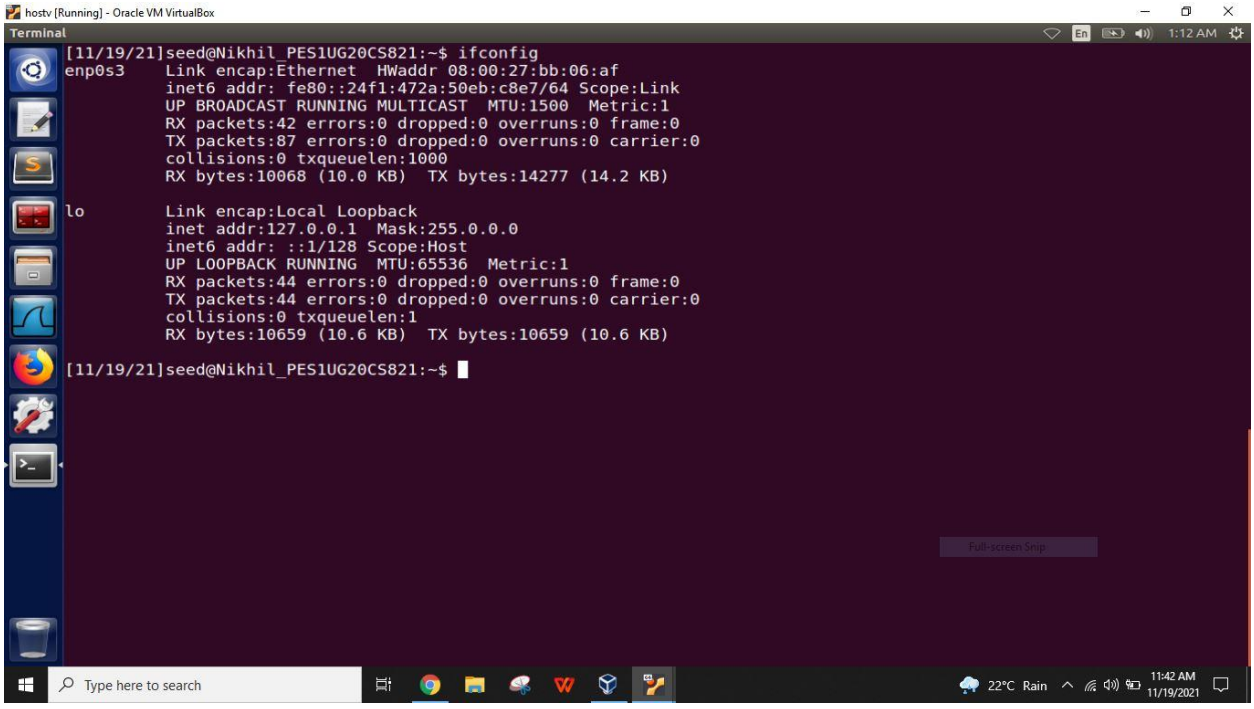
VPN client – Adapter 1 – NAT Network



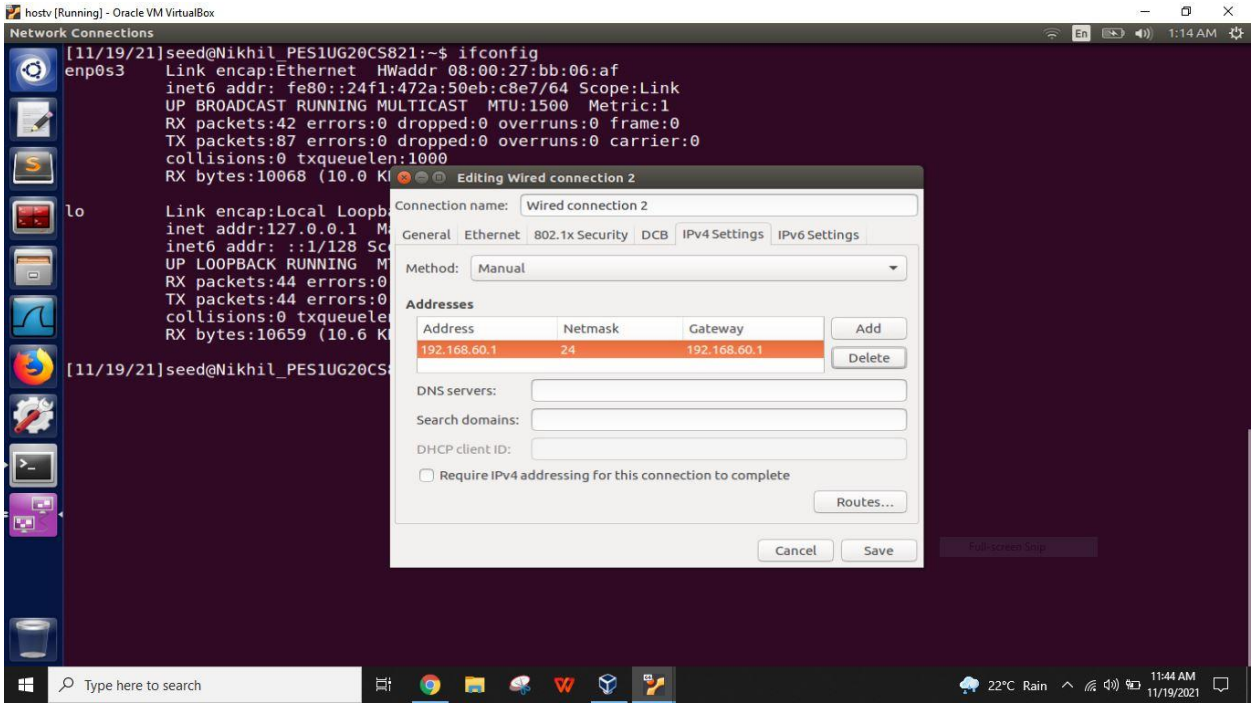
VPN Server – Adapter 1 – NAT network, Adapter 2 – Internal Network



HOST V – Adapter 1 – Internal Network

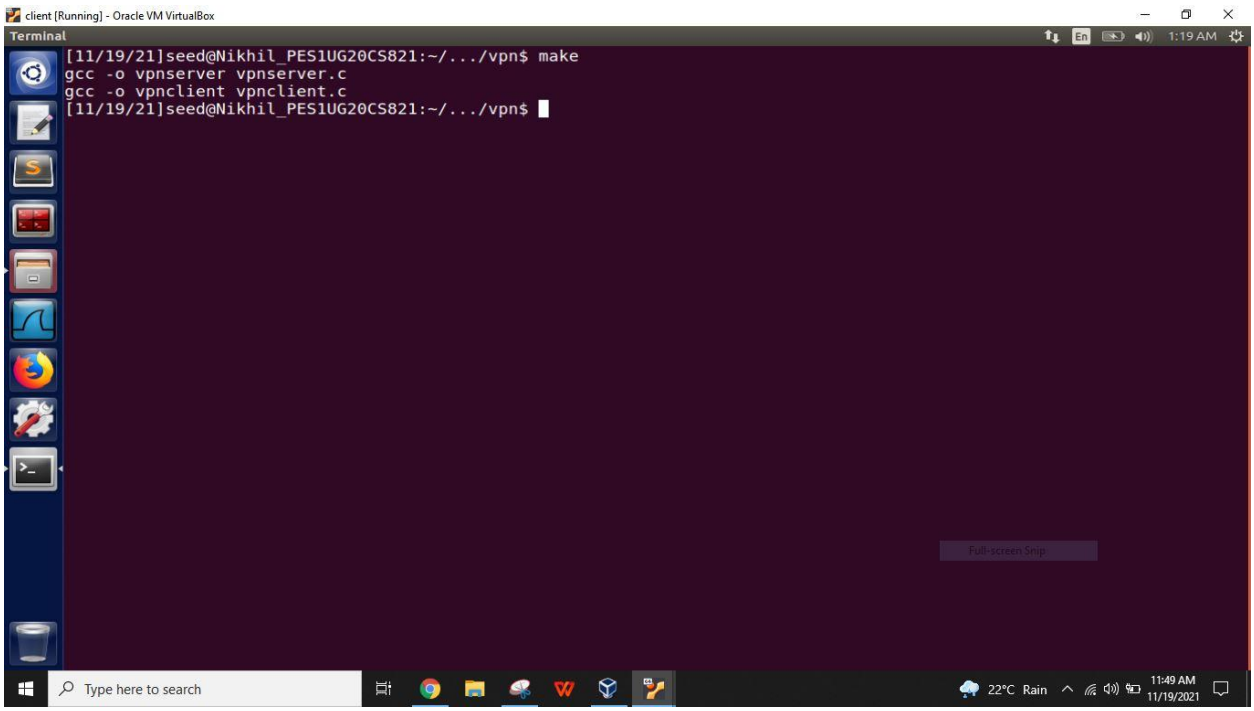


We add the gateway to the host v VM



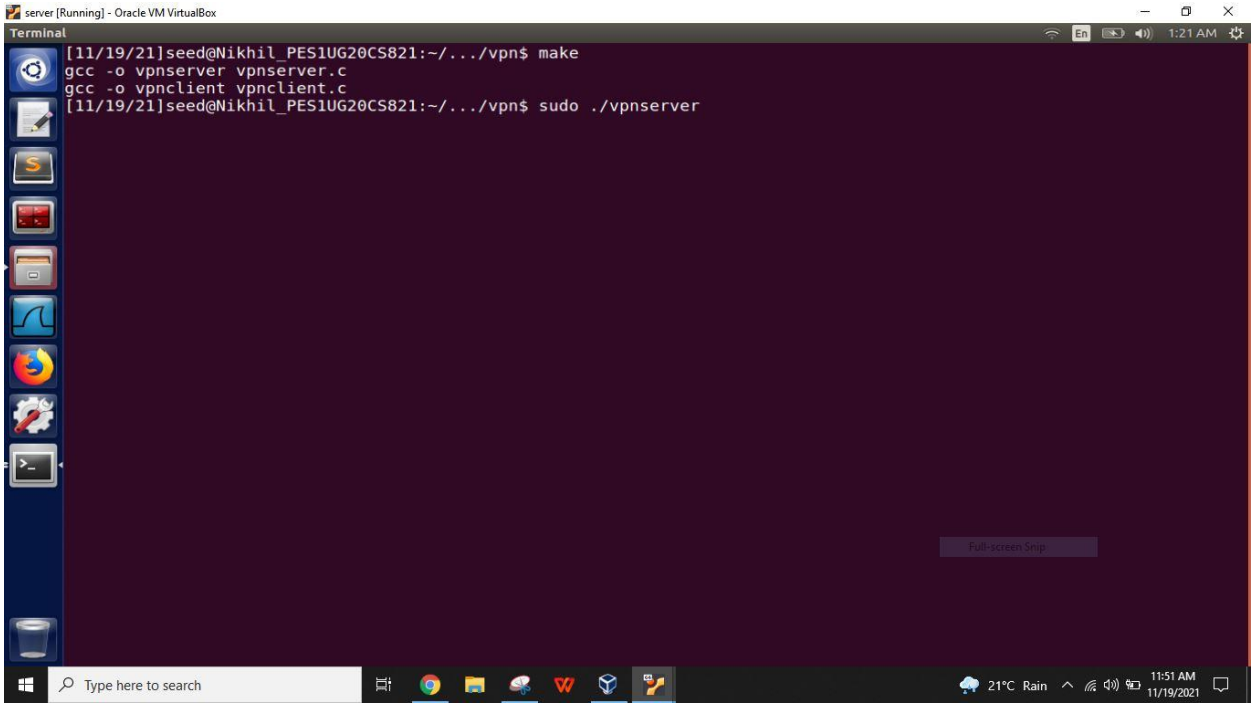
Task 2: Creating a VPN Tunnel using TUN/TAP

First we build the make file using the command make on both the VM cilent and server

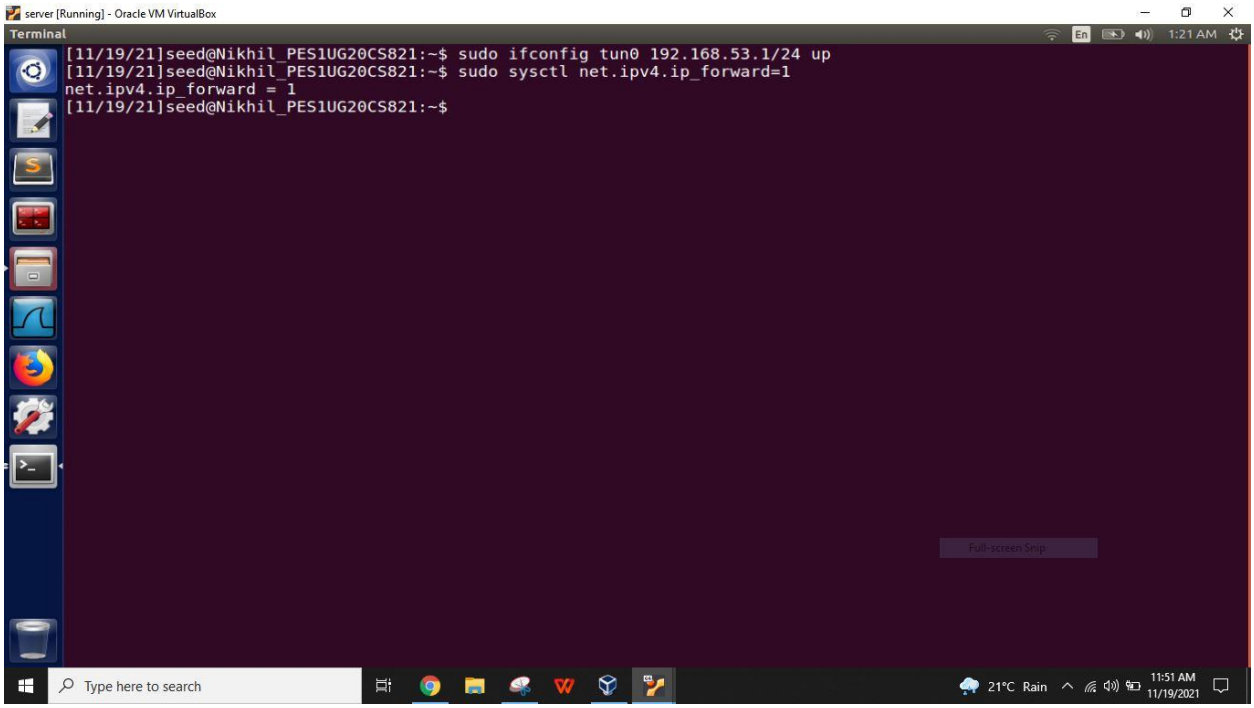


Step 1: Run VPN server and set it's IP address of the interface – (Run on VPNServer VM)

Next we run the file vpnserver.c in the server VM

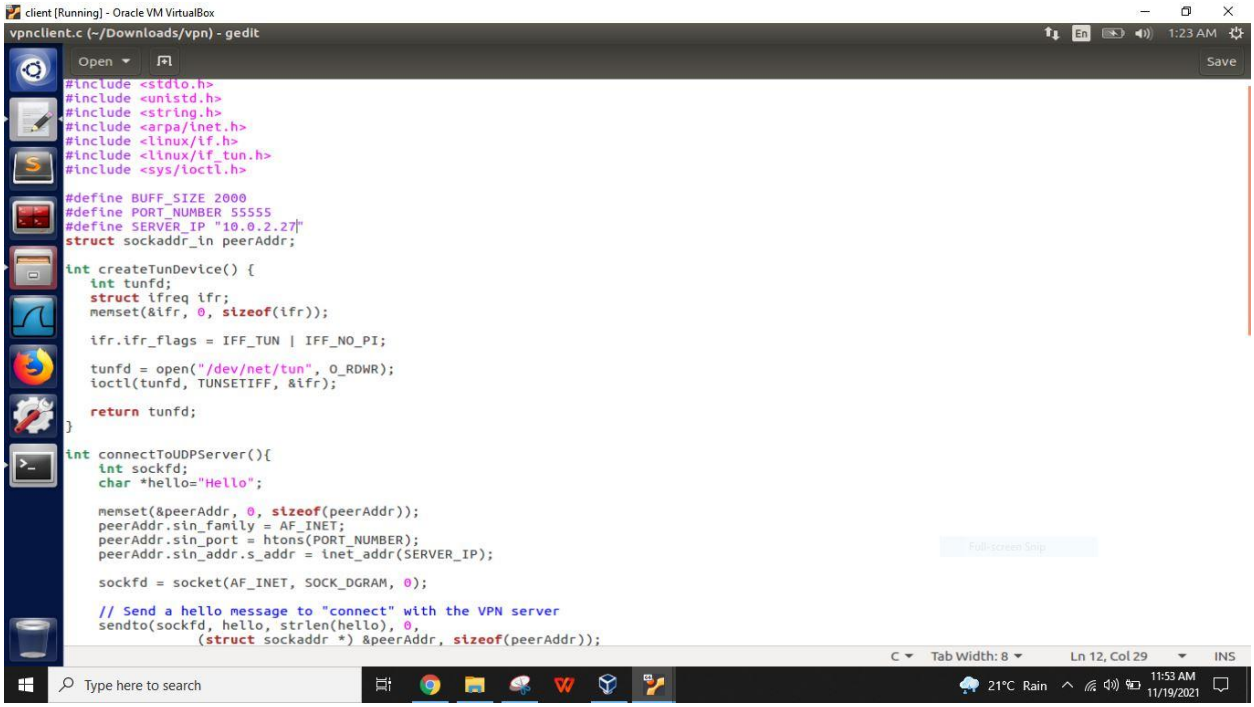


Later we add the new interface tuno and set the ip forwarding

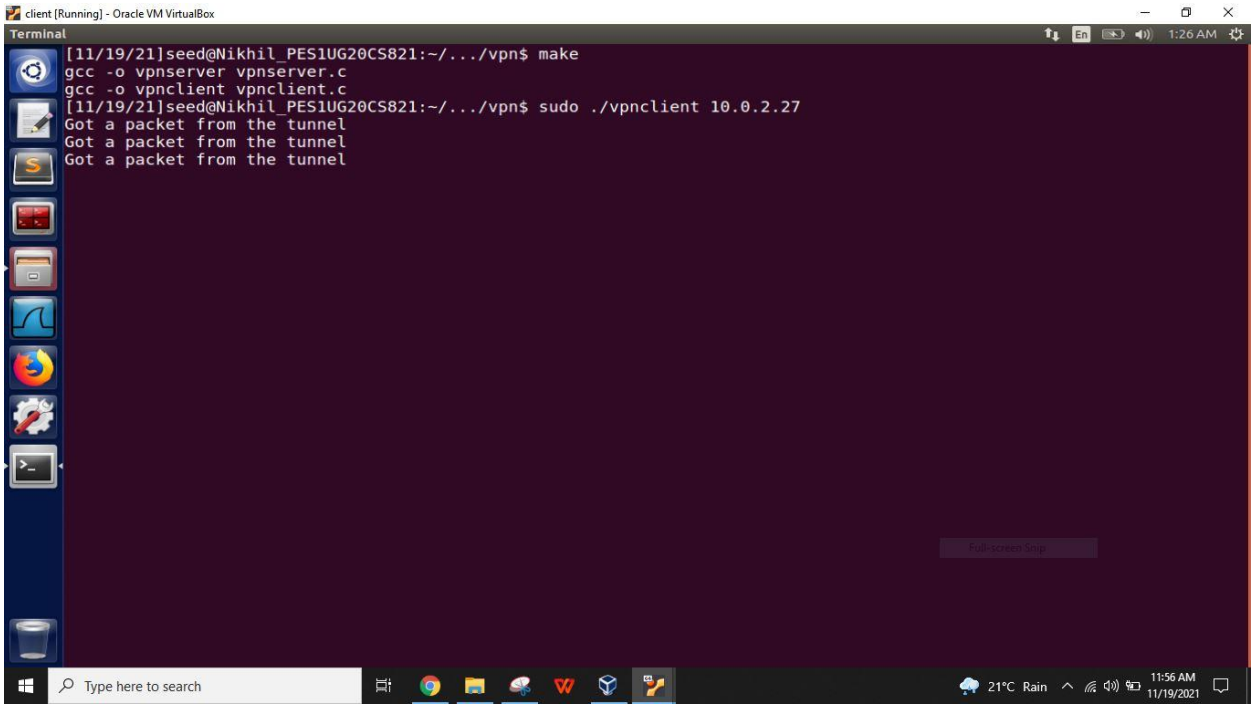


Step 2: Run VPN Client and set IP address of the interface - (Run on VPNClient VM)

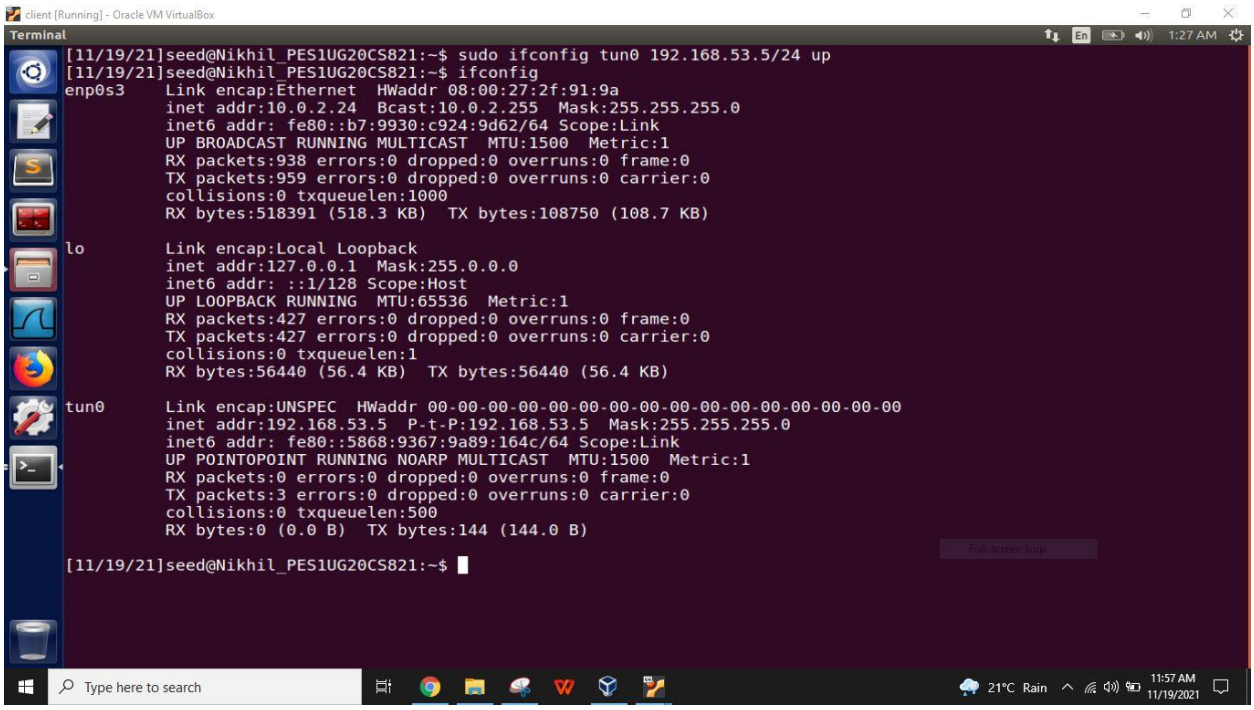
We run the below code in the client VM



And we try to establish the connection to the server VM by running vpnclient.c file

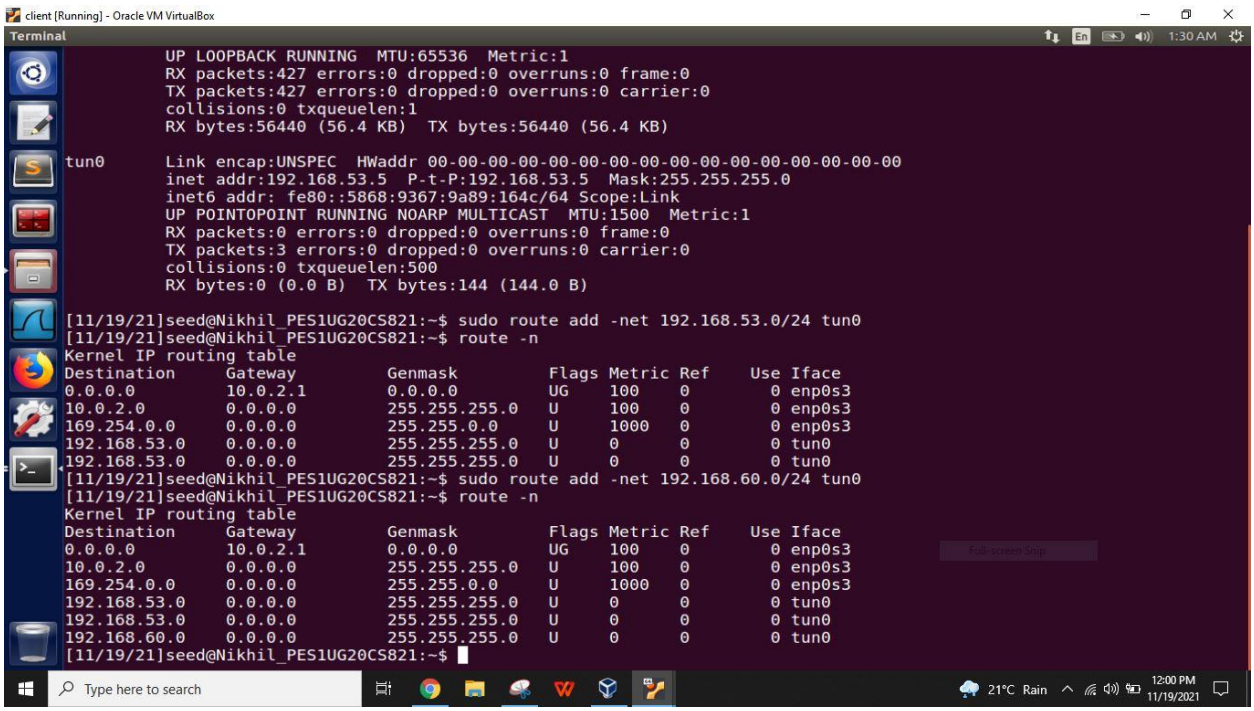


And we add new interface tun0 in the client Vm and we set the IP forwarding

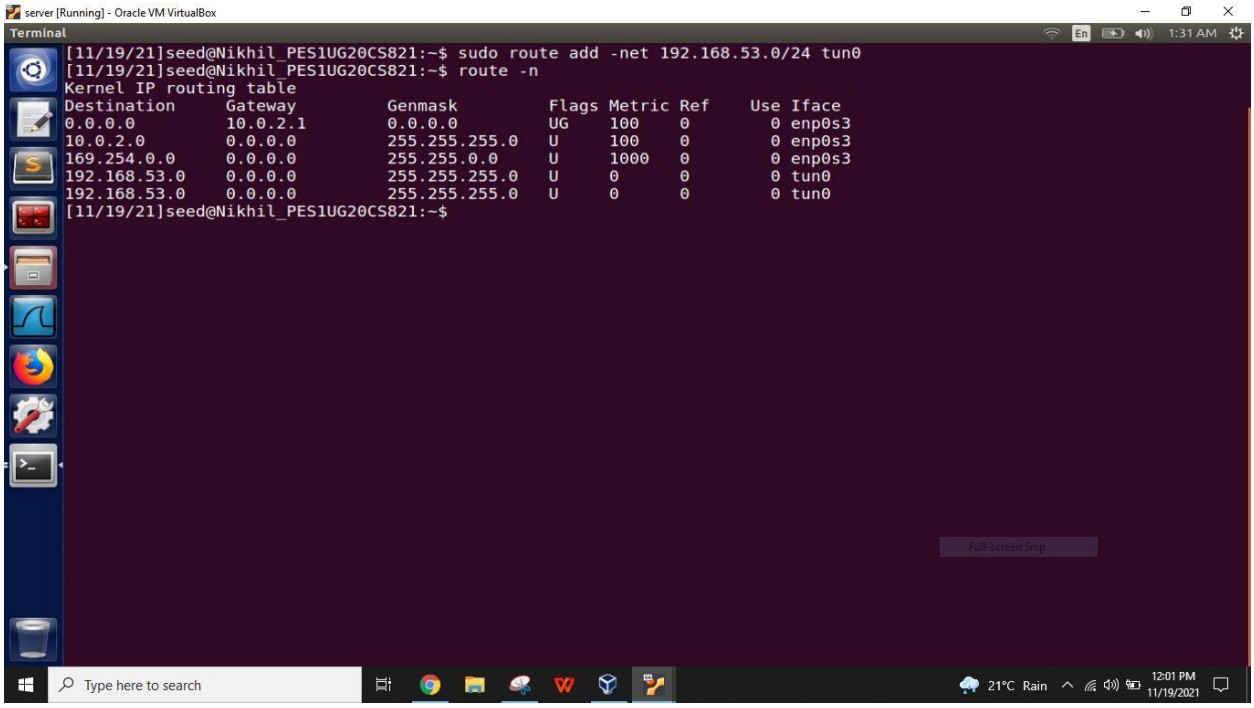


Step 3: Set up routing on Client and Server VMs

We add routing path to the client VM

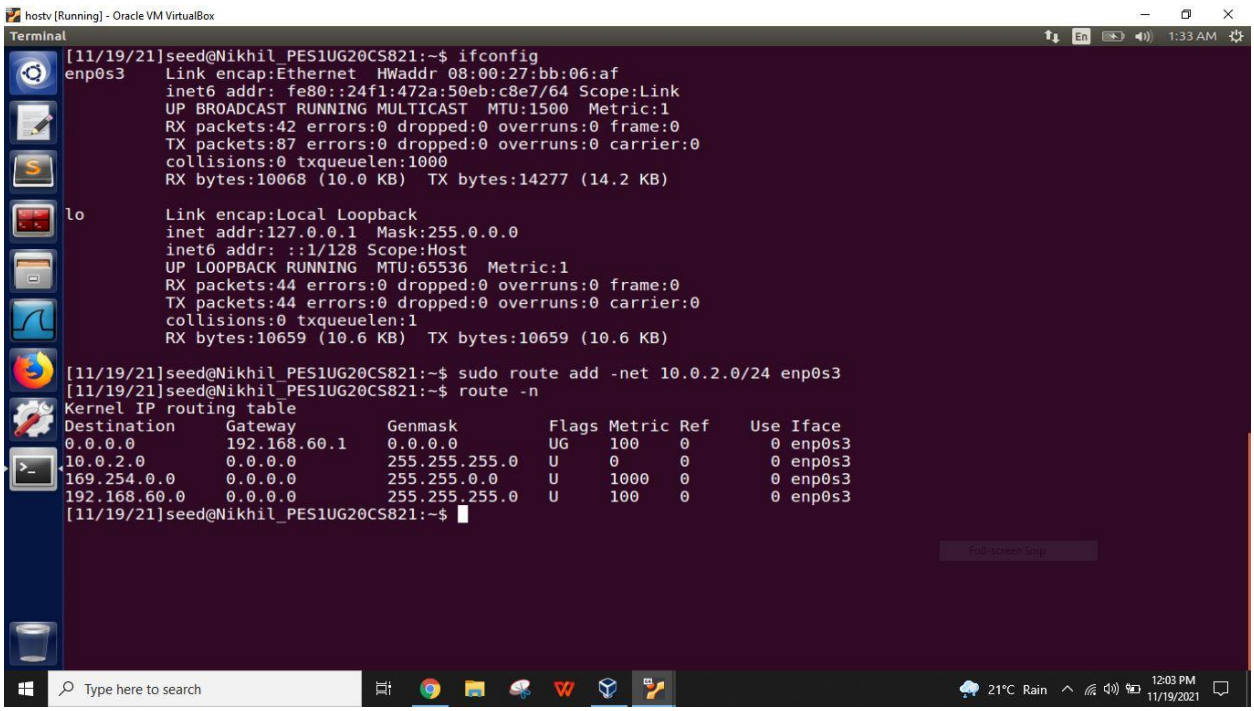


We also add routing path to the server VM



Step 4: Set up routing on HOST V

At last we add the routing path to the host v



Step 5: Test the VPN tunnel

After setting up the VPN tunnel we can see that the packets travel from client to server via host v which acts like the vpn