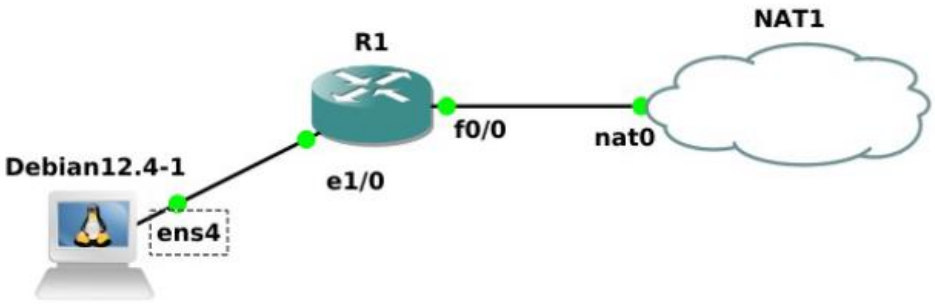
Task 4 - Basic Cisco Router Configuration

In this task, we will implement basic configuration for accessing CISCO router.

Implement the following topology using c7200 router and a debian terminal.



Configuration R1

Open the R1 terminal and follow the steps below to configure it.

Change the hostname of the Router to the number your registry number. (those who modify the SI, should set the modified AM. The correction script will calculates itself, from the IP to be set below)	enable config t hostname 1074545 exit wri
Configure access via console with the following settings and passwd the number your registry number. (those who modify the SI, should set the modified SI) History size. Number of commands the router's local buffer can show. Login: triggers the passwd request the time of login (without the command, passwd is stored but not activated). See below for the difference between login and login local. logging synchronous: prints "synchronously" the output messages (e.g. from command execution) on the screen.	enable config t line console 0 password 1074545 history size 15 login logging synchronous exit exit wri
Configure telnet access with the the following settings with passwd number your registry number. (those who modify the AM, should set	enable config t line vty 0 15 password 1074545

the modified SI) VTY: Virtual TYpe or Virtual Terminal (usually telnet and ssh) Login local: authentication is done with credentials created by adding new user (see next command). Alternatively with local no username will be requested.	history size 15 login local logging synchronous exit exit wri
Adding a user (without adding a user, by telneting username is requested, which we don't have yet added yet). Add a user with username/passwd registry number and privilege = 10 (those who modify the AM, should set the modified SI)	enable conf t username 1074545 privilege 10 password 1074545 exit wr
Enter passwd to allow the user to enter the router in config mode	enable config t enable secret cisco exit wr
Enable dhcp-client on the interface FastEthernet 0/0	<commands from the previous task>
Assign IP address to interface e1/0 according to your registry number πx 1074545 -> 107.45.45.1/24 (modify the SI as in the previous task)	<commands from the previous task>
Implement DHCP server on interface e1/0	enable config t interface Ethernet 1/0 ip dhcp pool DHCPpool network 107.45.45.1 255.255.255.0 dns-server 8.8.8.8 default-router 107.45.45.1 service dhcp exit wr
Implement NAT on interface e1/0. Commands are given.	configure t interface FastEthernet 0/0 ip nat outside exit exit wr enable configure terminal interface Ethernet 1/0 ip nat inside ip nat inside source list 1 interface

	FastEthernet 0/0 overload access-list 1 permit 107.45.45.1 0.255.255.255 exit wr

Questions:

Open the debian terminal and:

1. Run ip a and point to the IP assigned to it.

2. Run ping 8.8.8.8 and show the results.

3. Run sudo traceroute -n 8.8.8.8 and show the results.

◦ (the traceroute command requires elevated administrator (sudo) permissions and in the case of

vmware NAT filters UDP packets, use the ICMP protocol: sudo

traceroute -n -I 8.8.8.8).

4. Telnet to R1 and confirm your passwords (you must first

update and install telnet and gcc as in the previous tasks).

◦ Run telnet <IP address of R1 e.g. 107.45.45.1> and confirm that you are connecting with

username/passwd your registry number.