Name: Kaustav Ghosh

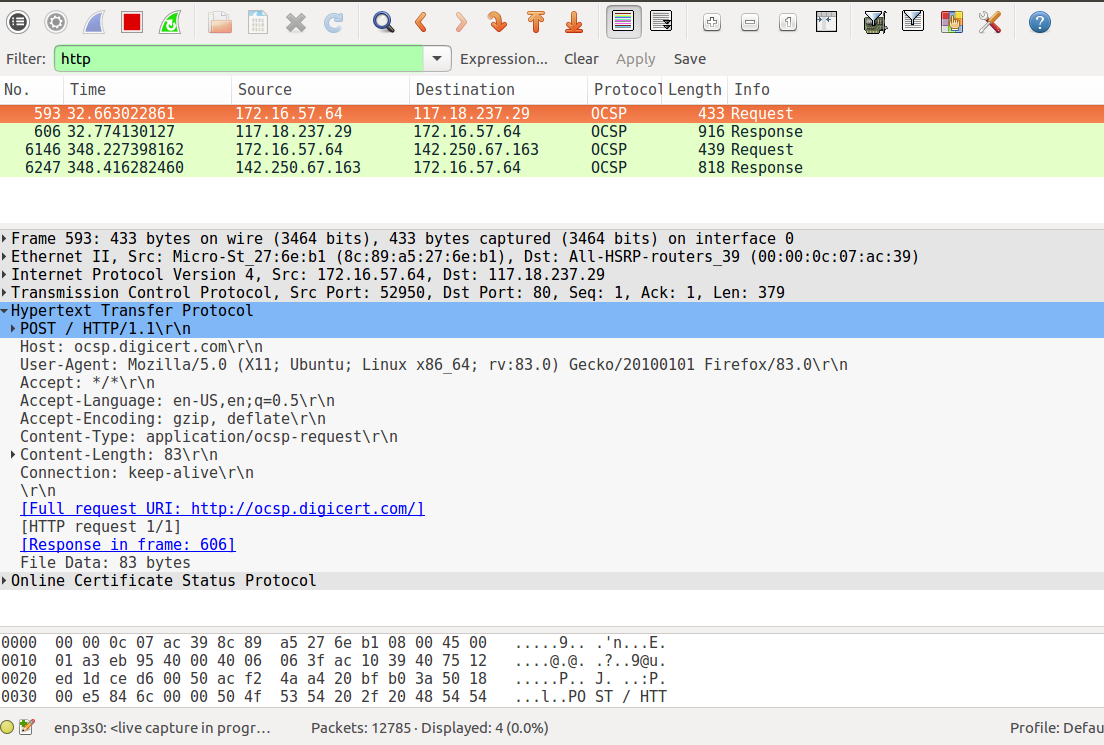
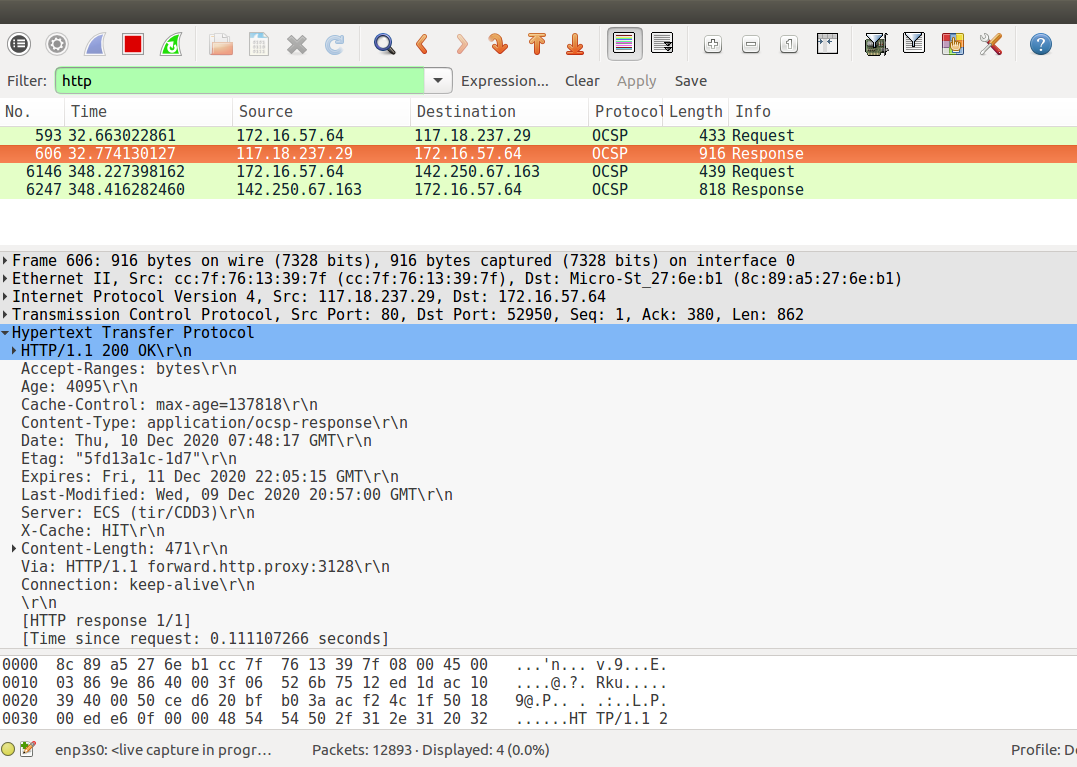
Reg no: 180905188

Section: CSE – C

Roll no 29

Q3.1

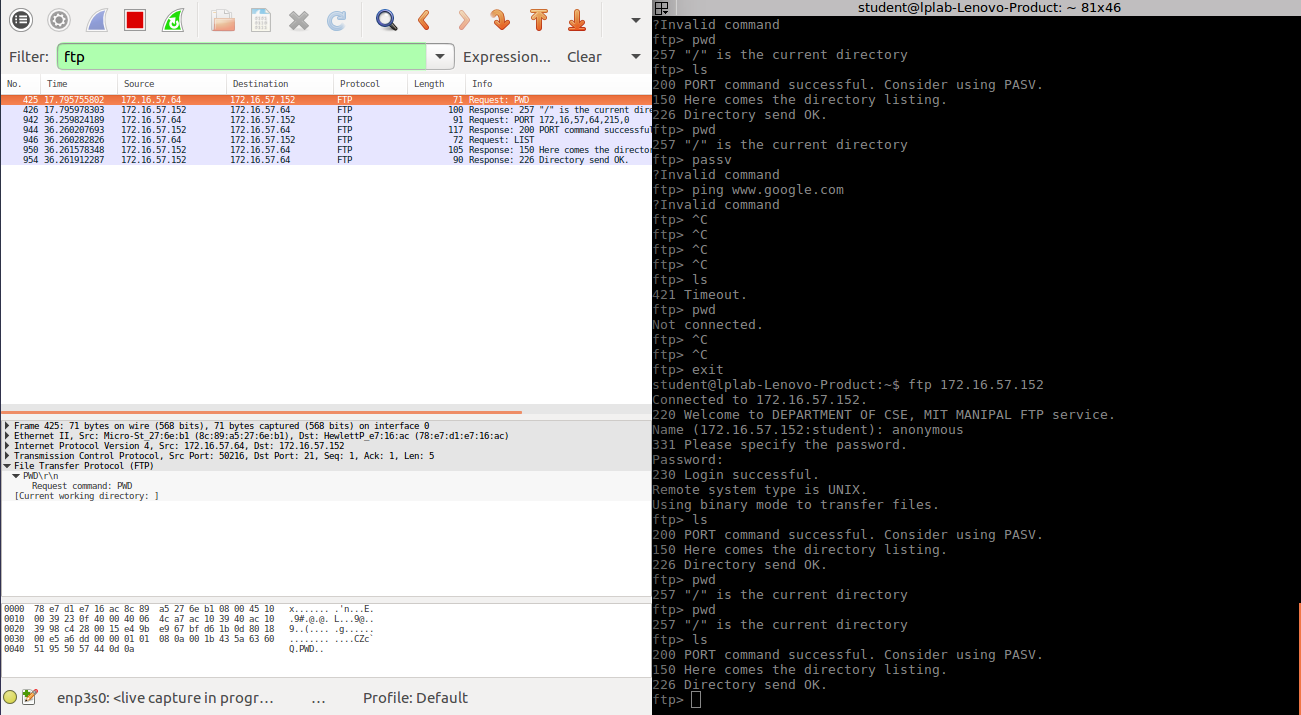
Request

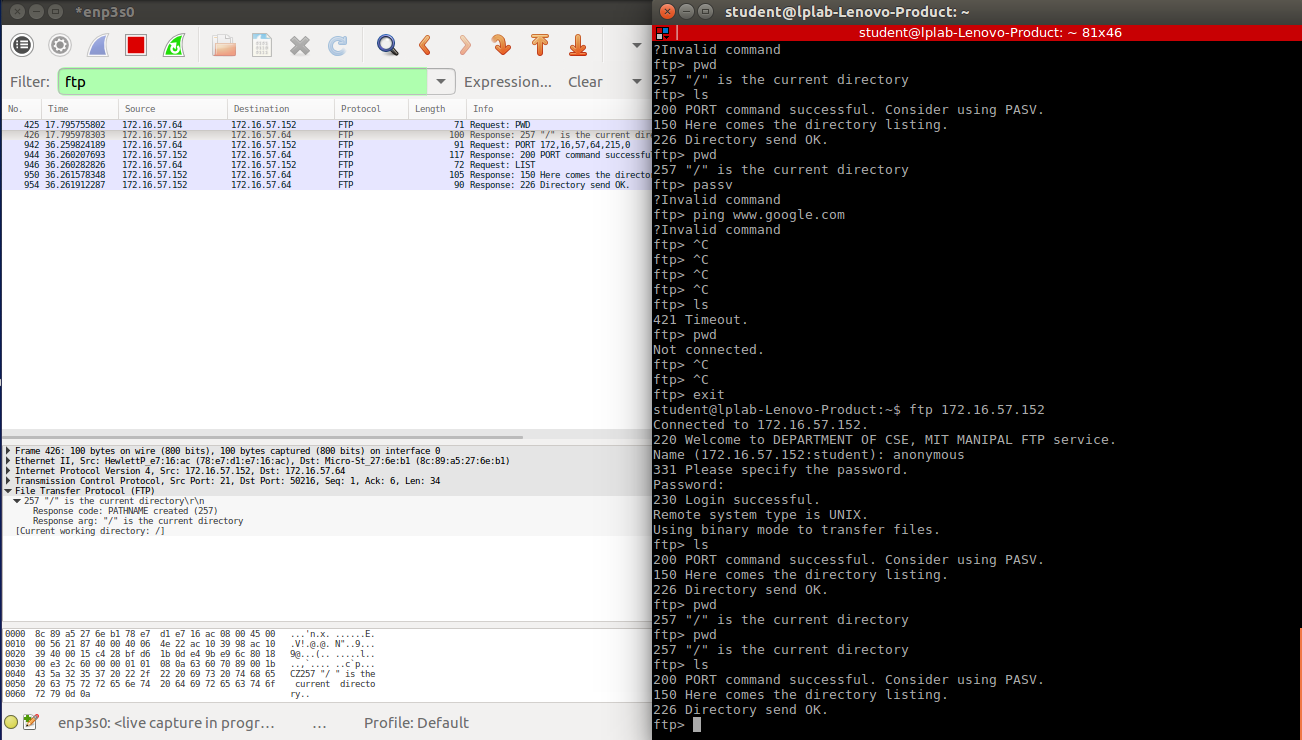


Response

Q3.2

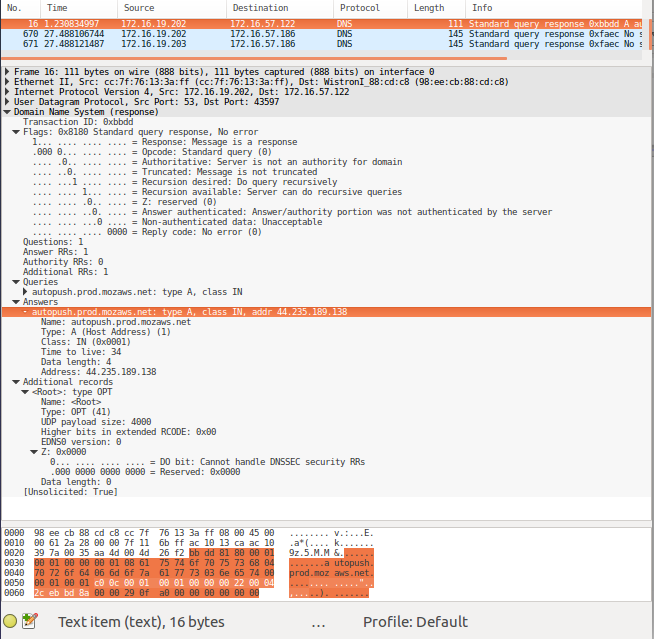
request



 Response

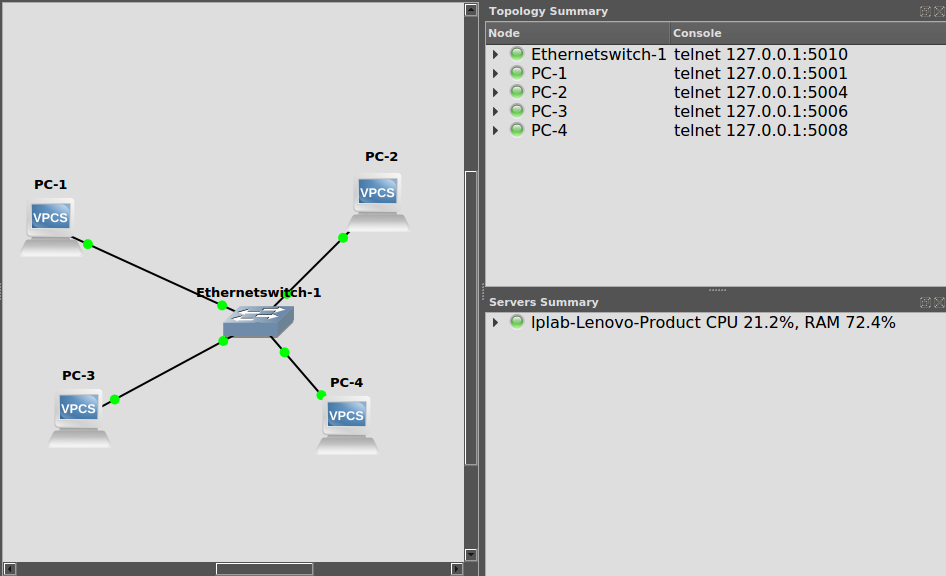
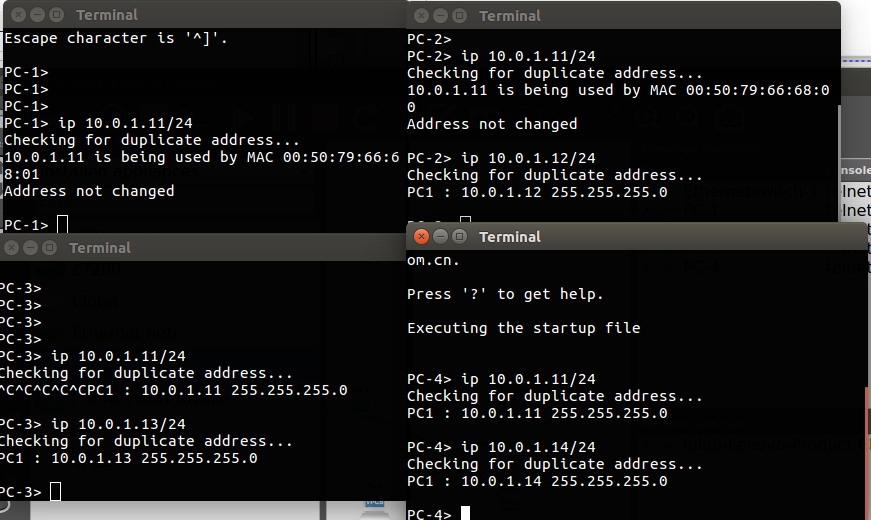
Q 3.7

DNS

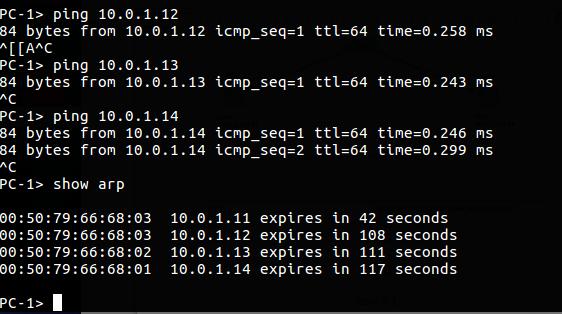


Q 4.1

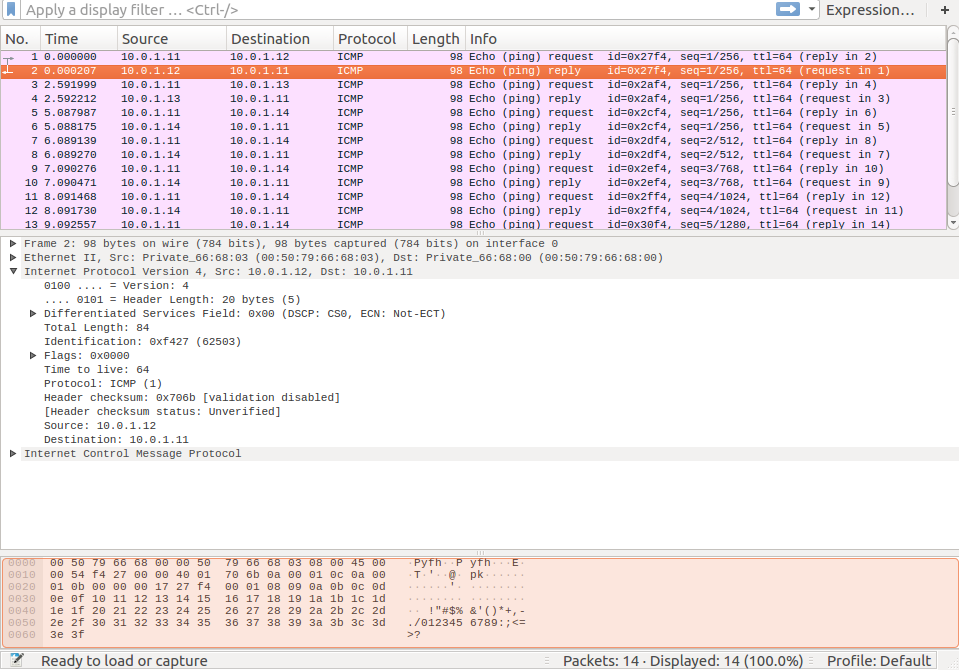
4.1a

network01\_gns3\_simulation

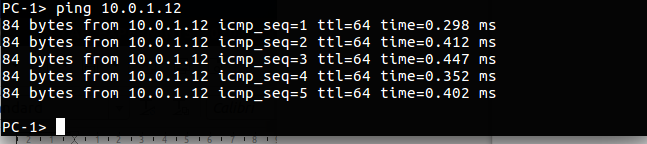
4.1 a



4.1b

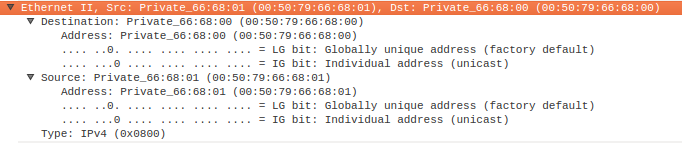


4.1 c

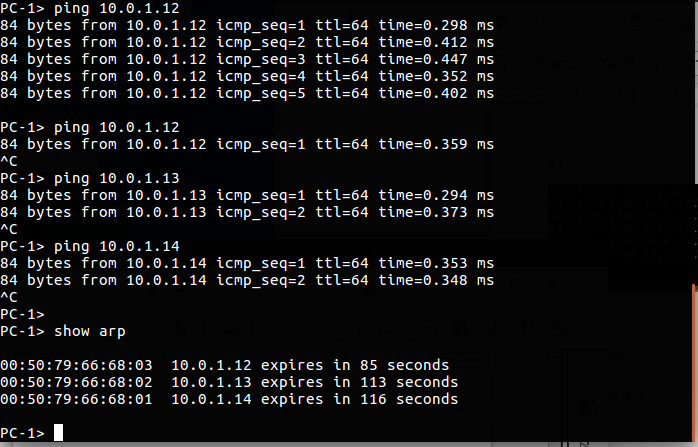


4.1d

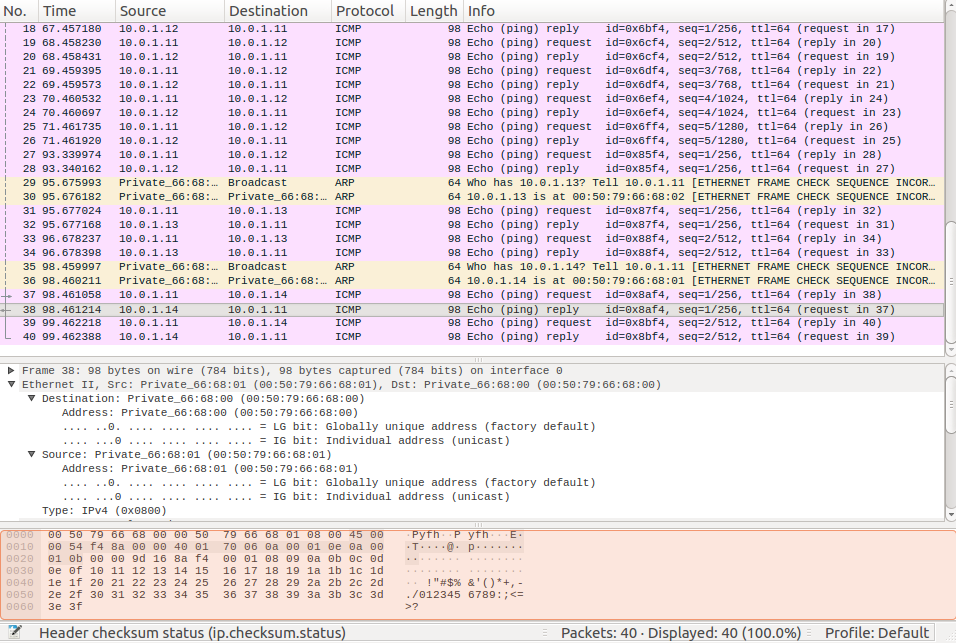
MAC Addresses



Showing ARP Table



4.1e



Exercises

1. What is the destination MAC address of an ARP Request packet?

Ans: It is the MAC address of the device to which the ARP Request packet is being sent

For example: Destination: Private\_66:68:01 (00:50:79:66:68:01) for 10.0.0.4

2. What are the different Type Field values in the Ethernet headers that you observed?

Ans:

Ethernet II, Src: Private\_66:68:02 (00:50:79:66:68:02), Dst: Private\_66:68:00 (00:50:79:66:68:00)

Destination: Private\_66:68:00 (00:50:79:66:68:00)

Address: Private\_66:68:00 (00:50:79:66:68:00)

.... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)

.... ...0 .... .... .... .... = IG bit: Individual address (unicast)

Source: Private\_66:68:02 (00:50:79:66:68:02)

Address: Private\_66:68:02 (00:50:79:66:68:02)

.... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)

.... ...0 .... .... .... .... = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

3. Use the captured data to analyse the process in which ARP acquires the MAC

address for IP address10.0.1.12.

Ans: MAC Address: Private\_66:68:03 (00:50:79:66:68:03)

4. Use your output data and ping results to explain what happened in each of the ping

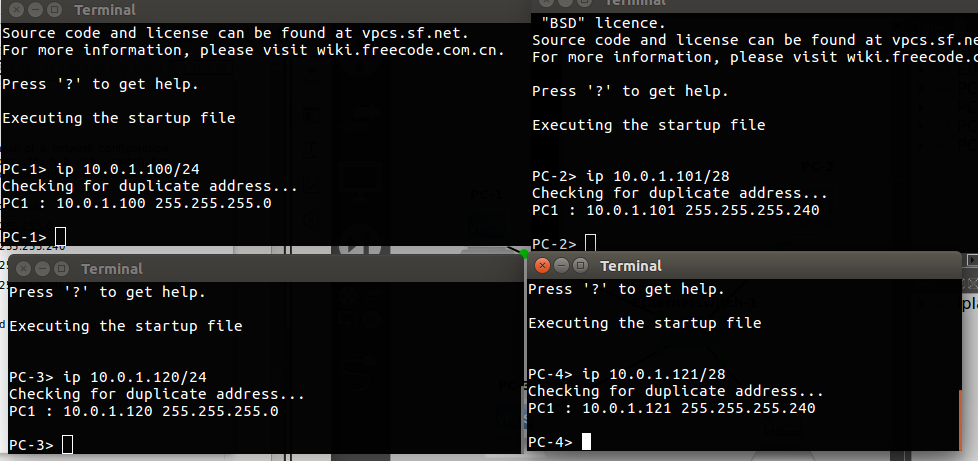
commands.

Ans: When the pings were made to other devices , those devices showed up in the ARP table of the source computer

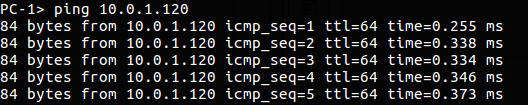
5. Which ping operations were successful, and which were unsuccessful? Why?

Ans: All pings wer successful.

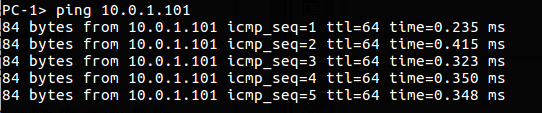
Q 4.2



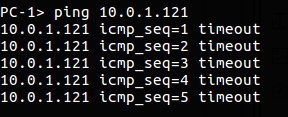
4.2a



4.2b



4.2 c



4.2d

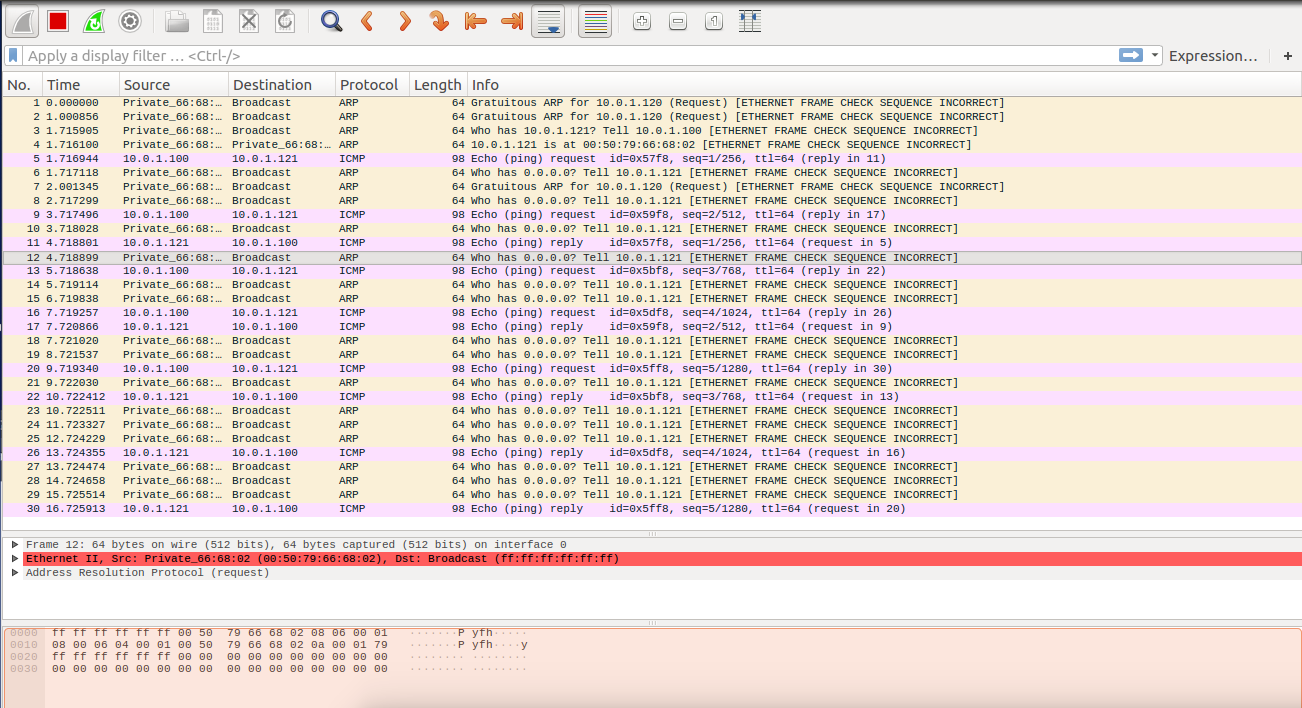


4.2e

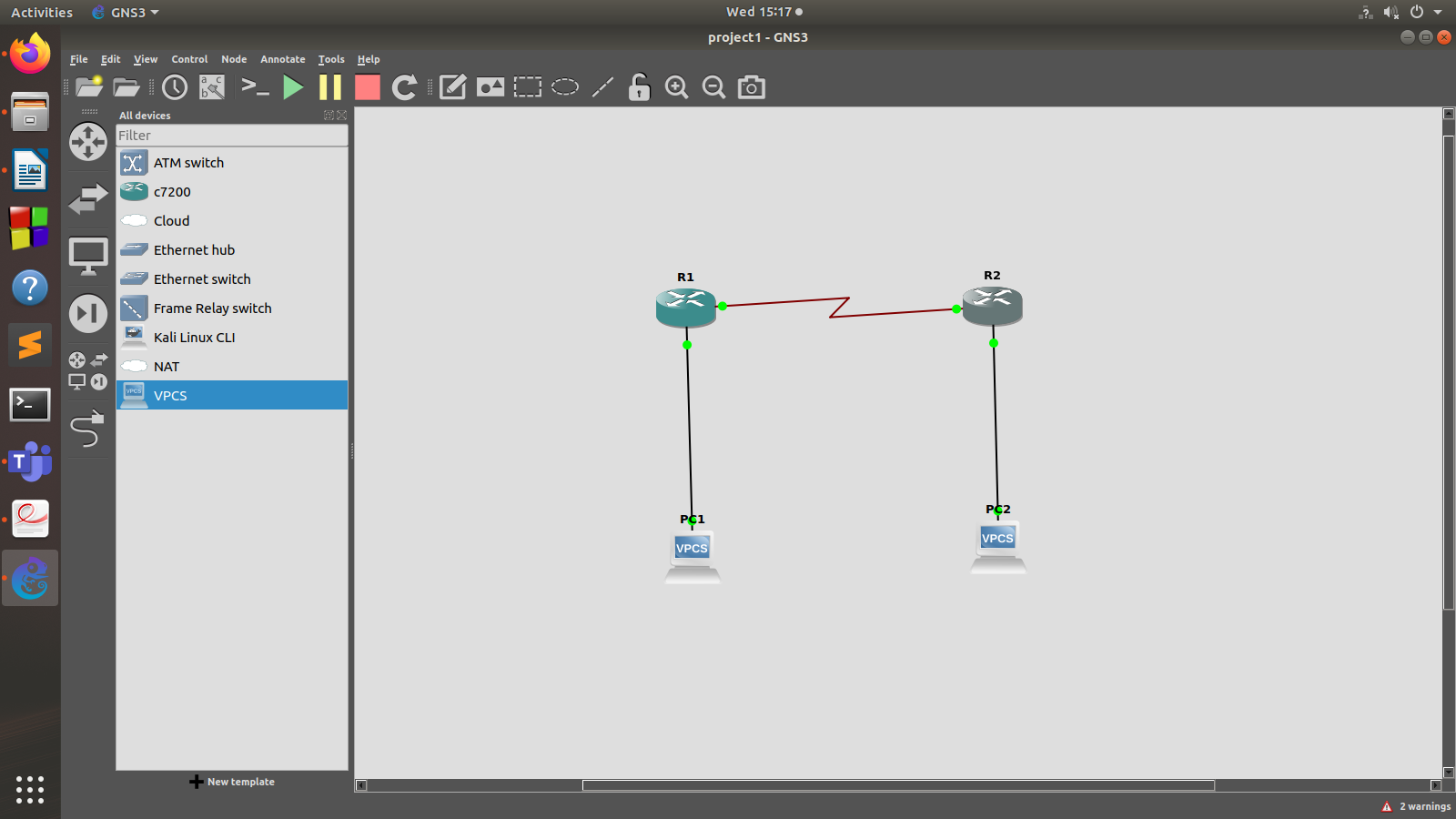


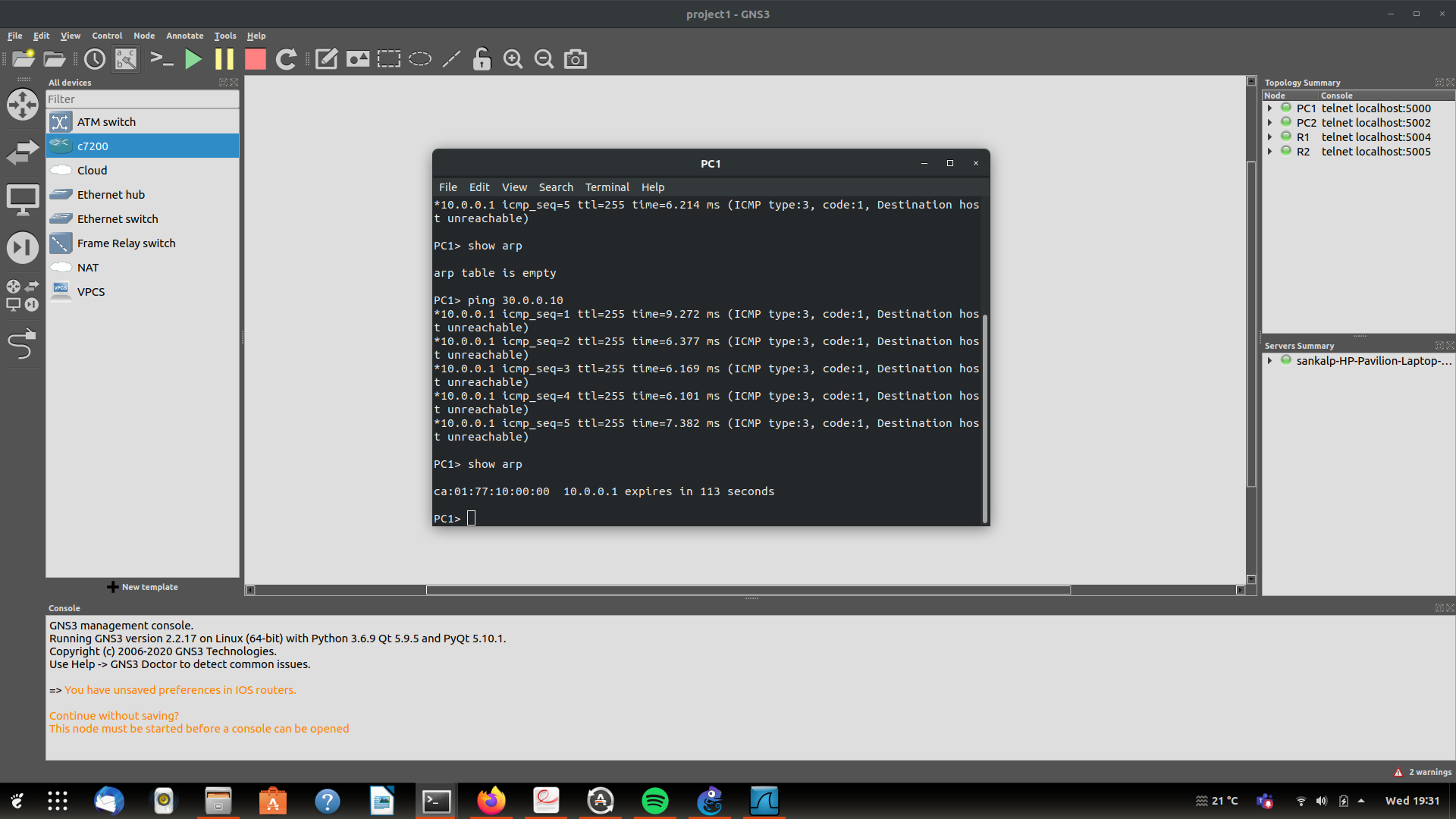
4.2f

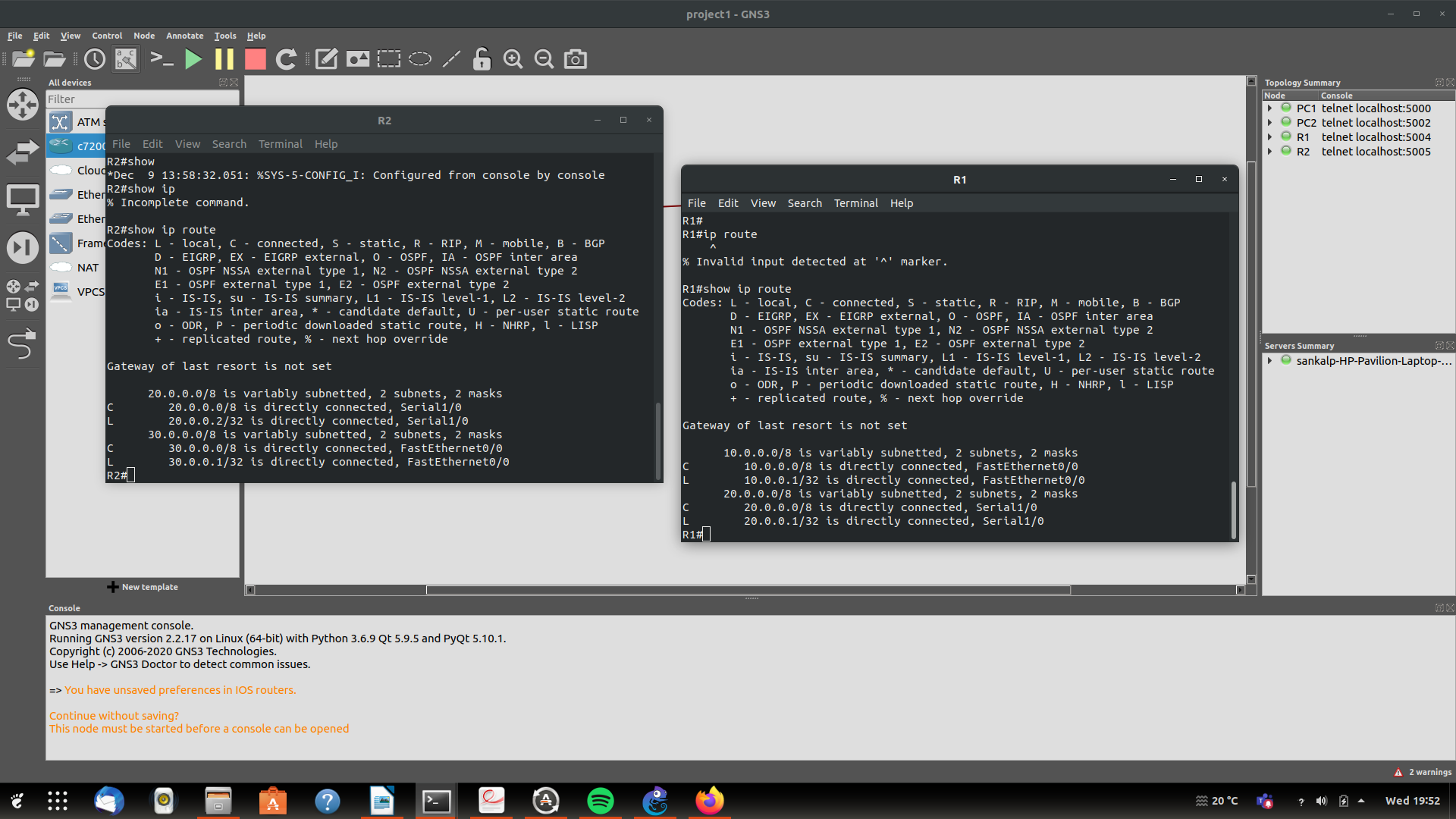




4.6) a)







b)

