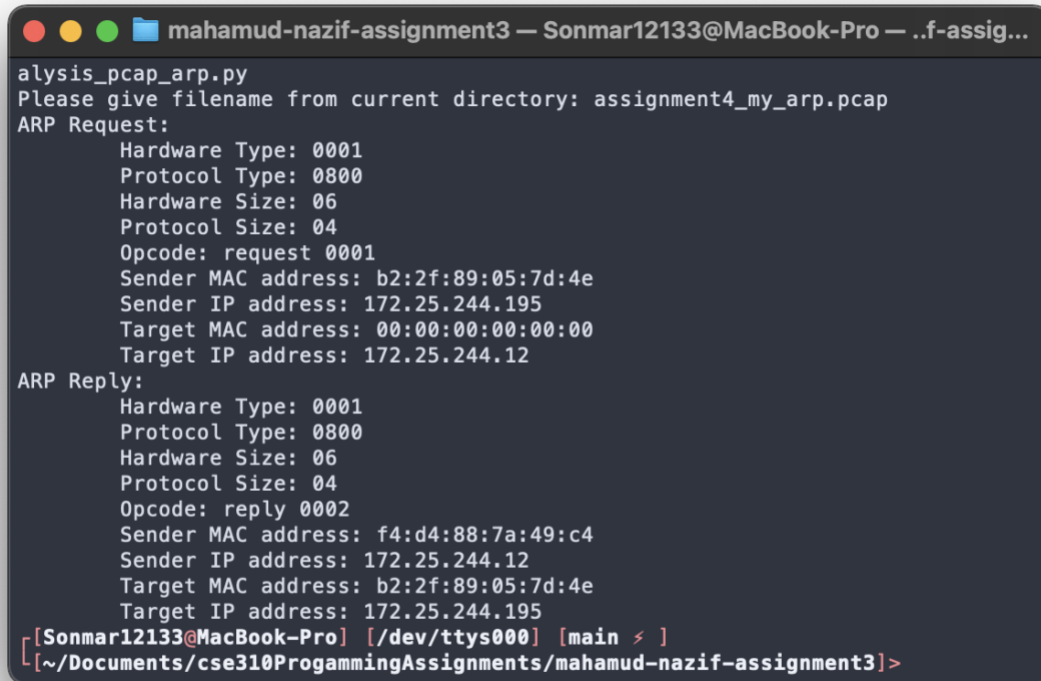


```
48... 43.5741... b2:2f:89:05:7d:4e Apple_7a:49:c4 ARP 56 Who has 172.25.244.12? Tell 172.25.244.195
48... 43.5743... Apple_7a:49:c4 b2:2f:89:05:7... ARP 42 172.25.244.12 is at f4:d4:88:7a:49:c4
```

This is a screenshot for the ARP Exchange that will be printed. This is the first one from the pcap file that I used but the program has been made to support other pcap files.



```
mahamud-nazif-assignment3 — Sonmar12133@MacBook-Pro — ..f-assig...
alYSIS_pcap_arp.py
Please give filename from current directory: assignment4_my_arp.pcap
ARP Request:
  Hardware Type: 0001
  Protocol Type: 0800
  Hardware Size: 06
  Protocol Size: 04
  Opcode: request 0001
  Sender MAC address: b2:2f:89:05:7d:4e
  Sender IP address: 172.25.244.195
  Target MAC address: 00:00:00:00:00:00
  Target IP address: 172.25.244.12
ARP Reply:
  Hardware Type: 0001
  Protocol Type: 0800
  Hardware Size: 06
  Protocol Size: 04
  Opcode: reply 0002
  Sender MAC address: f4:d4:88:7a:49:c4
  Sender IP address: 172.25.244.12
  Target MAC address: b2:2f:89:05:7d:4e
  Target IP address: 172.25.244.195
[ Sonmar12133@MacBook-Pro ] [ /dev/ttys000 ] [ main < ]
[ ~/Documents/cse310ProgammigAssignments/mahamud-nazif-assignment3 ]>
```

This is a screenshot of the output of my python program.

Expanding the request and replying using Wireshark and my python program's output, the IP of my router is 171.25.244.195 and the MAC Address is b2:2f:89:05:7d:4e. This is since the ARP requests are composed using the IP of the router to find another device using the same router. Same thing for the MAC address. Looking at the request, we can see the sender IP and MAC Address. This would be the router.