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CSE 310

Programming Assignment #3

<p align="center">Part B</p>

Captured ARP Exchange from Wireshark

```
13231 76.751892    Chongqin_94:50:27    IntelCor_54:89:b3    ARP    56 Who has 172.24.85.169? Tell 172.24.85.156
13232 76.751909    IntelCor_54:89:b3    Chongqin_94:50:27    ARP    42 172.24.85.169 is at d4:d2:52:54:89:b3
```

∨ Address Resolution Protocol (request)
    Hardware type: Ethernet (1)
    Protocol type: IPv4 (0x0800)
    Hardware size: 6
    Protocol size: 4
    Opcode: request (1)
    Sender MAC address: Chongqin_94:50:27 (8c:c8:4b:94:50:27)
    Sender IP address: 172.24.85.156
    Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)
    Target IP address: 172.24.85.169

∨ Address Resolution Protocol (reply)
    Hardware type: Ethernet (1)
    Protocol type: IPv4 (0x0800)
    Hardware size: 6
    Protocol size: 4
    Opcode: reply (2)
    Sender MAC address: IntelCor_54:89:b3 (d4:d2:52:54:89:b3)
    Sender IP address: 172.24.85.169
    Target MAC address: Chongqin_94:50:27 (8c:c8:4b:94:50:27)
    Target IP address: 172.24.85.156

(i)

ARP Exchange from program, same as above

```
ARP Exchange:

    ARP Request:
        Hardware Type: 0001
        Protocol Type: 0800
        Hardware Size: 6
        Protocol Size: 4
        Opcode: 0001
        Sender MAC address: 8c:c8:4b:94:50:27
        Sender IP address: 172.24.85.156
        Target MAC address: 00:00:00:00:00:00
        Target IP address: 172.24.85.169

    ARP Reply:
        Hardware Type: 0001
        Protocol Type: 0800
        Hardware Size: 6
        Protocol Size: 4
        Opcode: 0002
        Sender MAC address: d4:d2:52:54:89:b3
        Sender IP address: 172.24.85.169
        Target MAC address: 8c:c8:4b:94:50:27
        Target IP address: 172.24.85.156
```

(ii)

The sender MAC/IP addresses from the ARP reply are the same as the respective addresses from my router, as my router is the machine that sent the ARP request. So, my MAC address is d4:d2:52:54:89:b3 and my IP address is 172.24.85.169.