WIRESHARK

Computer Networks Lab Assignment

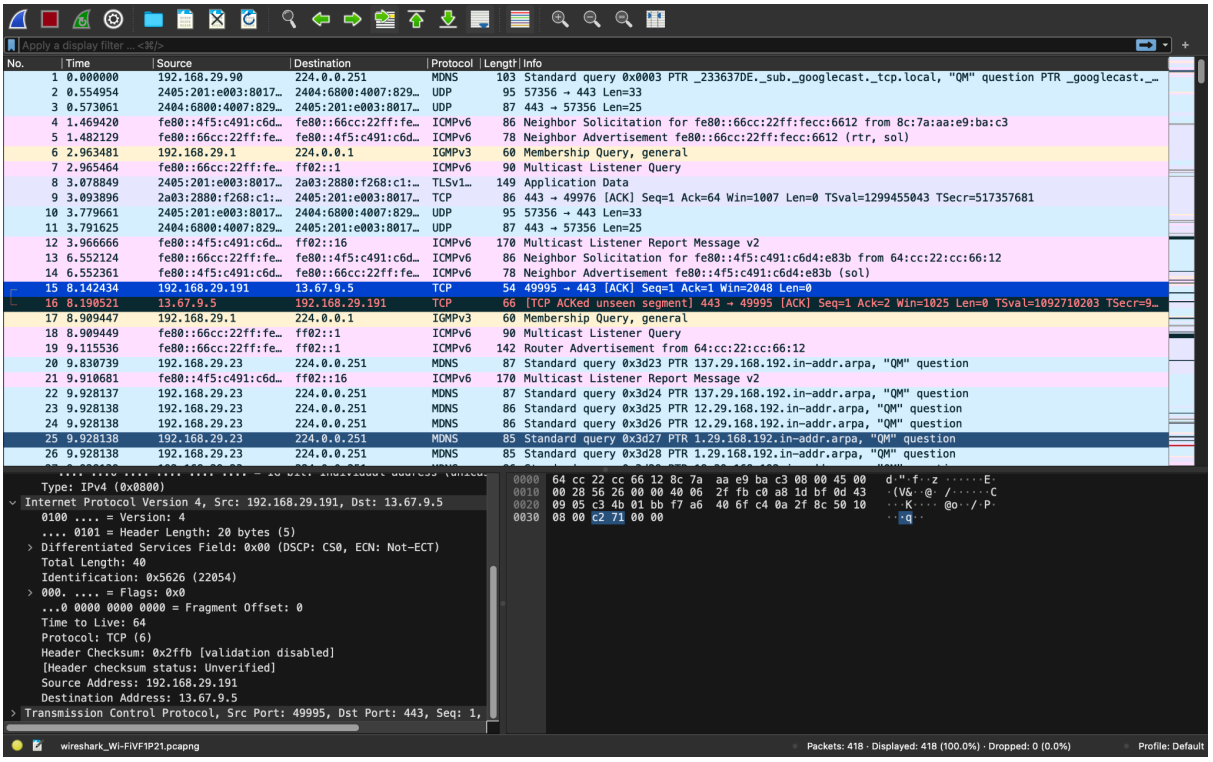
21BCE1796 - B SHAKTHI

Step 1:

Open Wireshark and select the interface

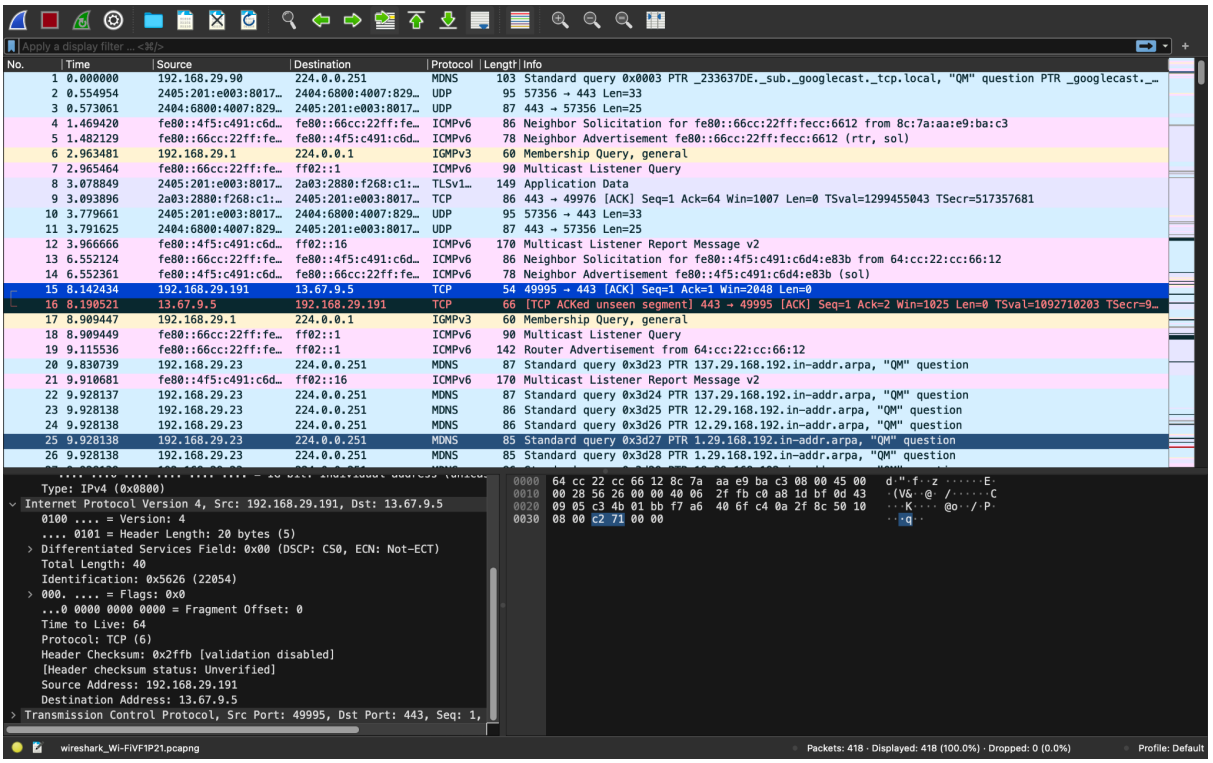
Step 2:

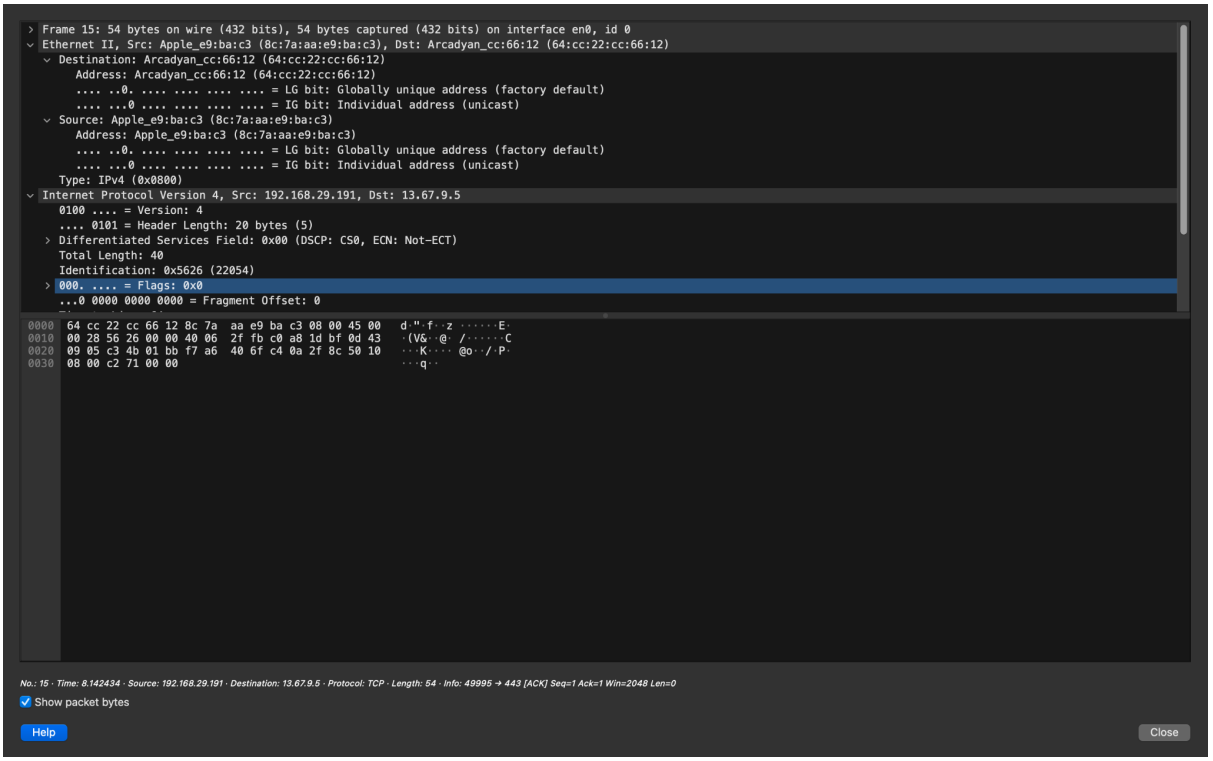
Start capturing by clicking the start in Wireshark



Step 3:

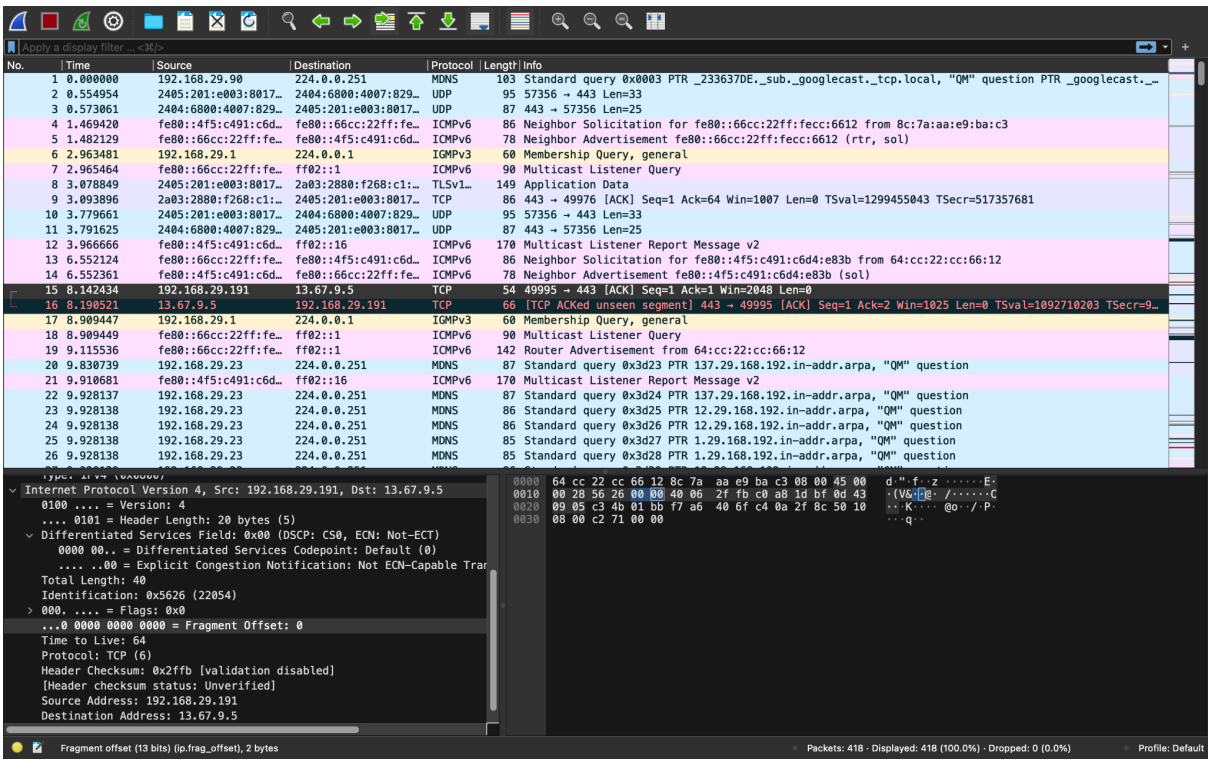
Exploring the IP Protocol in a UDP or TCP Packet





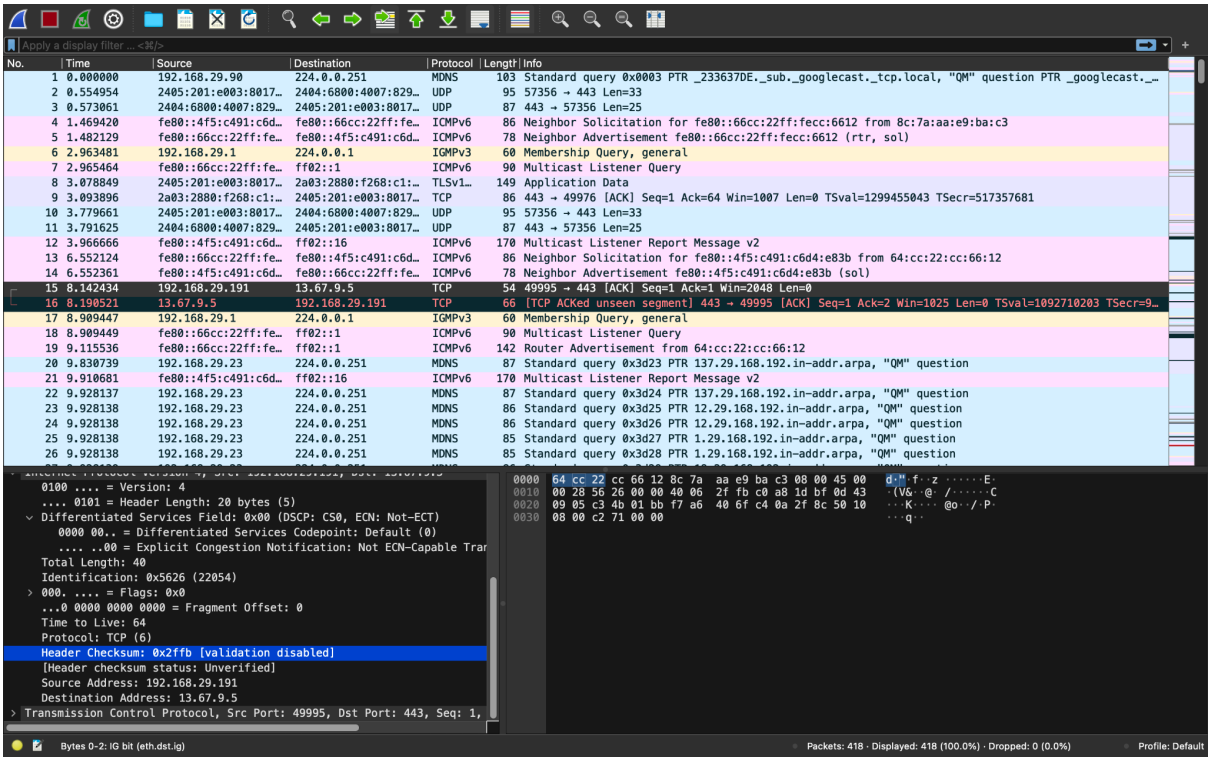
STEP 4:

Exploring the binary bytes of IP Header



Step 5:

Catching the header checksum from the binary byte



Step 6:

Then verify the checksum as follows

4500 0028 5626 0000 4006 **2ffb** c0a8 1dbf 0d43 0905

2ffb is the checksum

4500-> 0100010100000000

0028-> 0000000000101000

1st result ->0100010100101000

5626-> 101011000100110 (first result + next hex number)

2nd result->01001101101001110

0000-> 0000000000000000(second result + next hex number)

3rd result->01001101101001110

4006->0100000000000110(third + next hex)

4th result->01101101101010100

c0a8-> 1100000010101000(fourth + next hex)

5th result-> 0011010011101001 (1 carry)

So (0011010011101001+0000000000000001)

5th result->0011010011101010

1dbf->0001110110111111 (fifth + next hex)

6th result->0101001010101001

0d43->0000110101000011(sixth + next hex)

7th result->0000110101000100 (carry 1)

So 7th result->0000110101000100

0905->0000100100000101

Final result->01011001001001

1's complement of final result:

1110100110110110->2ffb (checksum)

Therefore,

the packet is verified.