UDP Sockets

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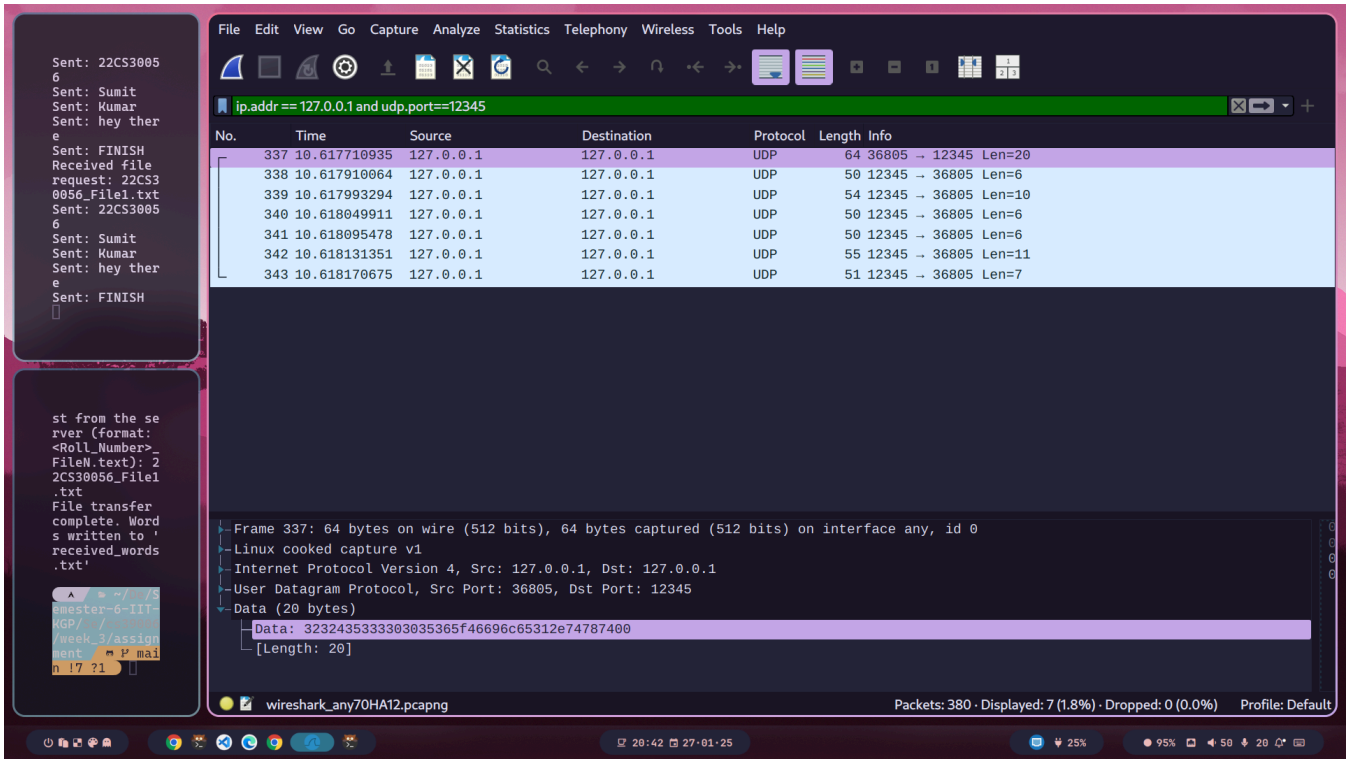
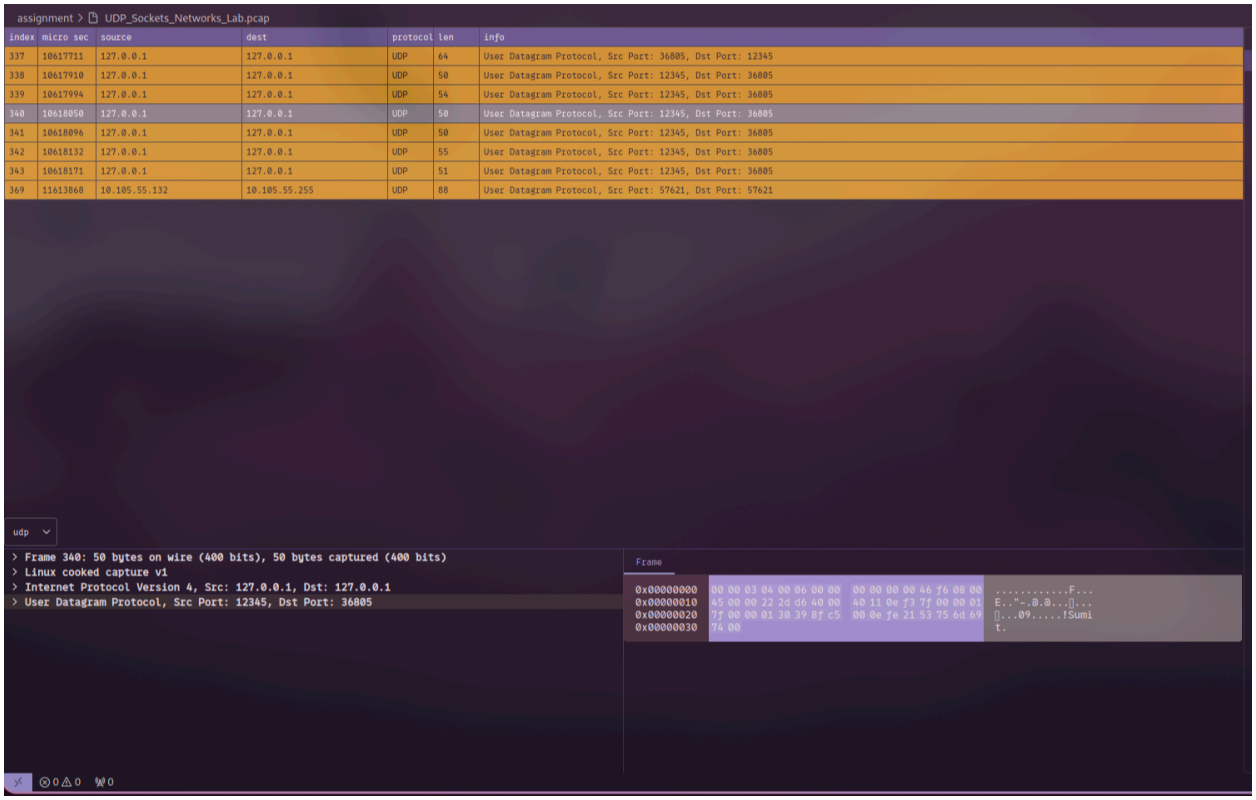
CS39006 Networks Laboratory
Assignment 2

Part-2: Wireshark Analysis

1. **Capture all packets exchanged between the client and server during execution. Show the screenshots**





The file transferred in this screenshot contains
HELLO
22CS30056
Sumit
Kumar
hey there
FINISH

The first packet is the file name which is received to the server.
After that all the packets contains the words of the files which are sent one by one.

2.What protocol is used for communication?

UDP(User Datagram Protocol) is being used for communication.

3.What are the source and destination IP addresses and ports?

For the first packet:

Source: 127.0.0.1:36805

Destination:127.0.0.1:12345

For the following packets:

Source: 127.0.0.1:12345

Destination: 127.0.0.1:36805

4. What is the size (in bytes) of the FILENAME request sent by the client?

The size of the FILENAME request sent by the client is of 64 bytes.

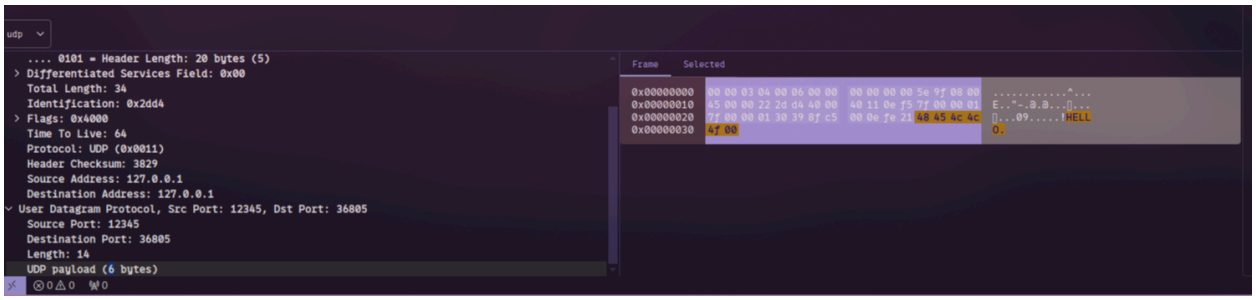
5.What is the size of the server's response for HELLO and the first word (*WORD*)?

For the HELLO word is 50 bytes of server's response.

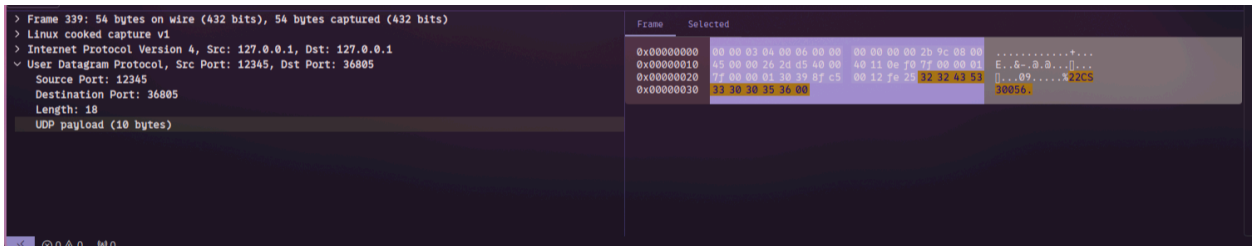
For the first word it is 54 bytes of server response.

6. Inspect the payload of packets where the words are transmitted. Show the UDP payloads of those packets.

We can see that the first word is HELLO in the truncated part.



We can check the truncated and highlighted part in the image.



7. Measure the total time taken for the file transfer from start to finish.

We note the times for the first packet sent.

First packet: t1=10617711 microsec

Last Packet: t2= 10618171 microsec

Hence the total time taken is 460microsec

8. What is the average size of each packet during the communication?

The average size is 53.4285 bytes.