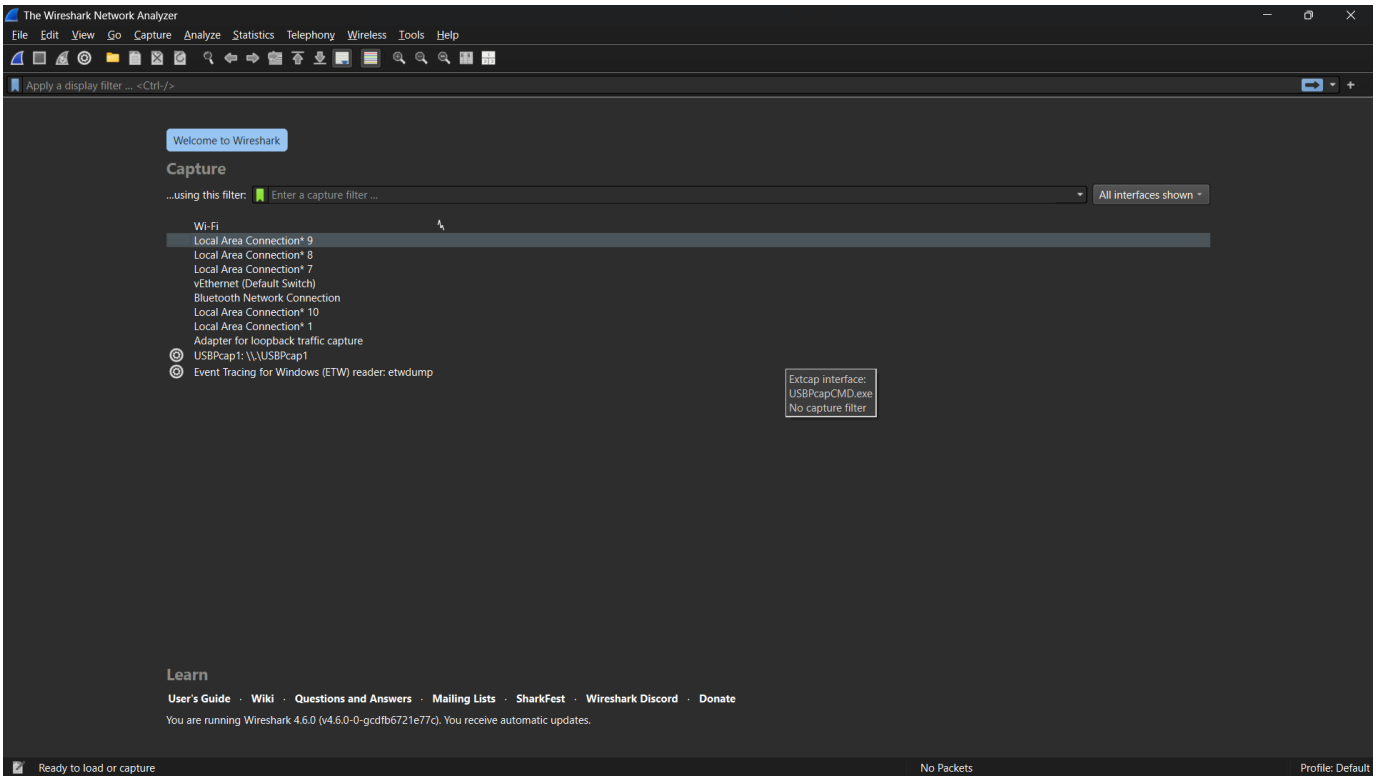
Marwadi University Marwadi Chandarana Group	**Marwadi University** **Faculty of Engineering and Technology** **Department of Information and Communication Technology**	
Subject: Computer Networks (01CT0503)	**Aim:** Monitor the live/real time network and analyze the concepts of various networking protocols like IP, TCP, UDP, etc.	
Experiment No: 11	**Date:**	**Enrolment No: 92301733041**

Aim: Monitor the live/real time network and analyze the concepts of various networking protocols like IP, TCP, UDP, etc.

Step 1: firstly connect to router/wifi and start wireshark



Step 2: Then there are many options , but beside that there is a graph , it shows that u are connected to that, In my case I have connected to wifi and graph is right side of WIFI.

Now double click on WIFI and there in few seconds lot many packets will be display.

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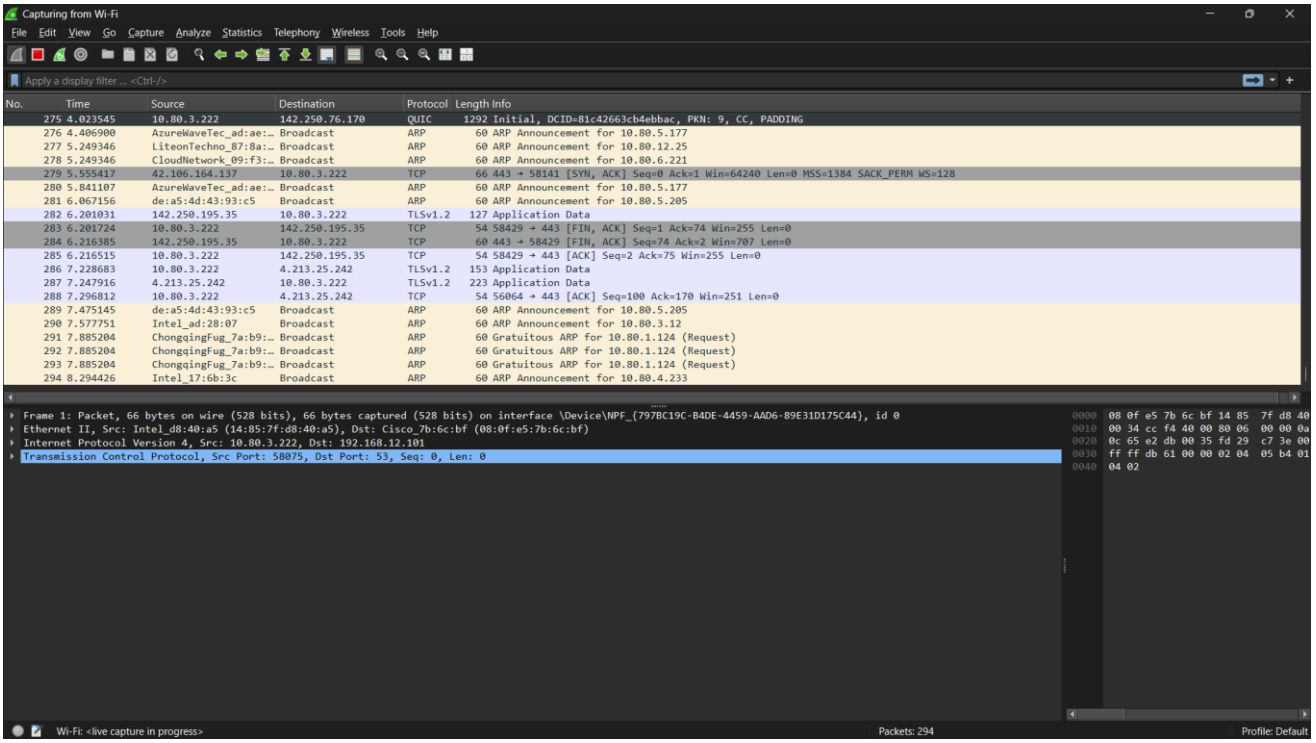

There are multiple panels, options available. Left side corner we have three options to start , end, restart the capture of packets.

In bottom panel mid side there is displaying the current package captured digits and it will keep increasing as u use the internet.

When u will click any packet it will show its information as we can see in above image.

Step 3: lets capture a site that I will open , lets I am opening youtube.com I my browser and look for it

As it is difficult to find for specific thing , so that's why there is a option of filter , there we can use defined command to make things easier for us

For our task I am using this command : tls.handshake.extensions_server_name contains "youtube"
This command will just display things regarding to YouTube only

And here are the result

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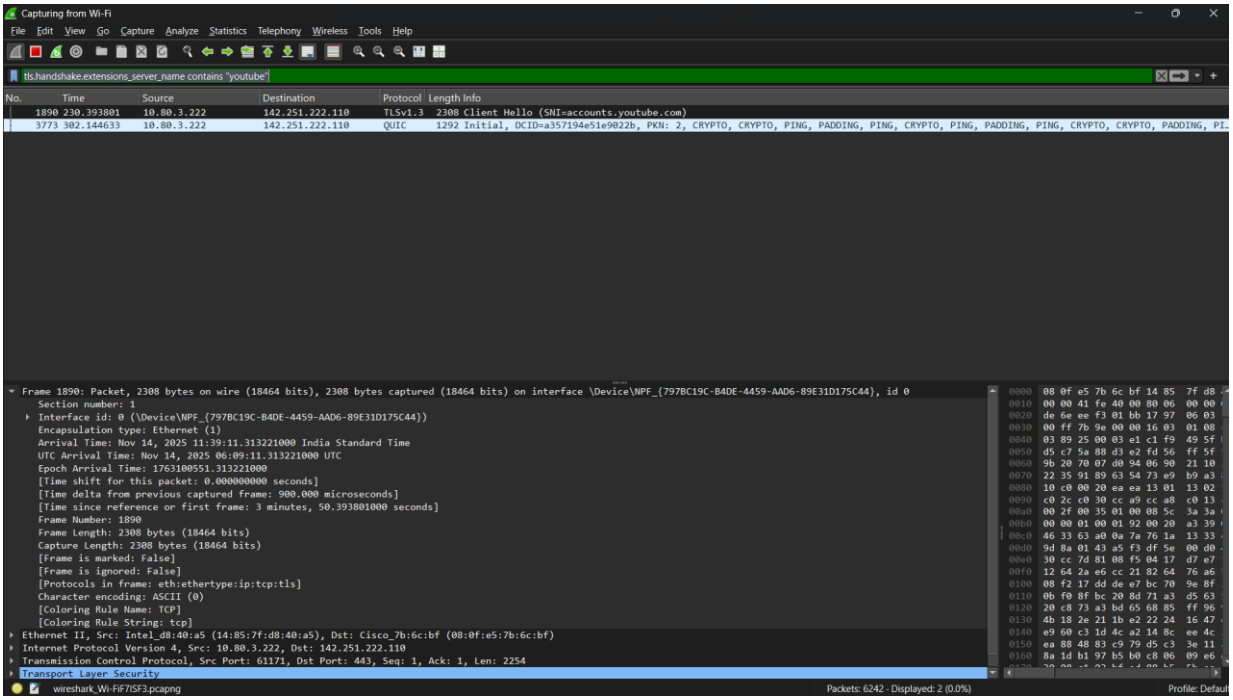
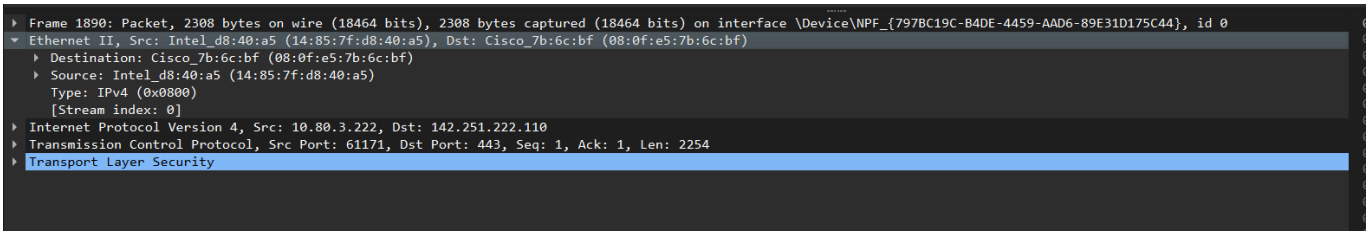
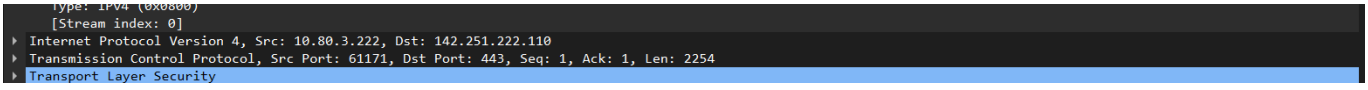


As we can see here I got the related packets for youtbube.com

In down side panel there are all details of it for example: In frame section there are the details of packet .



Here in Ethernet 2 section there is our(src) Ip add and Destination Ip add which is of youtube side.



In TCP panel it is showing the port add of source and destination.

Step 4: Verify for TCP protocol

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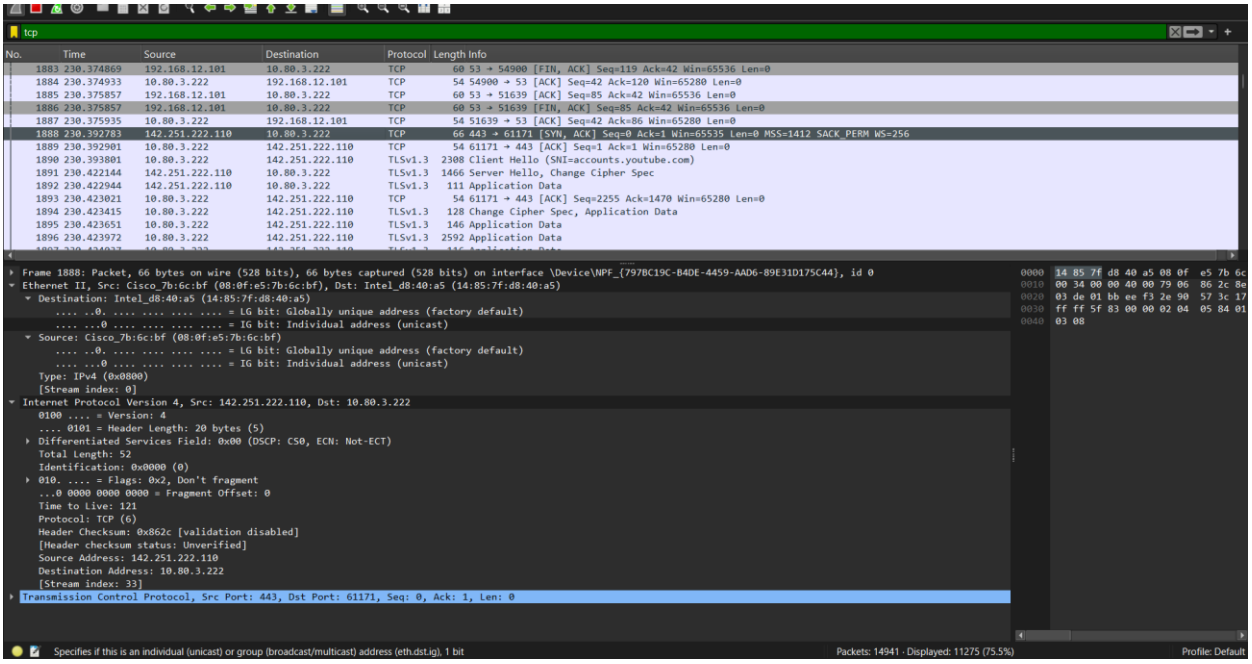

Here it is showing the TCP packets and here we can see the handshaking done by TCP.

Conclusion: Through this experiment, we successfully monitored real-time network traffic using Wireshark and analyzed key protocols such as IP, TCP, etc. The captured packets helped us understand how devices communicate, resolve domains, establish connections, and exchange data. Overall, Wireshark proved to be an effective tool for studying practical network behavior.