

# Mawlana Bhashani Science and Technology University



## Lab-Report

Report No: 04

Course code: ICT-4202

Course title: Wireless and Mobile Communication Lab

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## Experiment No: 04

### Experiment Name: Protocol Analysis with Wireshark

#### Objectives:

1. Live packet data capturing from a network interface.
2. Have to display packets with very detailed protocol information.
3. Filter packets on many criteria.
4. Search for packets on many criteria.
5. Colorize packet display based on filters.
6. Create various statistics.

If we click any menu option, then it will show the available interfaces list.

After clicking the menu, we need to start Capturing on interface that has IP address.

The packet capture will display the details of each packet as they were transmitted over the wireless LAN.

Capturing can be stopped by clicking on Stop the running capture button on the main toolbar.

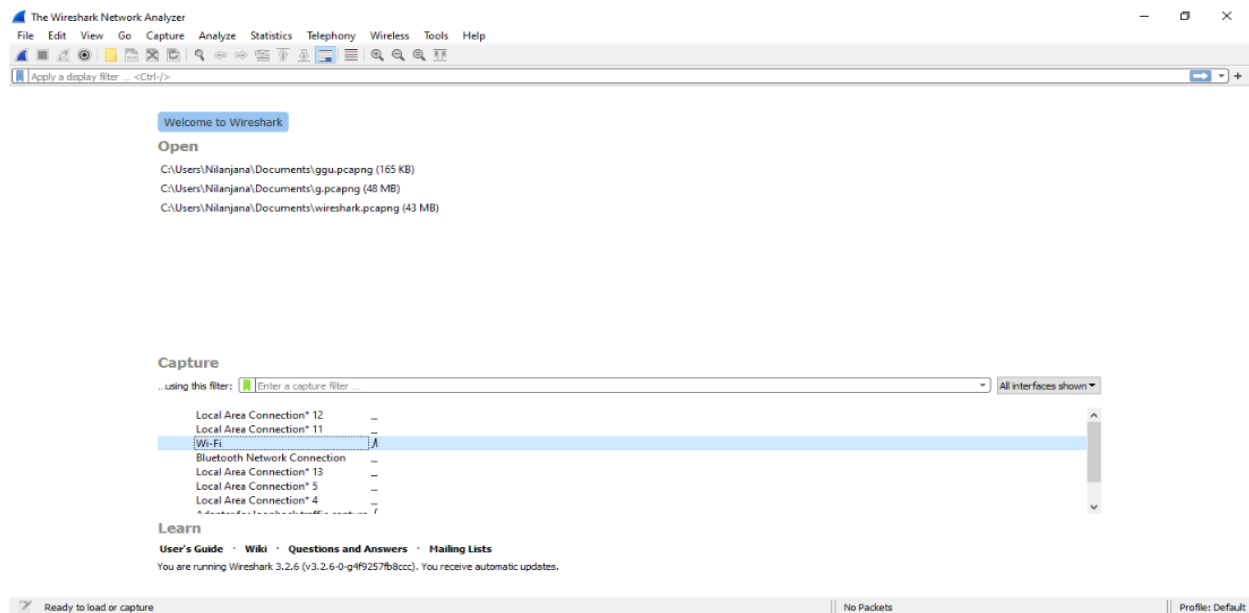
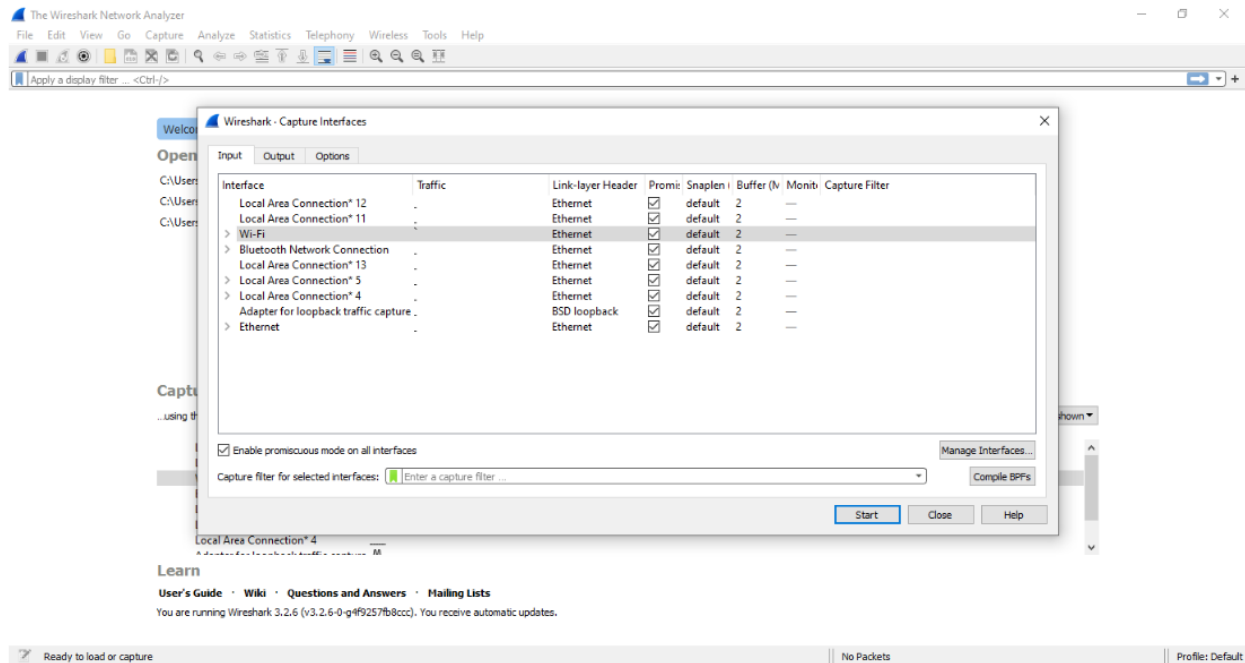
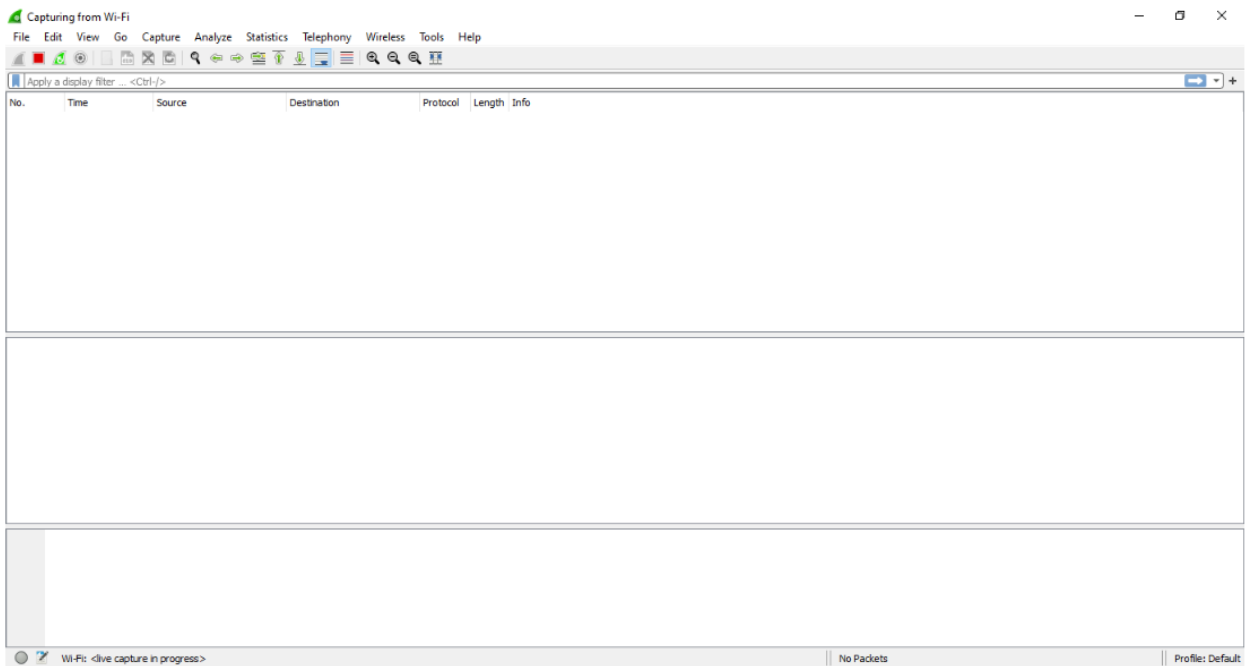


Figure a: Wireshark Interface List



**Figure b: Start Capturing Interface that has IP address**



**Figure c: Start Capturing**

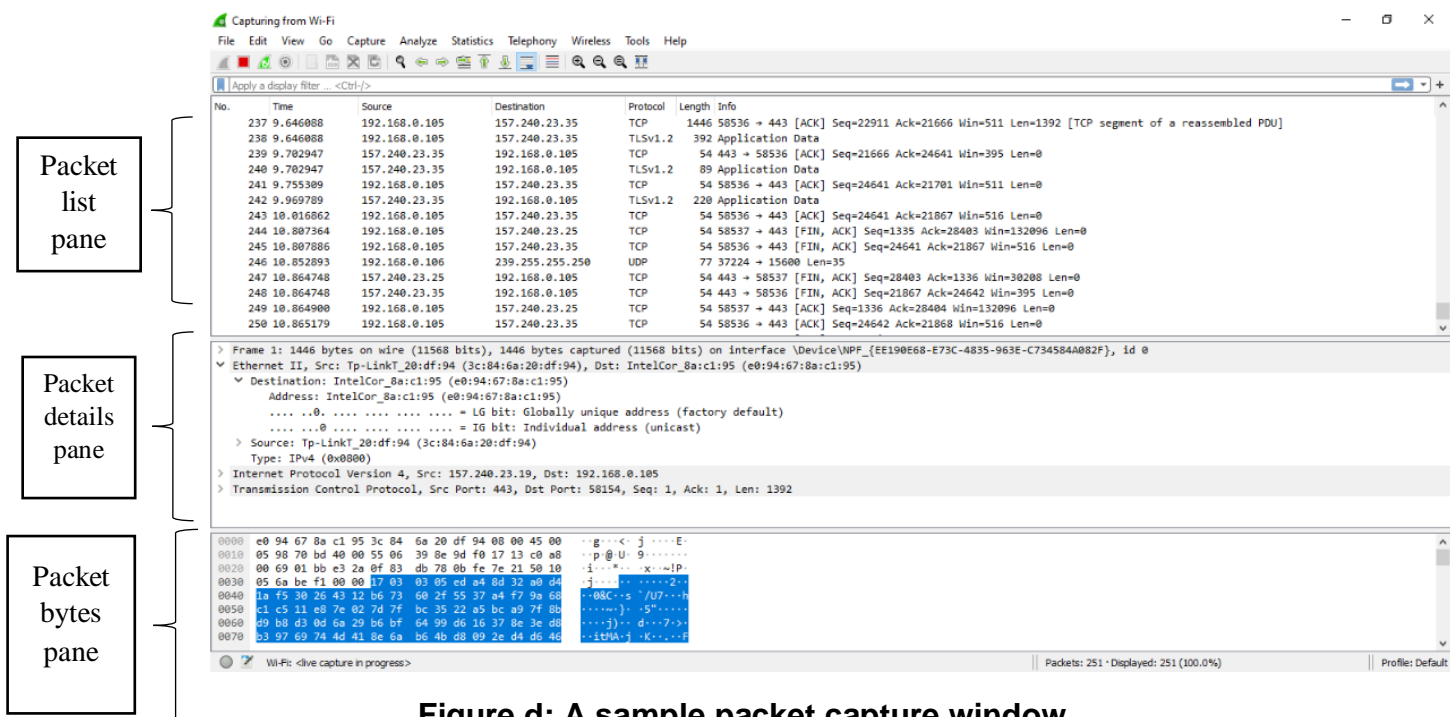


Figure d: A sample packet capture window

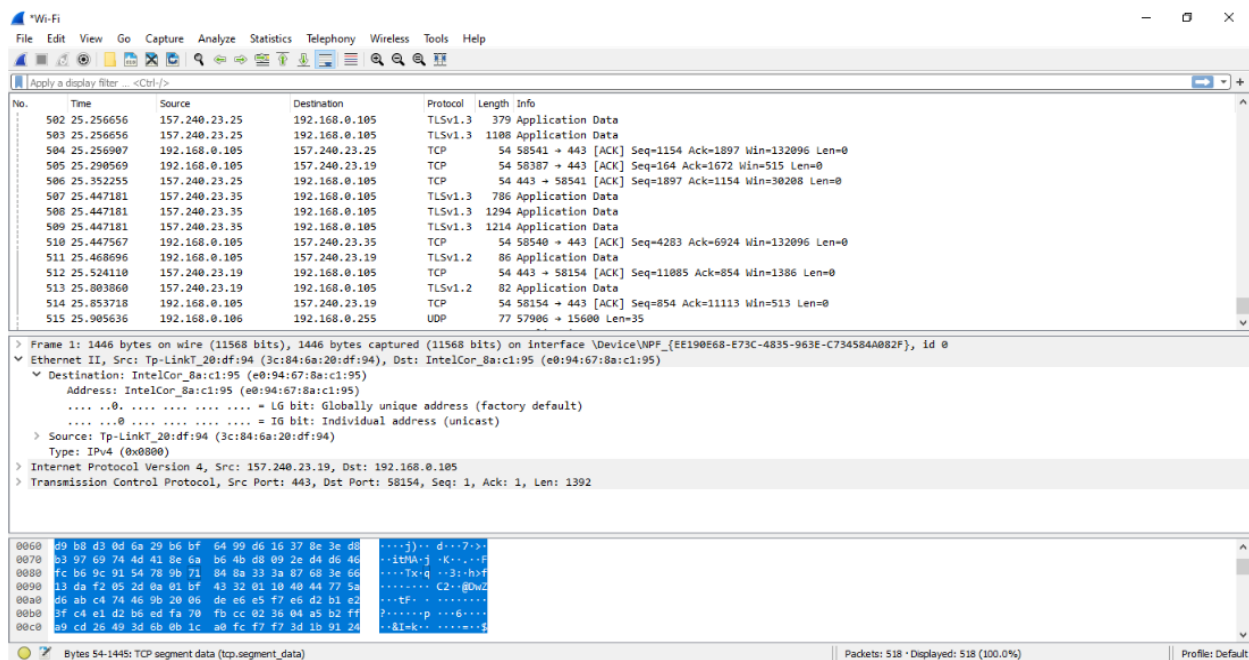


Figure e: Stopping Capture

## Filtering:

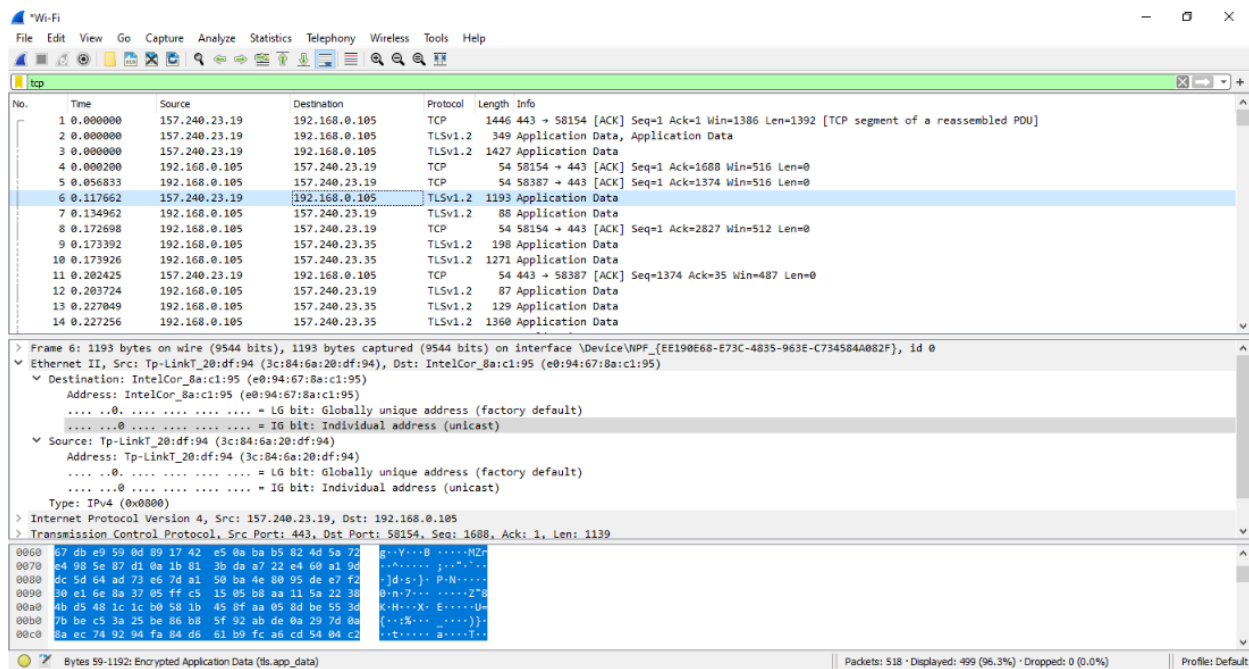


Figure f: Filter by Protocol

A source filter can be applied to restrict the packet view in wireshark to only those packets that

have source IP as mentioned in the filter.

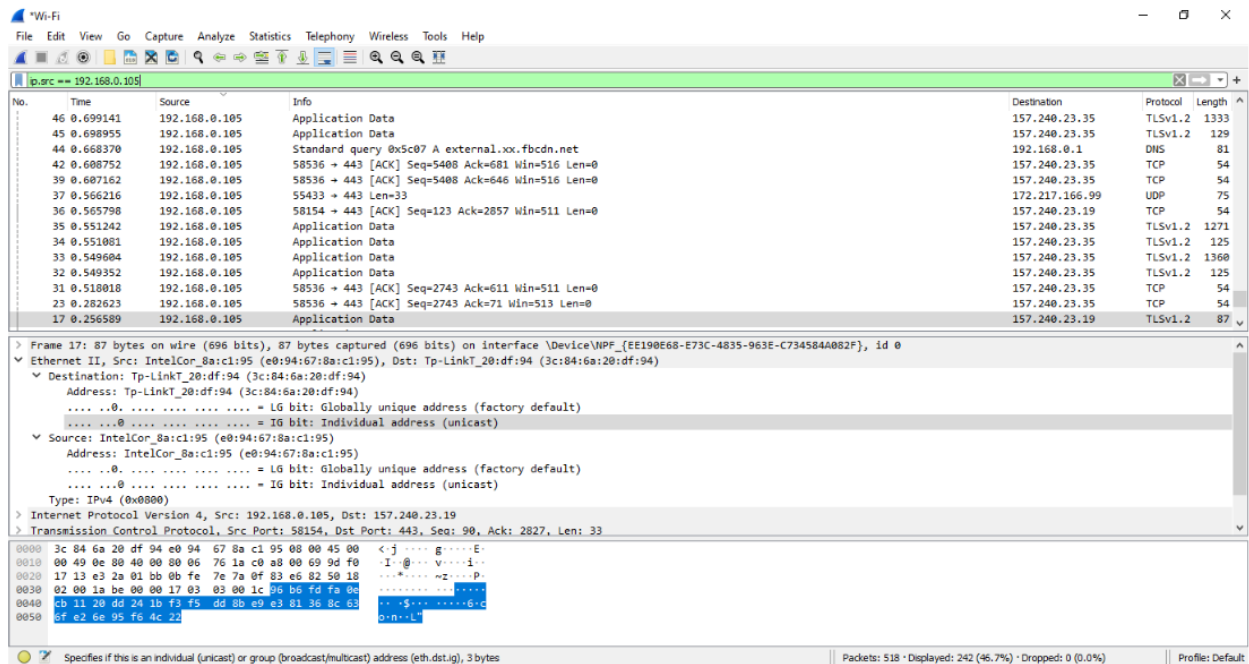


Figure g: Source IP filter

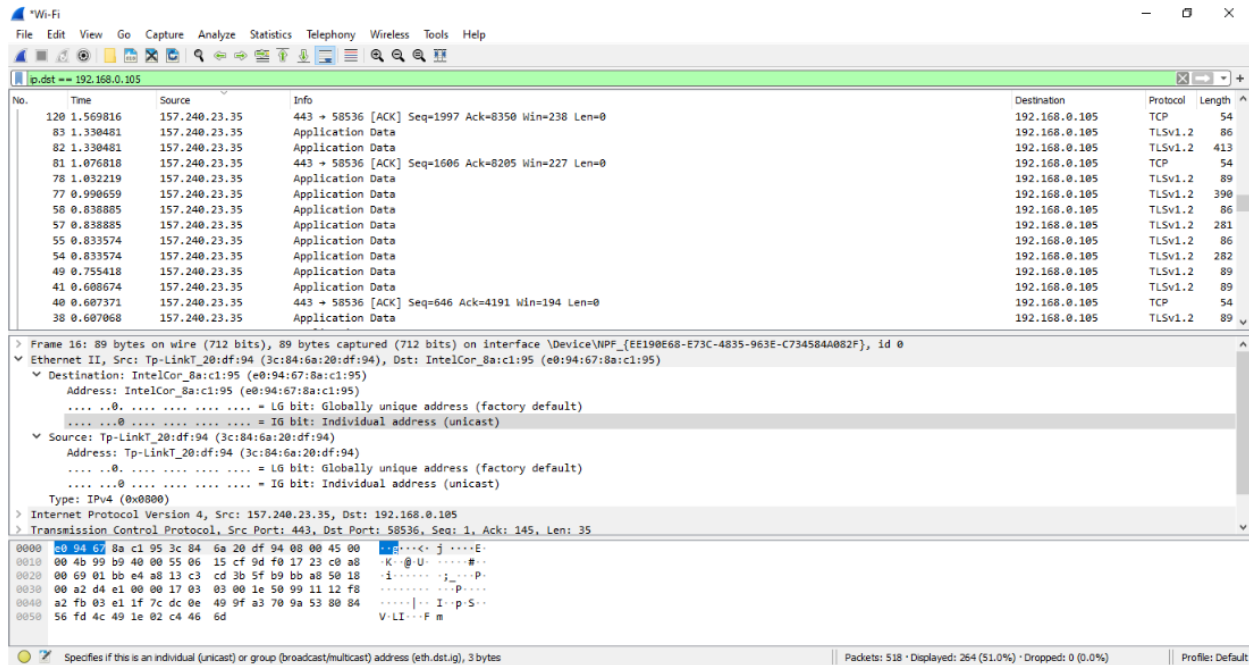


Figure h: Destination IP filter

- Packets and protocols can be analyzed after capture
- Individual fields in protocols can be easily seen
- Graphs and flow diagrams can be helpful in analysis

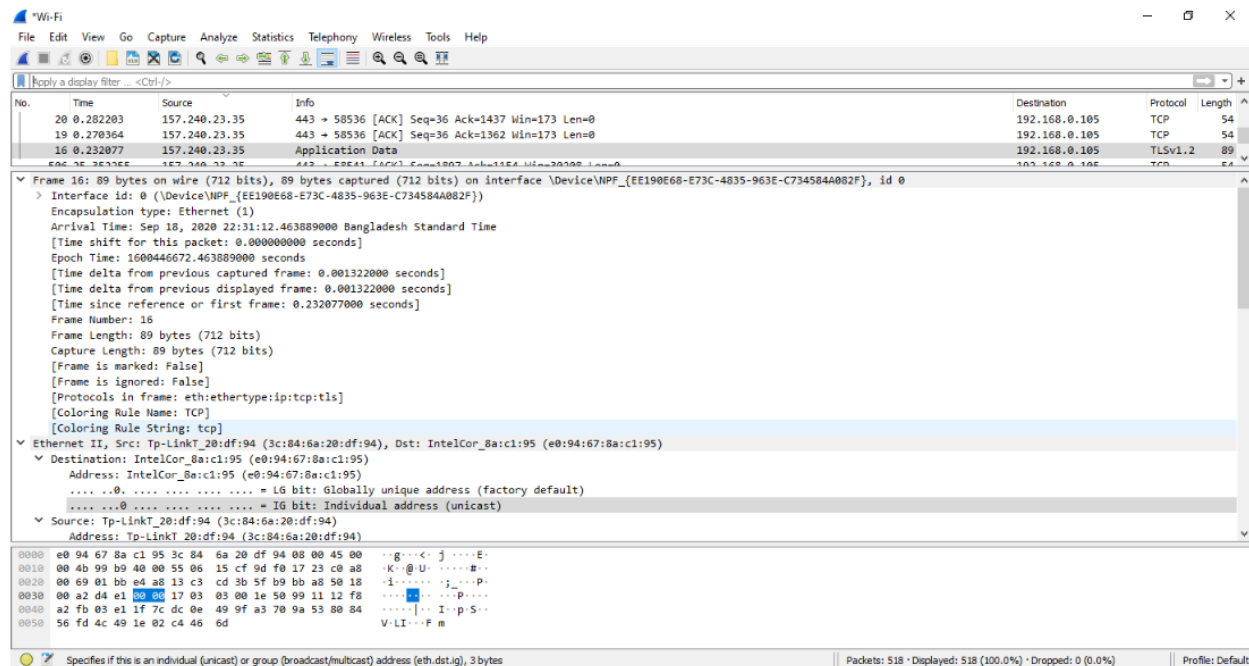


Figure i: Packet Details Pane (Frame segment)

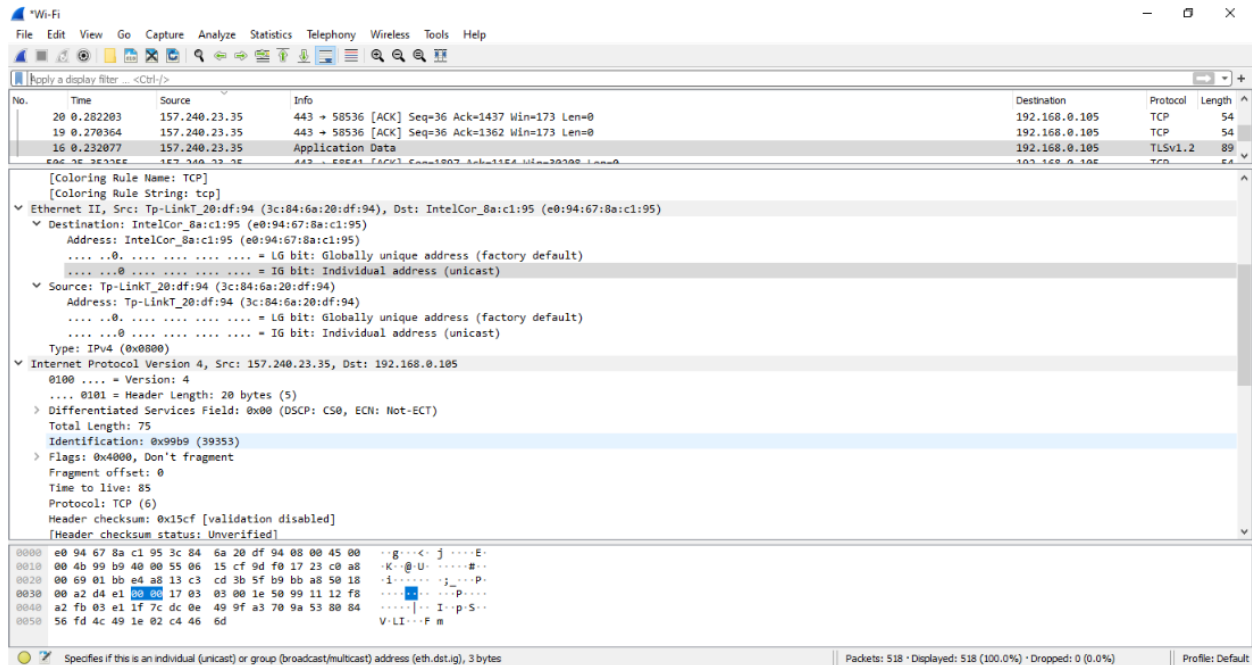


Figure j: Packet Details Pane (Ethernet Segment)

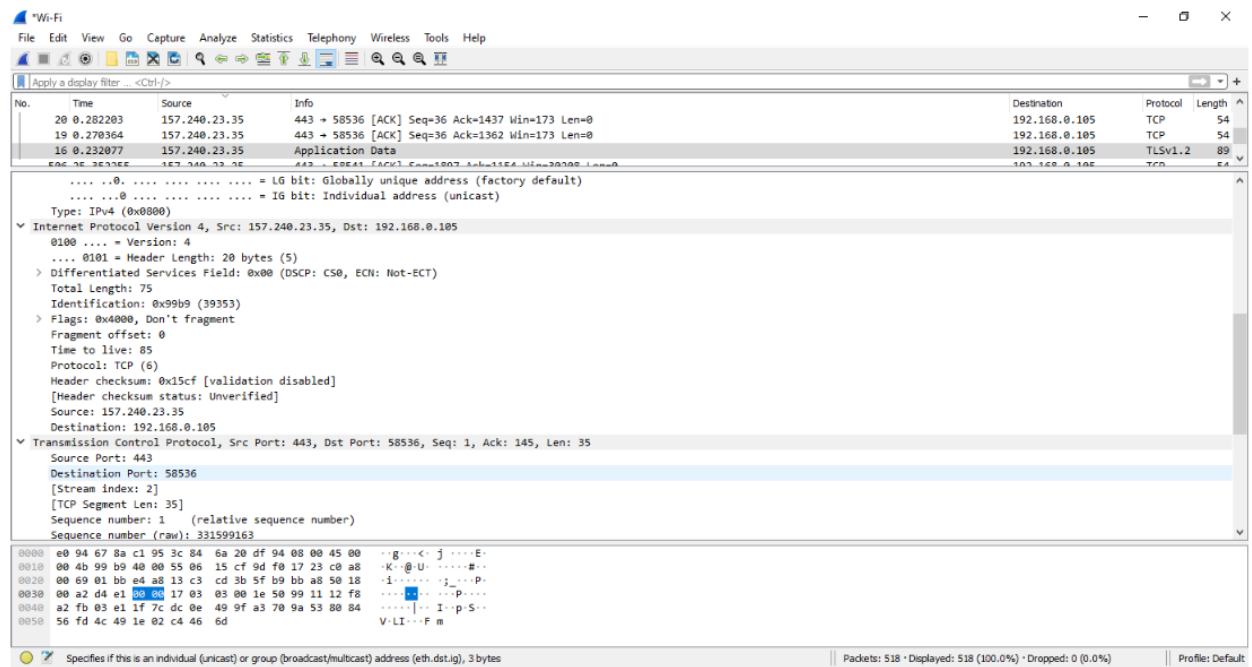


Figure k: Packet Details Pane(IP segment)

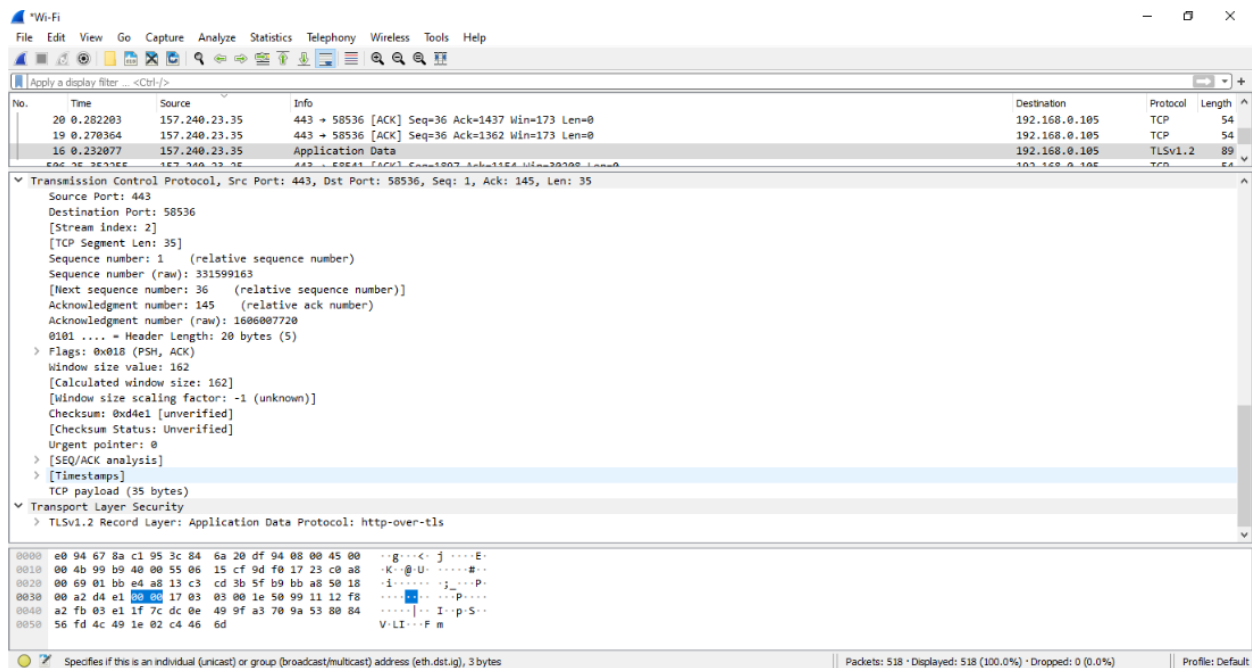


Figure I: Packet Details Pane (TCP Segment)

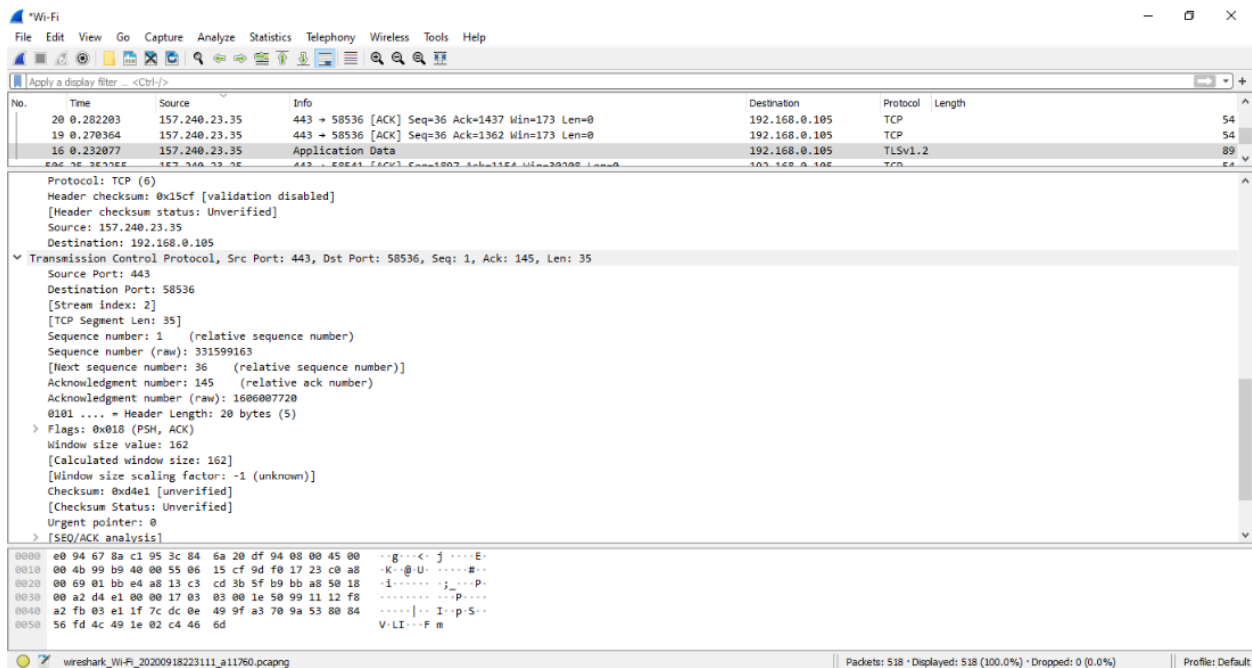


Figure m: Packet Byte Pane



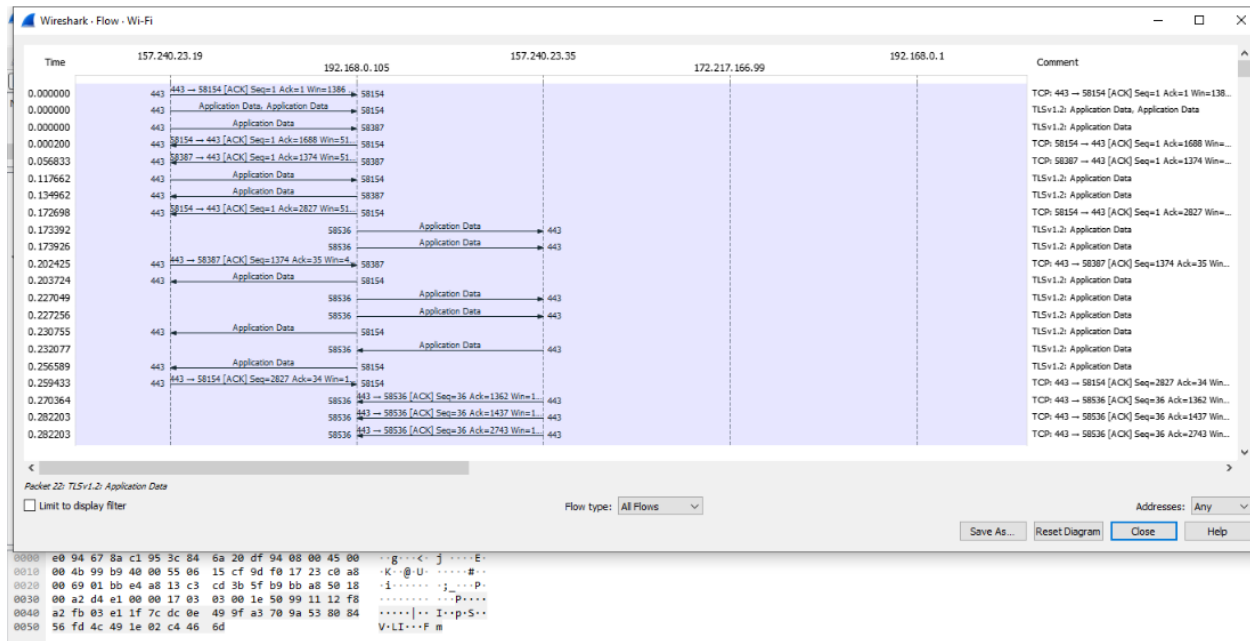


Figure n: Statistics- Flow Graph(All Flows)

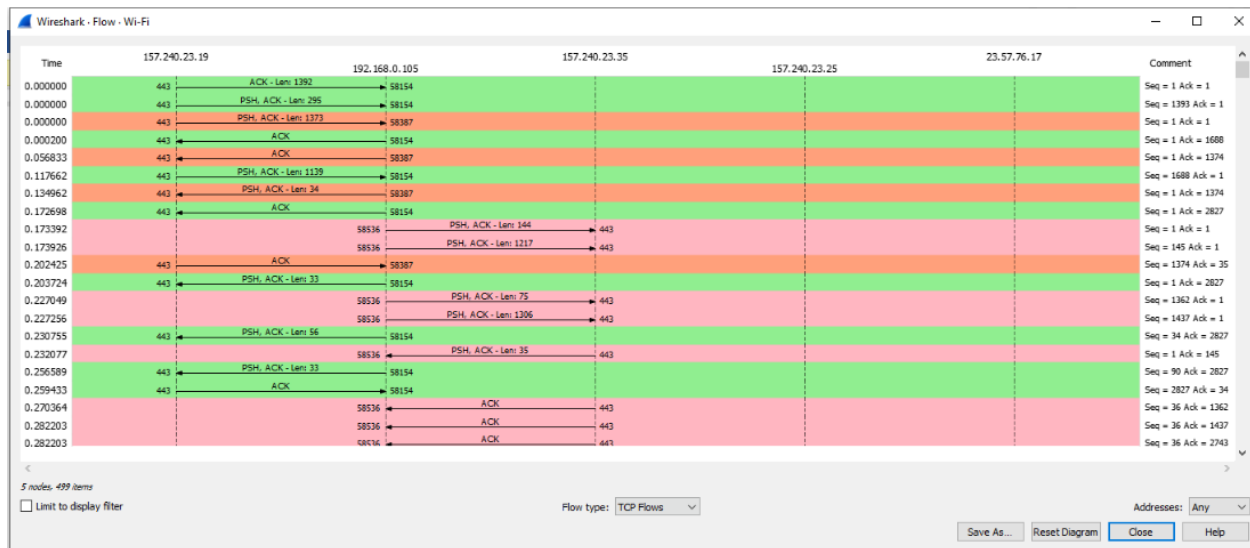


Figure o: Statistics- Flow Graph(TCP Flows)

## Conclusion:

All we need to do just download the Wireshark exe file from the source and install it to the computer. After downloading and installing Wireshark we can easily Capture live packet data from a network interface using Wireshark. The Transfer Control Protocol through the graph have shown us the desired output.

