CN Assignment 8: Analyze TCP, UDP and IPV4 Header using Wireshark

Name: Omkar Oak MIS: 112103099

Div: 2 Batch: T1

Installation:

- 1. I visited the official Wireshark website (https://www.wireshark.org/) to download the appropriate version for my windows operating system.
- 2. I followed the installation instructions for windows and provided the necessary permissions. Wireshark installed successfully, and I was ready to begin packet analysis.

Analyzing Packets:

- 1. I launched Wireshark by clicking on its icon.
- 2. Wireshark prompted me to select a network interface for packet capture. I chose my Wi-Fi interface since I was interested in capturing data from my wireless network.
- 3. Clicking the "Start" button initiated the packet capture process. Wireshark displayed a live feed of captured packets.
- 4. I generated traffic by surfing the web and accessing internet-connected applications.
- 5. To focus on specific packet types, I used display filters. For example, to see only TCP packets, I typed "tcp" in the display filter box. For UDP packets, I used "udp."
- 6. I clicked on individual packets in the list to view detailed information in the packet details pane. Wireshark allowed me to explore various headers, including Ethernet, IP, TCP/UDP, as well as payload data.
- 7. I went to "Statistics" > "Protocol Hierarchy" to get a breakdown of packet types.

Exporting Packets:

- 1. I selected a specific packet for export by clicking on it in the packet list.
- 2. To export the packet details, I went to "File" > "Export Packet Dissections." There, I could choose my preferred export format, such as plain text, HTML, or XML.

Capturing Data:

- 1. When I had gathered all the required data and analyzed it, I clicked the "Stop" button to halt the packet capture.
- 2. I reviewed the captured data, focusing on TCP, UDP, ICMP, HTTP, ARP and IP packets.
- 3. To save the entire packet capture session, I went to "File" > "Save" or "Save As."

 This action created a capture file (in PCAP format) for future analysis or sharing.

Screenshots:

On the next page...





























