

COMP 7003

Assignment 2

Report

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Purpose

A program to capture and analyze network packets in real-time based on custom BPF filters, displaying packet details for Ethernet, ARP, IPv4, TCP and UDP protocols in Hex, Decimal, and Binary for flags.

Requirements

Task	Status
Capture, Analyze and Display packets for UDP, TCP, IP and ARP protocol packets	Fully implemented
(bonus) (if there were a bonus, it would be listed here)	Not implemented

Platforms

tested on:

- Manjaro
- Ubuntu 2023.10

Language

- Python 3.12.5

Documents

- [Design](#)
- [Testing](#)
- [User Guide](#)

Findings

I found that the bit masking and bit shifting for the flag portion of the headers and finding what bytes correlated to what section of the header was challenging for myself.

VIDEO:

<https://youtu.be/4Rah5oOtvFw>