Progressive Education Society’s

**MODERN COLLEGE OF ENGINEERING, Pune -05.**

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

MCA Department

**PRACTICAL SUBMISSION RECORD- A.Y. 2024-25**

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| **Class: FYMCA Div: A**  **Semester: II** | **Course Code: MCA01554**  **Course Name: Laboratory Practice - II** | | **Batch: F2** |
| **Name: Pranav Raju Malwatkar** | | **Roll No: 51037** | |
| **CO No:** **CO517.2** | | **Assignment No: 3** | |

**Program Title: 5)Write a program to analyze following packet formats captured through Wireshark/Cisco**

**for wired networks. 1. Ethernet 2. IP 3.TCP 4. UDP.**

**Program Code:**

from scapy.all import \*

def analyze\_packet(packet):

if packet.haslayer(Ether):

eth = packet[Ether]

print("\nEthernet Frame:")

print(f" Source MAC: {eth.src}")

print(f" Destination MAC: {eth.dst}")

print(f" Type: {eth.type}")

if packet.haslayer(IP):

ip = packet[IP]

print("\nIP Packet:")

print(f" Source IP: {ip.src}")

print(f" Destination IP: {ip.dst}")

print(f" Protocol: {ip.proto}")

if packet.haslayer(TCP):

tcp = packet[TCP]

print("\nTCP Segment:")

print(f" Source Port: {tcp.sport}")

print(f" Destination Port: {tcp.dport}")

print(f" Sequence Number: {tcp.seq}")

print(f" Acknowledgment Number: {tcp.ack}")

print(f" Flags: {tcp.flags}")

if packet.haslayer(UDP):

udp = packet[UDP]

print("\nUDP Datagram:")

print(f" Source Port: {udp.sport}")

print(f" Destination Port: {udp.dport}")

print(f" Length: {udp.len}")

def analyze\_pcap(file\_path):

packets = rdpcap(file\_path)

print(f"Analyzing {len(packets)} packets from {file\_path}...\n")

for packet in packets:

analyze\_packet(packet)

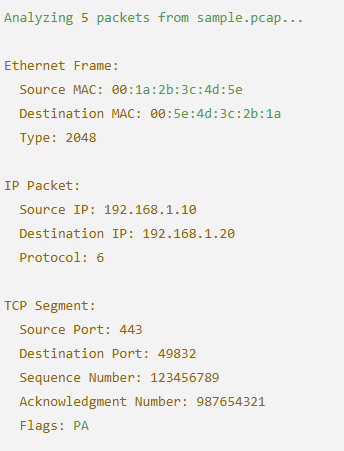
print("-" \* 50)

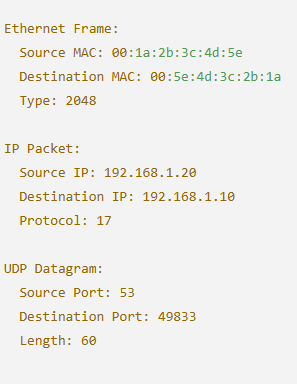
if \_\_name\_\_ == "\_\_main\_\_":

pcap\_file = input("Enter the path to the PCAP file: ")

analyze\_pcap(pcap\_file)

**Output:**

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