**Information Assurance and Security (IT352) Lab Program -2**

Consider the given hex-dump file as input file during run time of the program and assume that it consists of more than one packets that are captured using packet sniffer. Further, assume that each hex dump represents one complete Ethernet frame. Consider only one hex dump at a time to demonstrate/simulate/show the Packet Filter Firewall operation. First, extract and display all the fields of Ethernet header, IP header and Transport Layer header on the terminal. Read the appropriate field that decides whether the payload of the packet is TCP/UDP segment. Display the same on the terminal. Use the applicable extracted values and the given ACL file to demonstrate the operation of the Packet Filter Firewall.

Display the obtained output on terminal

Protocol : TCP

mac src : 6c.c2.17.77.0.a6 mac dest : 50.eb.1a.90.61.32

ip src : 10.100.53.123 ip dest : 54.72.51.202

port src : 1949 port dest : 8282

**Test Cases:**

**Test Case 1**

50 eb 1a 90 61 32 6c c2 17 77 00 a6 08 0045 00 00 29 1f 54 40 00 80 06 31 8a 0a 64 35 7b 36 48 33 ca07 9d 20 5a 49 6c d0 2e 09 c1 e2 98 50 10 00 fb d6 fb 00 00 00

**Test Case 2**

6c c2 17 77 00 a6 50 eb 1a 90 61 32 08 00 45 00 00 34 98 af 40 00 e9 06 4f 23 36 48 33 ca 0a 64 35 7b 20 5a 07 9d 09 c1 e2 98 49 6c d0 2f 80 10 01 a6 6d 02 00 00 01 01 05 0a 49 6c d0 2e 49 6c d0 2f

**Test Case 3**

ff ff ff ff ff ff 30 9c 23 50 ce c0 08 00 45 00 00 44 73 0e 00 00 80 11 85 ad 0a 64 37 8a ff ff ff ff f2 1c 07 9b 00 30 de 69 50 6b 70 36 70 74 64 49 37 71 7a 49 4a 46 6b 55 33 47 79 61 58 67 75 36 65 51 7a 64 39 54 70 6e 30 43 2f 51 38 34 4d 41

**Test Case 4**

50 eb 1a 90 61 32 6c c2 17 77 00 a6 08 00 45 00 00 29 73 0b 40 00 80 06 ac 4d 0a 64 35 7b 0d 21 8e 76 09 13 01 bb 1c 8d 82 1c 6b 7b 7f e1 50 10 00 fe 3e 8b 00 00

**Test Case 5**

6c c2 17 77 00 a6 50 eb 1a 90 61 32 08 00 45 00 00 34 c0 eb 40 00 3f 06 9f 62 0d 21 8e 76 0a 64 35 7b 01 bb 09 13 6b 7b 7f e1 1c 8d 82 1d 80 10 00 f5 cb 28 00 00 01 01 05 0a 1c 8d 82 1c 1c 8d 82 1d