Information Assurance and Security (IT352) Lab Program -3

Write a python program using Scapy library to capture the real-time network traffic coming to Network Interface Card of the host system (on which system student is working). Use the given filter option to set into the sniff( ) function before capturing the real-time network traffic. Display the entire captured packet in raw format onto the terminal of the host system and also the display all the header fields of the captured packet (Ethernet, IP and ICMP/TCP/UDP) in human understandable form onto the terminal of the host system. Further, store the entire obtained output into an appropriate output file. Demonstrate the Packet Filtering Firewall operations by using appropriate extracted header fields of the captured packet as well as given ACL file.

Craft IP packet in real-time using given send() / sendp() / sr() / sr1() function of the Scapy tool. Use only the given source and destination IP addresses, source and destination port numbers to craft the packet.

Sample Text Case

- Use the give ACL file.
- Use 10.100.53.3, 10.100.54.1 as source IP address and destination IP address, respectively. Use source port as 12345, destination port as 80. Use these details with sr() function to craft the packet and send the crafted packet in real-time.
- Use source IP as 10.100.53.3 to set the filter option in sniff() function.

Submit program file, all screenshots and all output files (output.txt) to the Email ID which will be circulated with the text case file before the deadline.

Email subject should be IAS(IT352)-Lab-Program-3-Related-Files

File name of the program	:	RegisterNo_IT352_P3
		(P3 indicates Lab Program Number-3)
File name of the screenshot	:	RegisterNo_IT352_P3_S1

(S1 indicates screenshot for the first test case, similarly, for other test cases S2, S3, S4, S5)

File name of the Output File	:	RegisterNo_IT352_P3_Output_TC1.txt

(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC55)

Date of Laboratory	:	31st January 2020, Friday
Deadline of Submission	:	31st January 2020 (on or before 6:00PM)

Note:

- Clarify the doubt(s) (if any) on or before 29th January 2020 (Wednesday) afternoon.
- No/Zero marks for incomplete submission/late submission/absent for the Lab/incomplete program.