**Assignment Number 5**

Python with Kali Linux

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**Roll No:** SCETBTB305

Title: **Packet Sniffer for monitoring network traffic**

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from scapy.all import \*

def main():

global language

intro()

menu()

language = eval(raw\_input("Please type 1-3 from the menu or press 4 to quit. "))

if language == 1:

src1 = raw\_input("Enter the source IP: ")

dest1 = raw\_input("Enter the destination IP: ")

msg = raw\_input("Enter the message: ")

send(IP(src= '192.168.1.103' ,dst= '192.168.1.1' )/ICMP()/ msg)

elif language == 2:

sniff(filter='tcp port 80',prn=sniffing, count=10)

elif language == 3:

sniff(prn=sniffer, filter="arp", count = 10)

elif language == 4:

print("Good Bye! ")

else: #validate selection

print("That is not a valid selection, please type the correct number\n")

main() #call the main and start the loop again

while language == 4:

break #exits out of the program

else:

replayMenu()

def intro():

print("Welcome to Packet Sniffer Program!\n")

def menu():

print("Select a option from below")

print("1. Send a packet from source to destination")

print("2. Sniffing TCP data of Port 80")

print("3. Sniffing arp packets")

print("4. Quit\n")

def replayMenu():

startover = ""

startover = raw\_input("Would you like to start from the beginning, yes or no? ")

while startover.lower() != "yes":

print("Thanks for using our Packet sniffer Program! Bye! ")

break

else:

main()

def sniffing(pkt):

print("Source IP: {} <--HTTP--> Dest IP: {} Dest Port: {} Payload:\n{}\n\n".format(pkt[IP].src,pkt[IP].dst,pkt[TCP].dport,pkt[TCP].payload))

def sniffer(pkt):

if pkt[ARP].op == 1: #who-has (request)

return 'Request: {} is asking about {}'.format(pkt[ARP].psrc, pkt[ARP].pdst)

if pkt[ARP].op == 2: #is-at (response)

return '\*Response: {} has address {}'.format(pkt[ARP].hwsrc, pkt[ARP].psrc)

main()

"""------------OUTPUT------------------------------

root@kali:~# /Work\_stuff/FinalYear/Kali$ sudo python Assignment\_1.py

Welcome to Packet Sniffer Program!

Select a option from below

1. Send a packet from source to destination

2. Sniffing TCP data of Port 80

3. Sniffing arp packets

4. Quit

Please type 1-3 from the menu or press 4 to quit. 1

Enter the source IP: 192.168.1.103

Enter the destination IP: 192.168.1.1

Enter the message: Hello World

.

Sent 1 packets.

Would you like to start from the beginning, yes or no? yes

Welcome to Packet Sniffer Program!

Select a option from below

1. Send a packet from source to destination

2. Sniffing TCP data of Port 80

3. Sniffing arp packets

4. Quit

Please type 1-3 from the menu or press 4 to quit. 2

Source IP: 192.168.1.114 <--HTTP--> Dest IP: 117.18.237.29 Dest Port: 80 Payload:

Source IP: 192.168.1.114 <--HTTP--> Dest IP: 117.18.237.29 Dest Port: 80 Payload:

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Source IP: 192.168.1.114 <--HTTP--> Dest IP: 117.18.237.29 Dest Port: 80 Payload:

Source IP: 192.168.1.114 <--HTTP--> Dest IP: 35.222.85.5 Dest Port: 80 Payload:

Source IP: 35.222.85.5 <--HTTP--> Dest IP: 192.168.1.114 Dest Port: 33720 Payload:

Source IP: 192.168.1.114 <--HTTP--> Dest IP: 35.222.85.5 Dest Port: 80 Payload:

Source IP: 192.168.1.114 <--HTTP--> Dest IP: 35.222.85.5 Dest Port: 80 Payload:

GET / HTTP/1.1

Host: connectivity-check.ubuntu.com

Accept: \*/\*

Connection: close

Source IP: 35.222.85.5 <--HTTP--> Dest IP: 192.168.1.114 Dest Port: 33720 Payload:

Would you like to start from the beginning, yes or no? yes

Welcome to Packet Sniffer Program!

Select a option from below

1. Send a packet from source to destination

2. Sniffing TCP data of Port 80

3. Sniffing arp packets

4. Quit

Please type 1-3 from the menu or press 4 to quit. 3

Request: 192.168.1.1 is asking about 192.168.1.102

Request: 192.168.1.1 is asking about 192.168.1.101

Request: 192.168.1.1 is asking about 192.168.1.122

Request: 192.168.1.114 is asking about 192.168.1.1

\*Response: 38:6b:1c:05:46:c4 has address 192.168.1.1

Request: 192.168.1.1 is asking about 192.168.1.122

Request: 192.168.1.1 is asking about 192.168.1.103

Request: 192.168.1.1 is asking about 192.168.1.103

Request: 192.168.1.1 is asking about 192.168.1.102

Request: 192.168.1.1 is asking about 192.168.1.104

Would you like to start from the beginning, yes or no? yes

Welcome to Packet Sniffer Program!

Select a option from below

1. Send a packet from source to destination

2. Sniffing TCP data of Port 80

3. Sniffing arp packets

4. Quit

Please type 1-3 from the menu or press 4 to quit. 4

Good Bye!

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"""