

Assignment

Question - 1

- 1) Python library Scapy, analyze the network packets associated with suspicious IP address

```
from scapy.all import *
```

```
def analyze_packets (ip-address):
```

```
    packets = sniff (filters = "host" + ip-address, count = 1000)
```

```
    print ("Analyzing packets for IP address", ip-address)
```

```
    print ("Total packets captured:", len(packets))
```

```
# Analyze packet headers or payload
```

```
for packet in packets:
```

```
    print (packet.summary ())
```

```
# Replace "Suspicious - ip-address" with actual IP address
```

```
suspicious - ip-address = "x.x.x.x"
```

```
analyze_packets (suspicious - ip-address)
```

Expected Code

```
1) from scapy.all import *
```

```
def packet_analysis(packet):
```

```
    source_ip = packet[IP].src
```

```
    destination_ip = packet[IP].dst
```

```
    protocol = packet[IP].proto
```

```
# print packet details
```

```
print(f"Source IP: {source_ip}, Destination IP: {destination_ip},  
      Protocol: {protocol}")
```

```
# Sniff network packets
```

```
def start_sniffing():
```

```
    print("Starting packet sniffing...")
```

```
    sniff(prn=packet_analysis, store=False)
```