

CS212 – PROJECT

PACKET SNIFFER USING SCAPY PYTHON

Things to install in your system in order to run the file

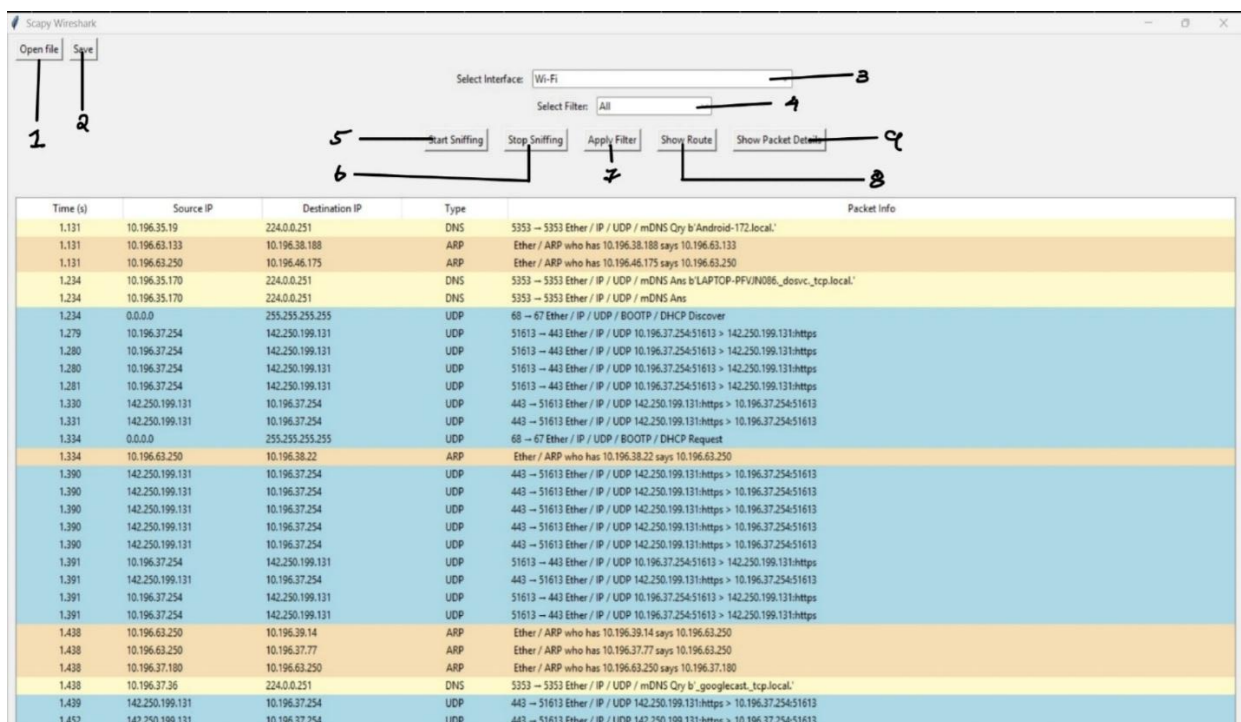
- NCAP
Source : (<https://nmap.org/npcap/>)
- SCAPY
- NETWORKX
- MATHPLOTLIB

Git Hub Link : https://github.com/sayanthsunil2005/CS212_PROJECT

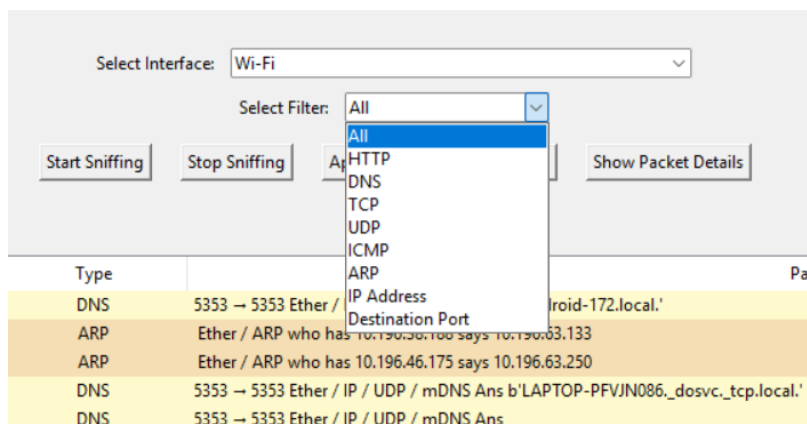
For Running the File

- First make sure that the above mentioned files are installed in your system
- download the program file named “project.py” from the github link given above
- run the file in your terminal or in vs code

Graphical User Interface



1. **Open file Button** : used to open file of packets which is in .pcap format
2. **Save Button** : used to save captured files in .pcap format
3. **Select Interface tab** : in this tab you can select the interfaces like wifi ethernet etc
- 4.



Select Filter tab : using this tab you can filter packets with difference in protocols

- HTTP
- DNS
- TCP
- UDP
- ICMP
- ARP
- IP Address
- Destination port

Only in case of ip address and destination port you will get a text box in that you can enter the ip address or destination port number respectively

After selecting click Apply filter button .you can see the filtered results

5. **Start sniffing button** : this button is used to start capturing the packets
6. **Stop Sniffing button** : this button is used to stop capturing the packets after capturing starts
7. **Apply filter Button** : used to show the filtered results after selecting the desired filter

```

graph LR
    A[10.155.103.129] --> B[142.250.192.106]
    A --> C[10.196.63.250]
    C --> D[10.250.209.251]
    E[14.139.106.145] --> D
  
```

```

Packet Details
-
□
X

Frame Info:
- Packet Length: 1292 bytes
- Arrival Time: 1.279455 s

<member 'name' of 'Packet' objects>:
- dst: 00:04:96:9a:82:da
- src: ac:19:8e:e8:51:ac
- type: 2048

<member 'name' of 'Packet' objects>:
- version: 4
- ihl: 5
- tos: 0
- len: 1278
- id: 28306
- flags: DF
- frag: 0
- ttl: 128
- proto: 17
- chksum: 29
- src: 10.196.37.254
- dst: 142.250.199.131
- options: []

<member 'name' of 'Packet' objects>:
- sport: 51613
- dport: 443
- len: 1258
- chksum: 8514

<member 'name' of 'Packet' objects>:
- load:
b'\xcf\x00\x00\x01\x080\x08\xb8=\xc9\x89\x98$\x00@F\x00\xfa\xed\x0b*\x8dp\xea\x88a\xb04y\xd2:\xa0\x02\xcf70R\xcf\x01\x86%\x92~~\x04\xac\xff\x1c9\xf3\x0ef\xee\x8bf\xae\x9c9t\xe9\x06Z\x9a\xbd\x9a\x07\x14\xde0\xb0F\x87\x85~~\xa6n\xb65:\x8e\x94\x7f\xa3WzD\x89w\xfb\xbc\x86\xdfRz\xfb\x89\x82\xdf\x7f\x4fL7\x88\x89U\xe8c\xfe\x0c\x0f0\x4=\xd3\xcf\xde\x98MI\x8a12\\x9bh\x87\\xdd\x9c\x85I\xedu"\xc4\x1b\x9f'

```