

# **COMP 7003**

## **Introduction to Information and Network Security**

*Assignment-03*

*Testing*

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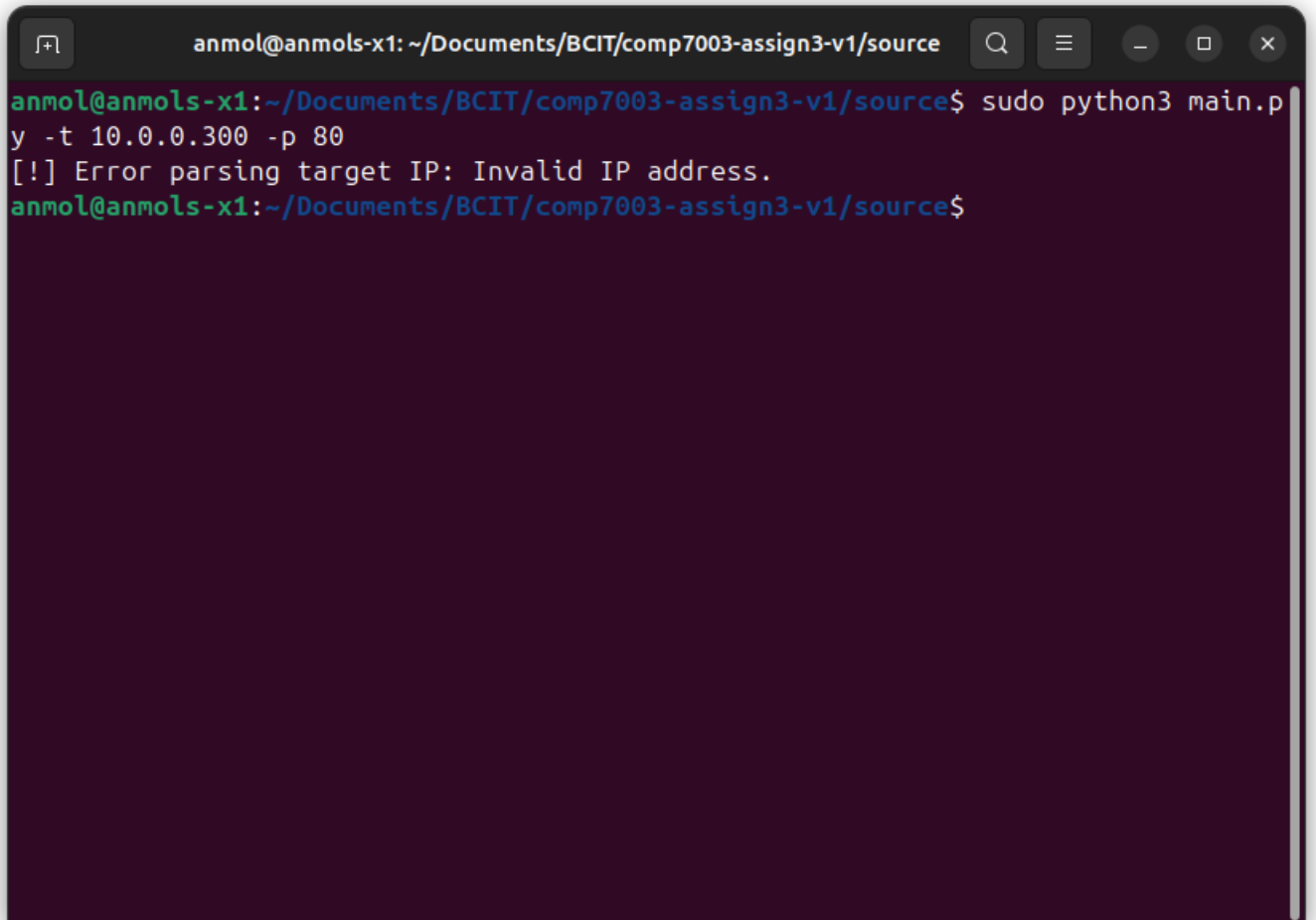
Course Reference Number (CRN): 91662

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Test	Expected	Actual	Screenshot
Incorrect IP	fail	pass	<a href="#">Test 1</a>
Incorrect Port	fail	pass	<a href="#">Test 2</a>
Incorrect Filter	fail	fail	<a href="#">Test 3</a>
Too many arguments	fail	pass	<a href="#">Test 4</a>
Localhost Scan	pass	pass	<a href="#">Test 5</a>
Detects local subnet on all ports	pass	pass	<a href="#">Test 6</a>
Remote host, scanning all ports	pass	pass	<a href="#">Test 7</a>
Remote all Hosts scanning a specific port	pass	pass	<a href="#">Test 8</a>
1 host, 1 port	pass	pass	<a href="#">Test 9</a>
1 Host, many ports	pass	pass	<a href="#">Test 10</a>
many host 1 port	pass	pass	<a href="#">Test 11</a>
many host, many ports	pass	pass	<a href="#">Test 12</a>

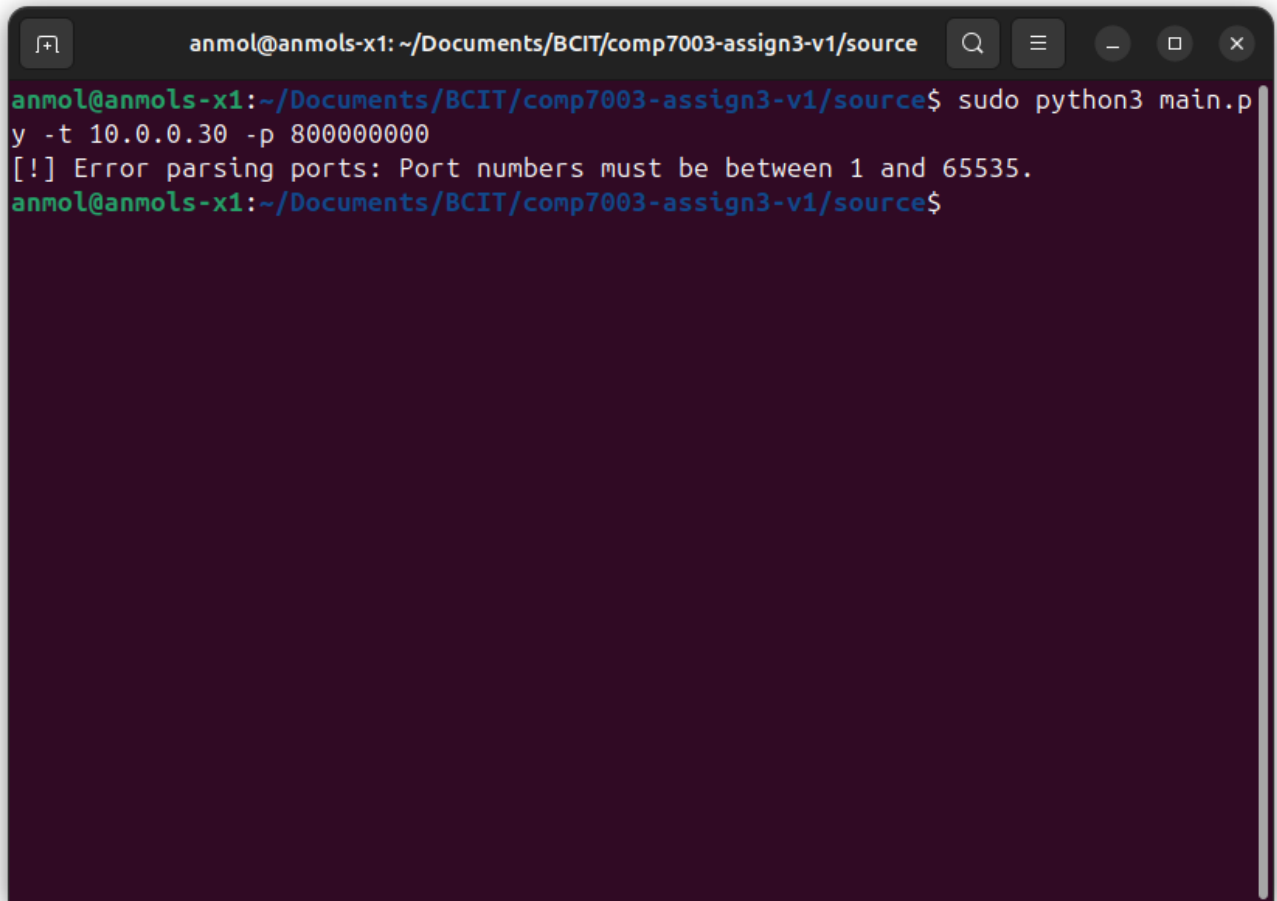
# Tests

## Test 01



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.300 -p 80
[!] Error parsing target IP: Invalid IP address.
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

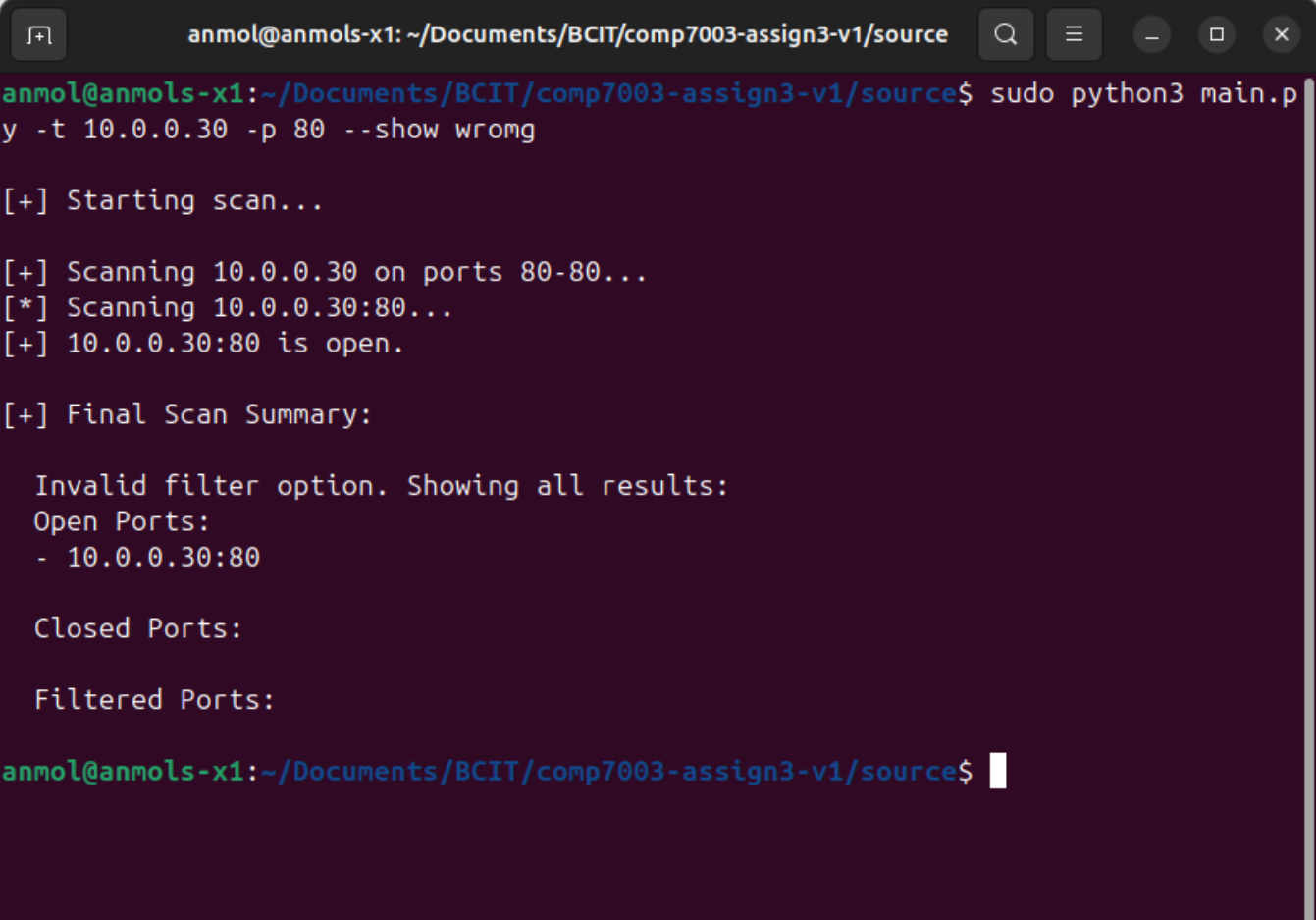
## Test 02



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30 -p 8000000000
[!] Error parsing ports: Port numbers must be between 1 and 65535.
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

The image shows a terminal window with a dark background. The title bar at the top reads "anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source". The terminal content shows a user running the command "sudo python3 main.py -t 10.0.0.30 -p 8000000000". The output is an error message: "[!] Error parsing ports: Port numbers must be between 1 and 65535." The prompt "anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source\$" is visible at the bottom.

## Test 03



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30 -p 80 --show wrong

[+] Starting scan...

[+] Scanning 10.0.0.30 on ports 80-80...
[*] Scanning 10.0.0.30:80...
[+] 10.0.0.30:80 is open.

[+] Final Scan Summary:

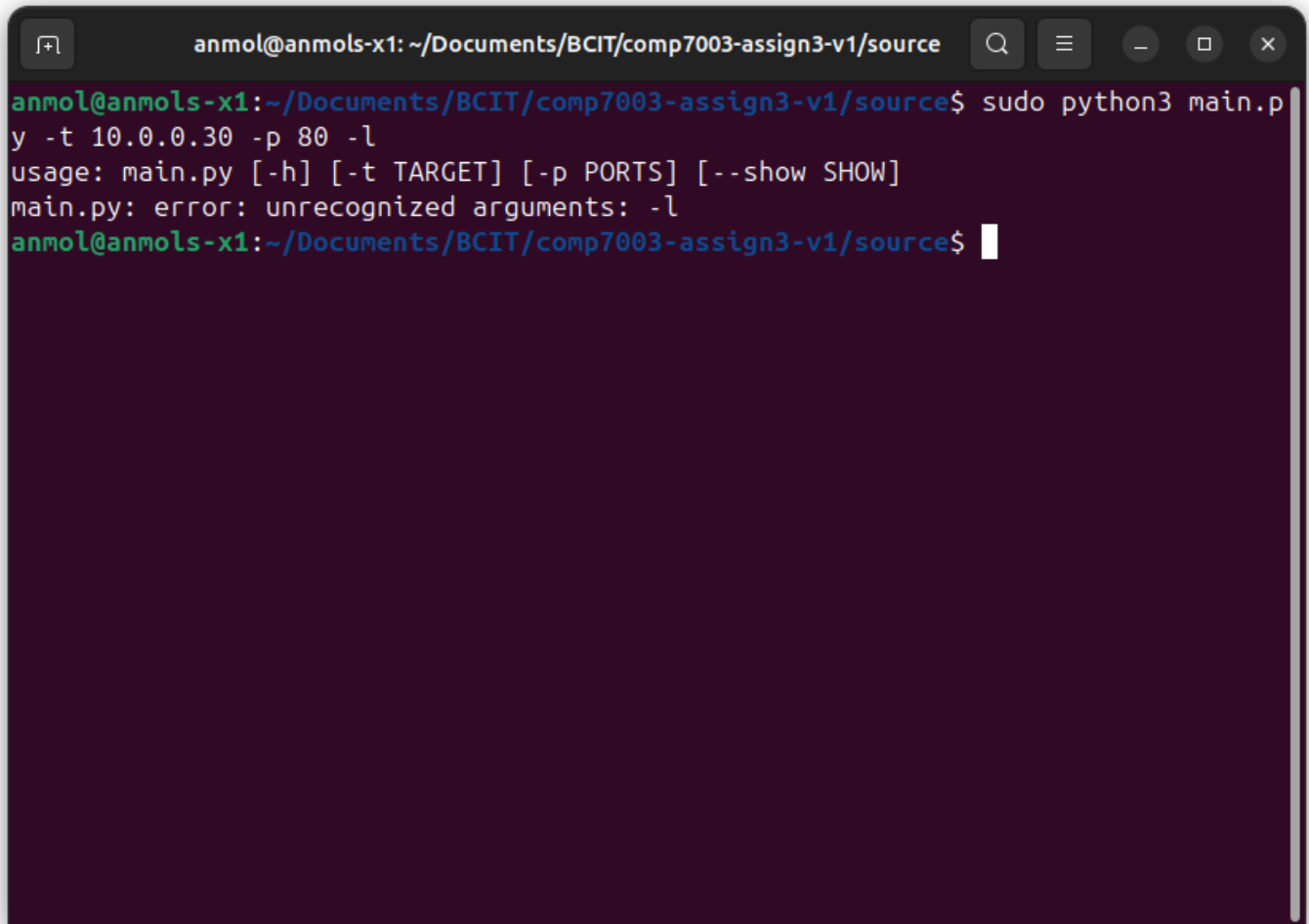
Invalid filter option. Showing all results:
Open Ports:
- 10.0.0.30:80

Closed Ports:

Filtered Ports:

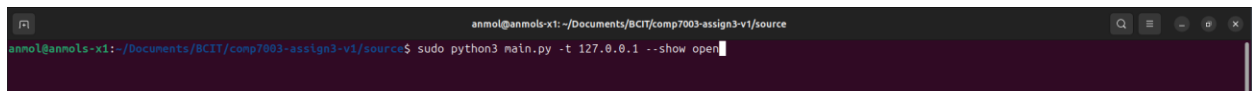
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

## Test 04



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30 -p 80 -l
usage: main.py [-h] [-t TARGET] [-p PORTS] [--show SHOW]
main.py: error: unrecognized arguments: -l
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

## Test 05



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 127.0.0.1 --show open
```

```
anmol@annols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source

[-] 127.0.0.1:65516 is closed.
[*] Scanning 127.0.0.1:65517...
[-] 127.0.0.1:65517 is closed.
[*] Scanning 127.0.0.1:65518...
[-] 127.0.0.1:65518 is closed.
[*] Scanning 127.0.0.1:65519...
[-] 127.0.0.1:65519 is closed.
[*] Scanning 127.0.0.1:65520...
[-] 127.0.0.1:65520 is closed.
[*] Scanning 127.0.0.1:65521...
[-] 127.0.0.1:65521 is closed.
[*] Scanning 127.0.0.1:65522...
[-] 127.0.0.1:65522 is closed.
[*] Scanning 127.0.0.1:65523...
[-] 127.0.0.1:65523 is closed.
[*] Scanning 127.0.0.1:65524...
[-] 127.0.0.1:65524 is closed.
[*] Scanning 127.0.0.1:65525...
[-] 127.0.0.1:65525 is closed.
[*] Scanning 127.0.0.1:65526...
[-] 127.0.0.1:65526 is closed.
[*] Scanning 127.0.0.1:65527...
[-] 127.0.0.1:65527 is closed.
[*] Scanning 127.0.0.1:65528...
[-] 127.0.0.1:65528 is closed.
[*] Scanning 127.0.0.1:65529...
[-] 127.0.0.1:65529 is closed.
[*] Scanning 127.0.0.1:65530...
[-] 127.0.0.1:65530 is closed.
[*] Scanning 127.0.0.1:65531...
[-] 127.0.0.1:65531 is closed.
[*] Scanning 127.0.0.1:65532...
[-] 127.0.0.1:65532 is closed.
[*] Scanning 127.0.0.1:65533...
[-] 127.0.0.1:65533 is closed.
[*] Scanning 127.0.0.1:65534...
[-] 127.0.0.1:65534 is closed.
[*] Scanning 127.0.0.1:65535...
[-] 127.0.0.1:65535 is closed.

[+] Final Scan Summary:

Open Ports:
- 127.0.0.1:22
- 127.0.0.1:631
- 127.0.0.1:7070
- 127.0.0.1:35265
- 127.0.0.1:52622

anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

```
anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo lsof -i :22
COMMAND PID USER  FD  TYPE DEVICE SIZE/OFF NODE NAME
systemd  1 root 253u IPv6  7998      0t0  TCP *:ssh (LISTEN)
sshd     1631 root   3u  IPv6  7998      0t0  TCP *:ssh (LISTEN)

anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo lsof -i :631
COMMAND PID USER  FD  TYPE DEVICE SIZE/OFF NODE NAME
cupsd    1601 root    6u  IPv6 14989      0t0  TCP ip6-localhost:ipp (LISTEN)
cupsd    1601 root    7u  IPv4 14990      0t0  TCP localhost:ipp (LISTEN)

anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo lsof -i :7070
COMMAND PID USER  FD  TYPE DEVICE SIZE/OFF NODE NAME
anydesk  1619 root   75u  IPv4 15042      0t0  TCP *:7070 (LISTEN)
anydesk  1619 root   76u  IPv6 15043      0t0  TCP *:7070 (LISTEN)

anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo lsof -i :35265
COMMAND PID USER  FD  TYPE DEVICE SIZE/OFF NODE NAME
github-de 4598 annol  50u  IPv4 34818      0t0  TCP localhost:35265 (LISTEN)

anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo lsof -i :52622
anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```



## Test 06

```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -p 80 --show open
[*] No target specified. Scanning local subnet: 10.0.0.0/24

[+] Starting scan...

[+] Scanning 10.0.0.0 on ports 80-80...
[-] 10.0.0.0 is unreachable. Skipping...

[+] Scanning 10.0.0.1 on ports 80-80...
[*] Scanning 10.0.0.1:80...
[+] 10.0.0.1:80 is open.

[+] Scanning 10.0.0.2 on ports 80-80...
[-] 10.0.0.2 is unreachable. Skipping...

[+] Scanning 10.0.0.3 on ports 80-80...
[-] 10.0.0.3 is unreachable. Skipping...

[+] Scanning 10.0.0.4 on ports 80-80...
[-] 10.0.0.4 is unreachable. Skipping...

[+] Scanning 10.0.0.5 on ports 80-80...
[-] 10.0.0.5 is unreachable. Skipping...

[+] Scanning 10.0.0.6 on ports 80-80...
[-] 10.0.0.6 is unreachable. Skipping...

[+] Scanning 10.0.0.7 on ports 80-80...
[-] 10.0.0.7 is unreachable. Skipping...

[+] Scanning 10.0.0.8 on ports 80-80...
[-] 10.0.0.8 is unreachable. Skipping...

[+] Scanning 10.0.0.9 on ports 80-80...
[-] 10.0.0.9 is unreachable. Skipping...

[+] Scanning 10.0.0.10 on ports 80-80...
[-] 10.0.0.10 is unreachable. Skipping...

[+] Scanning 10.0.0.11 on ports 80-80...
[-] 10.0.0.11 is unreachable. Skipping...

[+] Scanning 10.0.0.12 on ports 80-80...
[-] 10.0.0.12 is unreachable. Skipping...

[+] Scanning 10.0.0.13 on ports 80-80...
^C[-] 10.0.0.13 is unreachable. Skipping...

[+] Scanning 10.0.0.14 on ports 80-80...
^C[-] 10.0.0.14 is unreachable. Skipping...
```

## Test 07

```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30

[+] Starting scan...

[+] Scanning 10.0.0.30 on ports 1-65535...
[*] Scanning 10.0.0.30:1...
WARNING: Mac address to reach destination not found. Using broadcast.
[?] 10.0.0.30:1 is filtered.
[*] Scanning 10.0.0.30:2...
[-] 10.0.0.30:2 is closed.
[*] Scanning 10.0.0.30:3...
[-] 10.0.0.30:3 is closed.
[*] Scanning 10.0.0.30:4...
[-] 10.0.0.30:4 is closed.
[*] Scanning 10.0.0.30:5...
[-] 10.0.0.30:5 is closed.
[*] Scanning 10.0.0.30:6...
[-] 10.0.0.30:6 is closed.
[*] Scanning 10.0.0.30:7...
[-] 10.0.0.30:7 is closed.
[*] Scanning 10.0.0.30:8...
[-] 10.0.0.30:8 is closed.
[*] Scanning 10.0.0.30:9...
[-] 10.0.0.30:9 is closed.
[*] Scanning 10.0.0.30:10...
[-] 10.0.0.30:10 is closed.
[*] Scanning 10.0.0.30:11...
[-] 10.0.0.30:11 is closed.
[*] Scanning 10.0.0.30:12...
[-] 10.0.0.30:12 is closed.
[*] Scanning 10.0.0.30:13...
[-] 10.0.0.30:13 is closed.
[*] Scanning 10.0.0.30:14...
[-] 10.0.0.30:14 is closed.
[*] Scanning 10.0.0.30:15...
[-] 10.0.0.30:15 is closed.
[*] Scanning 10.0.0.30:16...
[-] 10.0.0.30:16 is closed.
[*] Scanning 10.0.0.30:17...
[-] 10.0.0.30:17 is closed.
[*] Scanning 10.0.0.30:18...
[-] 10.0.0.30:18 is closed.
[*] Scanning 10.0.0.30:19...
[-] 10.0.0.30:19 is closed.
[*] Scanning 10.0.0.30:20...
[-] 10.0.0.30:20 is closed.
[*] Scanning 10.0.0.30:21...
[-] 10.0.0.30:21 is closed.
[*] Scanning 10.0.0.30:22...
[+] 10.0.0.30:22 is open.
[*] Scanning 10.0.0.30:23...
```

## Test 08

```
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -p 22
[*] No target specified. Scanning local subnet: 10.0.0.0/24

[+] Starting scan...

[+] Scanning 10.0.0.0 on ports 22-22...
[-] 10.0.0.0 is unreachable. Skipping...

[+] Scanning 10.0.0.1 on ports 22-22...
[*] Scanning 10.0.0.1:22...
[?] 10.0.0.1:22 is filtered.

[+] Scanning 10.0.0.2 on ports 22-22...
[-] 10.0.0.2 is unreachable. Skipping...

[+] Scanning 10.0.0.3 on ports 22-22...
[-] 10.0.0.3 is unreachable. Skipping...

[+] Scanning 10.0.0.4 on ports 22-22...
[-] 10.0.0.4 is unreachable. Skipping...

[+] Scanning 10.0.0.5 on ports 22-22...
[-] 10.0.0.5 is unreachable. Skipping...

[+] Scanning 10.0.0.6 on ports 22-22...
[-] 10.0.0.6 is unreachable. Skipping...

[+] Scanning 10.0.0.7 on ports 22-22...
[-] 10.0.0.7 is unreachable. Skipping...

[+] Scanning 10.0.0.8 on ports 22-22...
[-] 10.0.0.8 is unreachable. Skipping...

[+] Scanning 10.0.0.9 on ports 22-22...
[-] 10.0.0.9 is unreachable. Skipping...

[+] Scanning 10.0.0.10 on ports 22-22...
[-] 10.0.0.10 is unreachable. Skipping...

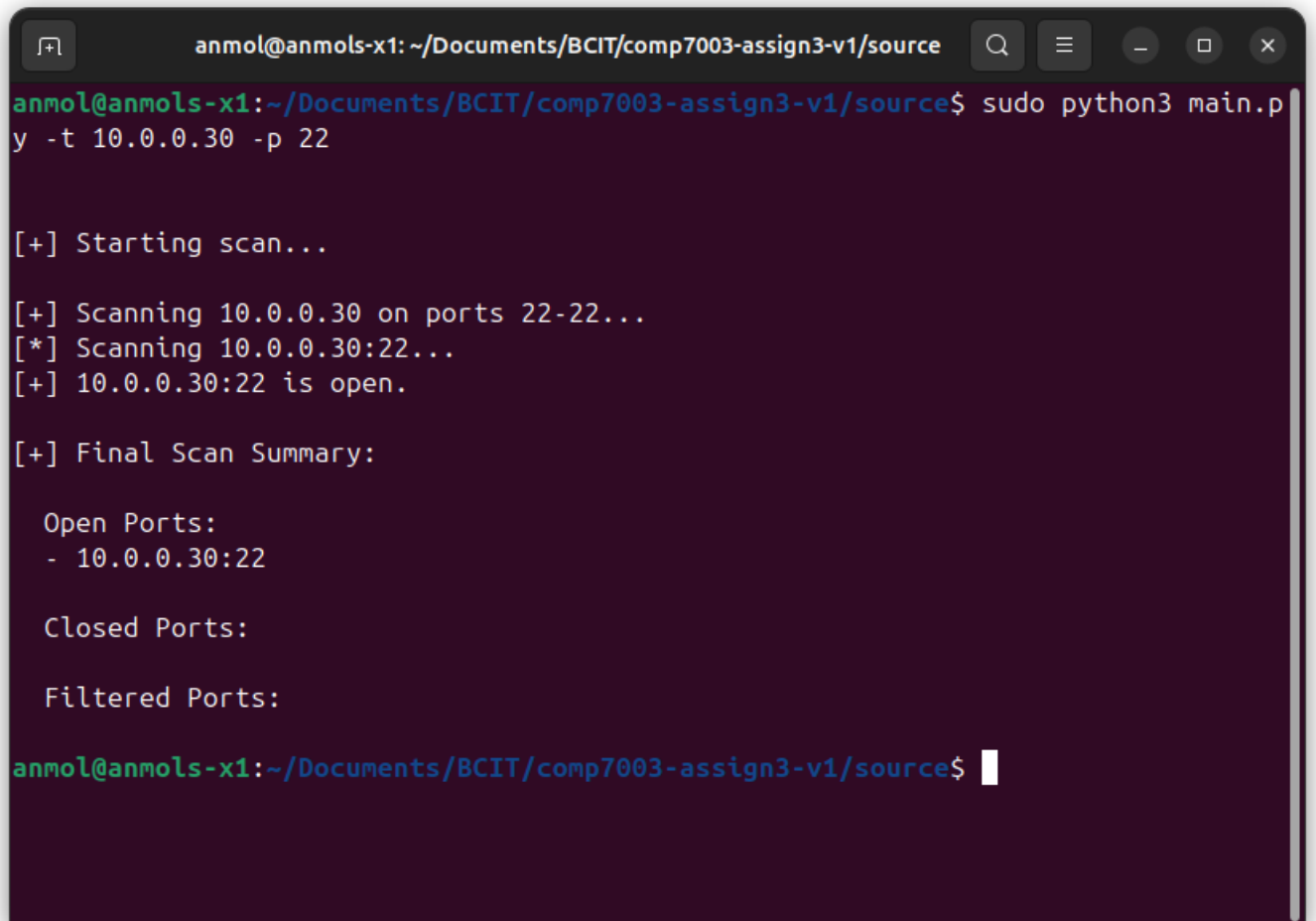
[+] Scanning 10.0.0.11 on ports 22-22...
[-] 10.0.0.11 is unreachable. Skipping...

[+] Scanning 10.0.0.12 on ports 22-22...
[-] 10.0.0.12 is unreachable. Skipping...

[+] Scanning 10.0.0.13 on ports 22-22...
[-] 10.0.0.13 is unreachable. Skipping...

[+] Scanning 10.0.0.14 on ports 22-22...
[-] 10.0.0.14 is unreachable. Skipping...
```

## Test 09



```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30 -p 22

[+] Starting scan...

[+] Scanning 10.0.0.30 on ports 22-22...
[*] Scanning 10.0.0.30:22...
[+] 10.0.0.30:22 is open.

[+] Final Scan Summary:

Open Ports:
- 10.0.0.30:22

Closed Ports:

Filtered Ports:

anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$
```

# Test 10

```
anmol@annols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@annols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.30

[+] Starting scan...

[+] Scanning 10.0.0.30 on ports 1-65535...
[*] Scanning 10.0.0.30:1...
[-] 10.0.0.30:1 is closed.
[*] Scanning 10.0.0.30:2...
[-] 10.0.0.30:2 is closed.
[*] Scanning 10.0.0.30:3...
[-] 10.0.0.30:3 is closed.
[*] Scanning 10.0.0.30:4...
[-] 10.0.0.30:4 is closed.
[*] Scanning 10.0.0.30:5...
[-] 10.0.0.30:5 is closed.
[*] Scanning 10.0.0.30:6...
[-] 10.0.0.30:6 is closed.
[*] Scanning 10.0.0.30:7...
[-] 10.0.0.30:7 is closed.
[*] Scanning 10.0.0.30:8...
[-] 10.0.0.30:8 is closed.
[*] Scanning 10.0.0.30:9...
[-] 10.0.0.30:9 is closed.
[*] Scanning 10.0.0.30:10...
[-] 10.0.0.30:10 is closed.
[*] Scanning 10.0.0.30:11...
[-] 10.0.0.30:11 is closed.
[*] Scanning 10.0.0.30:12...
[-] 10.0.0.30:12 is closed.
[*] Scanning 10.0.0.30:13...
[-] 10.0.0.30:13 is closed.
[*] Scanning 10.0.0.30:14...
[-] 10.0.0.30:14 is closed.
[*] Scanning 10.0.0.30:15...
[-] 10.0.0.30:15 is closed.
[*] Scanning 10.0.0.30:16...
[-] 10.0.0.30:16 is closed.
[*] Scanning 10.0.0.30:17...
[-] 10.0.0.30:17 is closed.
[*] Scanning 10.0.0.30:18...
[-] 10.0.0.30:18 is closed.
[*] Scanning 10.0.0.30:19...
[-] 10.0.0.30:19 is closed.
[*] Scanning 10.0.0.30:20...
[-] 10.0.0.30:20 is closed.
[*] Scanning 10.0.0.30:21...
[-] 10.0.0.30:21 is closed.
[*] Scanning 10.0.0.30:22...
[+] 10.0.0.30:22 is open.
[*] Scanning 10.0.0.30:23...
[-] 10.0.0.30:23 is closed.
```

# Test 11

```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -p 80
[*] No target specified. Scanning local subnet: 10.0.0.0/24

[+] Starting scan...

[+] Scanning 10.0.0.0 on ports 80-80...
[-] 10.0.0.0 is unreachable. Skipping...

[+] Scanning 10.0.0.1 on ports 80-80...
[*] Scanning 10.0.0.1:80...
[+] 10.0.0.1:80 is open.

[+] Scanning 10.0.0.2 on ports 80-80...
[-] 10.0.0.2 is unreachable. Skipping...

[+] Scanning 10.0.0.3 on ports 80-80...
[-] 10.0.0.3 is unreachable. Skipping...

[+] Scanning 10.0.0.4 on ports 80-80...
[-] 10.0.0.4 is unreachable. Skipping...

[+] Scanning 10.0.0.5 on ports 80-80...
[-] 10.0.0.5 is unreachable. Skipping...

[+] Scanning 10.0.0.6 on ports 80-80...
[-] 10.0.0.6 is unreachable. Skipping...

[+] Scanning 10.0.0.7 on ports 80-80...
[-] 10.0.0.7 is unreachable. Skipping...

[+] Scanning 10.0.0.8 on ports 80-80...
[-] 10.0.0.8 is unreachable. Skipping...

[+] Scanning 10.0.0.9 on ports 80-80...
[-] 10.0.0.9 is unreachable. Skipping...

[+] Scanning 10.0.0.10 on ports 80-80...
[-] 10.0.0.10 is unreachable. Skipping...

[+] Scanning 10.0.0.11 on ports 80-80...
[-] 10.0.0.11 is unreachable. Skipping...

[+] Scanning 10.0.0.12 on ports 80-80...
[-] 10.0.0.12 is unreachable. Skipping...

[+] Scanning 10.0.0.13 on ports 80-80...
[-] 10.0.0.13 is unreachable. Skipping...

[+] Scanning 10.0.0.14 on ports 80-80...
[-] 10.0.0.14 is unreachable. Skipping...
```

## Test 12

```
anmol@anmols-x1: ~/Documents/BCIT/comp7003-assign3-v1/source
anmol@anmols-x1:~/Documents/BCIT/comp7003-assign3-v1/source$ sudo python3 main.py -t 10.0.0.1-10.0.0.30 -p 22,80,443,90

[+] Starting scan...

[+] Scanning 10.0.0.1 on ports 22-443...
[*] Scanning 10.0.0.1:22...
[?] 10.0.0.1:22 is filtered.
[*] Scanning 10.0.0.1:80...
[+] 10.0.0.1:80 is open.
[*] Scanning 10.0.0.1:443...
[+] 10.0.0.1:443 is open.
[*] Scanning 10.0.0.1:90...
[-] 10.0.0.1:90 is closed.

[+] Scanning 10.0.0.2 on ports 22-443...
[-] 10.0.0.2 is unreachable. Skipping...

[+] Scanning 10.0.0.3 on ports 22-443...
[-] 10.0.0.3 is unreachable. Skipping...

[+] Scanning 10.0.0.4 on ports 22-443...
[-] 10.0.0.4 is unreachable. Skipping...

[+] Scanning 10.0.0.5 on ports 22-443...
[-] 10.0.0.5 is unreachable. Skipping...

[+] Scanning 10.0.0.6 on ports 22-443...
[-] 10.0.0.6 is unreachable. Skipping...

[+] Scanning 10.0.0.7 on ports 22-443...
[-] 10.0.0.7 is unreachable. Skipping...

[+] Scanning 10.0.0.8 on ports 22-443...
[-] 10.0.0.8 is unreachable. Skipping...

[+] Scanning 10.0.0.9 on ports 22-443...
[-] 10.0.0.9 is unreachable. Skipping...

[+] Scanning 10.0.0.10 on ports 22-443...
[-] 10.0.0.10 is unreachable. Skipping...

[+] Scanning 10.0.0.11 on ports 22-443...
[-] 10.0.0.11 is unreachable. Skipping...

[+] Scanning 10.0.0.12 on ports 22-443...
[-] 10.0.0.12 is unreachable. Skipping...

[+] Scanning 10.0.0.13 on ports 22-443...
[-] 10.0.0.13 is unreachable. Skipping...

[+] Scanning 10.0.0.14 on ports 22-443...
```