```
Stopping seed-attacker2 ... done
[02/20/24]seed@VM:~/.../Labsetup$ cd
[02/20/24]seed@VM:~$ sudo scapy -H
Wireshark Can't import matplotlib. Won't be able to plot.
INFO: Can't import PyX. Won't be able to use psdump() or pdfdump().
WARNING: IPython not available. Using standard Python shell instead.
AutoCompletion, History are disabled.
Welcome to Scapy (2.4.4)
>>> a=IP(ttl=10)
>>> a
<IP  ttl=10 |>
>>> a.src
'127.0.0.1'
>>> a.dst="192.168.1.1"
>>> a
<IP  ttl=10 dst=192.168.1.1 |>
>>> a.src
'10.0.2.15'
>>> del(a.ttl)
>>> a
<IP  dst=192.168.1.1 |>
>>> a.ttl
64
>>>
```

```
>>> IP()
<IP  |>
>>> IP()/TCP()
Wireshark rag=0 proto=tcp |<TCP  |>>
>>> Ether()/IP()/TCP()
<Ether  type=IPv4 |<IP  frag=0 proto=tcp |<TCP  |>>>
>>> IP(proto=55)/TCP()
<IP  frag=0 proto=55 |<TCP  |>>
>>> raw(IP())
b'E\x00\x00\x14\x00\x01\x00\x00@\x00|\xe7\x7f\x00\x00\x01\x7f\x00\x00\x01'
>>> IP(_)
<IP  version=4 ihl=5 tos=0x0 len=20 id=1 flags= frag=0 ttl=64 proto=hopopt chksu
m=0x7ce7 src=127.0.0.1 dst=127.0.0.1 |>
>>> a=Ether()/IP(dst="www.slashdot.org")/TCP()/"GET /index.html HTTP/1.0 \n\n"
>>> hexdump(a)
0000   52 54 00 12 35 02 08 00 27 85 9A 47 08 00 45 00   RT..5...'..G..E.
0010   00 43 00 01 00 00 40 06 E2 53 0A 00 02 0F 68 12   .C....@..S....h.
0020   24 40 00 14 00 50 00 00 00 00 00 00 00 00 50 02   $@...P........P.
0030   20 00 25 51 00 00 47 45 54 20 2F 69 6E 64 65 78    .%Q..GET /index
0040   2E 68 74 6D 6C 20 48 54 54 50 2F 31 2E 30 20 0A   .html HTTP/1.0 .
0050   0A                                                .
>>> b=raw(a)
>>> b
b"RT\x00\x125\x02\x08\x00'\x85\x9aG\x08\x00E\x00\x00C\x00\x01\x00\x00@\x06\xe2S\
```

```
>>> a= IP(dst="www.slashdot.org/30")
a
>>> a
<IP  dst=Net('www.slashdot.org/30') |>
>>> [p for p in a]
[<IP  dst=104.18.36.64 |>, <IP  dst=104.18.36.65 |>, <IP  dst=104.18.36.66 |>, <I
P  dst=104.18.36.67 |>]
>>> b=IP(ttl=[1,2(5,9)])
<console>:1: SyntaxWarning: 'int' object is not callable; perhaps you missed a co
mma?
Traceback (most recent call last):
  File "/usr/lib/python3.8/code.py", line 90, in runcode
    exec(code, self.locals)
  File "<console>", line 1, in <module>
TypeError: 'int' object is not callable
>>> b=IP(ttl=[1,2,(5,9)])
>>> b
<IP  ttl=[1, 2, (5, 9)] |>
>>> [p for p in b]
[<IP  ttl=1 |>, <IP  ttl=2 |>, <IP  ttl=5 |>, <IP  ttl=6 |>, <IP  ttl=7 |>, <IP
ttl=8 |>, <IP  ttl=9 |>]
```

```
0000   52 54 00 12 35 02 08 00 27 85 9A 47 08 00 45 00   RT..5..'..G..E.
0010   00 43 00 01 00 00 40 06 E2 53 0A 00 02 0F 68 12   .C....@..S....h.
0020   24 40 00 14 00 50 00 00 00 00 00 00 00 00 50 02   $@...P........P.
0030   20 00 25 51 00 00 47 45 54 20 2F 69 6E 64 65 78    .%Q..GET /index
0040   2E 68 74 6D 6C 20 48 54 54 50 2F 31 2E 30 20 0A   .html HTTP/1.0 .
0050   0A
>>> b=raw(a)
>>> b
x00\x125\x02\x08\x00'\x85\x9aG\x08\x00E\x00\x00C\x00\x01\x00\x00@\x06\xe2S\
n\x00\x02\x0fh\x12$@\x00\x14\x00P\x00\x00\x00\x00\x00\x00\x00\x00P\x02 \x00%Q\x0
0\x00GET /index.html HTTP/1.0 \n\n"
>>> c=Ether(b)
>>> c
<Ether  dst=52:54:00:12:35:02 src=08:00:27:85:9a:47 type=IPv4 |<IP  version=4 ih
l=5 tos=0x0 len=67 id=1 flags= frag=0 ttl=64 proto=tcp chksum=0xe253 src=10.0.2.
15 dst=104.18.36.64 |<TCP  sport=ftp_data dport=http seq=0 ack=0 dataofs=5 reser
ved=0 flags=S window=8192 chksum=0x2551 urgptr=0 |<Raw  load='GET /index.html HT
TP/1.0 \n\n' |>>>>
>>> c.hide_defaults()
>>> c
<Ether  dst=52:54:00:12:35:02 src=08:00:27:85:9a:47 type=IPv4 |<IP  ihl=5 len=67
 frag=0 proto=tcp chksum=0xe253 src=10.0.2.15 dst=104.18.36.64 |<TCP  dataofs=5
chksum=0x2551 |<Raw  load='GET /index.html HTTP/1.0 \n\n' |>>>>
>>>
```

```
  File "<console>", line 1, in <module>
TypeError: 'int' object is not callable
>>> b=IP(ttl=[1,2,(5,9)])
>>> b
<IP  ttl=[1, 2, (5, 9)] |>
>>> [p for p in b]
[<IP  ttl=1 |>, <IP  ttl=2 |>, <IP  ttl=5 |>, <IP  ttl=6 |>, <IP  ttl=7 |>, <IP
ttl=8 |>, <IP  ttl=9 |>]
>>> c=TCP(dport=[80,443])
>>> [p for p in a/c]
[<IP  frag=0 proto=tcp dst=104.18.36.64 |<TCP  dport=http |>>, <IP  frag=0 proto=
tcp dst=104.18.36.64 |<TCP  dport=https |>>, <IP  frag=0 proto=tcp dst=104.18.36.
65 |<TCP  dport=http |>>, <IP  frag=0 proto=tcp dst=104.18.36.65 |<TCP  dport=htt
ps |>>, <IP  frag=0 proto=tcp dst=104.18.36.66 |<TCP  dport=http |>>, <IP  frag=0
 proto=tcp dst=104.18.36.66 |<TCP  dport=https |>>, <IP  frag=0 proto=tcp dst=104
.18.36.67 |<TCP  dport=http |>>, <IP  frag=0 proto=tcp dst=104.18.36.67 |<TCP  dp
ort=https |>>]
>>> p = PacketList(a)
>>> a
<IP  dst=Net('www.slashdot.org/30') |>
>>> p = PacketList([p for p in a/c])
>>> p
<PacketList: TCP:8 UDP:0 ICMP:0 Other:0>
>>> █
```