root@student-vm: /media/sf_ipk/0_proj/proj2/proj

root@student-vm: /media/sf_ip...   student@student-vm: ~

root@student-vm: /media/sf_ipk/0_proj/proj2/proj 83x22

```
root@student-vm:/media/sf_ipk/0_proj/proj2/proj# ./ipk-sniffer -i enp0s3 --tcp -n 1
timestamp:              2022-03-01T19:53:24.859847Z
src MAC:                08:00:27:ca:e4:d4
dst MAC:                52:54:00:12:35:02
frame length:           74 bytes
network layer proto:    IPv4
transport layer proto:  TCP
src IP:                 10.0.2.15
dst IP:                 142.251.37.110
src port:               42338
dst port:               80
seq number (raw):       1132593855
ack number (raw):       0
flags as bits:          00000010

0x0000: 52 54 00 12 35 02 08 00  27 ca e4 d4 08 00 45 00   RT..5... '.....E.
0x0010: 00 3c fa 89 40 00 40 06  7f ba 0a 00 02 0f 8e fb   .<..@.@. ........
0x0020: 25 6e a5 62 00 50 43 82  02 bf 00 00 00 00 a0 02   %n.b.PC. ........
0x0030: fa f0 c0 a6 00 00 02 04  05 b4 04 02 08 0a 92 03   ........ ........
0x0040: ae ba 00 00 00 00 01 03  03 07                     ........ ..

root@student-vm:/media/sf_ipk/0_proj/proj2/proj# 
```

student@student-vm: ~ 65x16

```
Time   Current
                              Dload  Upload   Total   Spent
Left  Speed
   0     0    0     0     0     0      0      0  --:--:-- --:--:--100
   219   100   219     0     0   701      0  --:--:-- --:--:--
-:--    701
student@student-vm:~$ curl google.com > /dev/null
  % Total    % Received % Xferd  Average Speed   Time    Time
Time   Current
                              Dload  Upload   Total   Spent
Left  Speed
   0     0    0     0     0     0      0      0  --:--:-- --:--:-- --:--:--
   0     0    0     0     0     0      0      0  --:--:-- --:--:--100
219  100   219     0     0   739      0  --:--:-- --:--:--
   737
student@student-vm:~$ 
```

Wireshark · Packet 1 · enp0s3

```
▼ Frame 1: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interfac
    ▶ Interface id: 0 (enp0s3)
      Encapsulation type: Ethernet (1)
      Arrival Time: Mar  1, 2022 20:53:24.859847058 CET
      [Time shift for this packet: 0.000000000 seconds]
      Epoch Time: 1646164404.859847058 seconds
      [Time delta from previous captured frame: 0.000000000 seconds]
      [Time delta from previous displayed frame: 0.000000000 seconds]
      [Time since reference or first frame: 0.000000000 seconds]
      Frame Number: 1
      Frame Length: 74 bytes (592 bits)
      Capture Length: 74 bytes (592 bits)
      [Frame is marked: False]
      [Frame is ignored: False]
      [Protocols in frame: eth:ethertype:ip:tcp]
      [Coloring Rule Name: HTTP]
      [Coloring Rule String: http || tcp.port == 80 || http2]
▼ Ethernet II, Src: PcsCompu_ca:e4:d4 (08:00:27:ca:e4:d4), Dst: RealtekU_12:35:0
    ▶ Destination: RealtekU_12:35:02 (52:54:00:12:35:02)
    ▶ Source: PcsCompu_ca:e4:d4 (08:00:27:ca:e4:d4)
      Type: IPv4 (0x0800)
▼ Internet Protocol Version 4, Src: 10.0.2.15, Dst: 142.251.37.110
      0100 .... = Version: 4
      .... 0101 = Header Length: 20 bytes (5)
    ▶ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
      Total Length: 60
      Identification: 0xfa89 (64137)
    ▶ Flags: 0x4000, Don't fragment
      Fragment offset: 0
      Time to live: 64
      Protocol: TCP (6)
      Header checksum: 0x7fba [validation disabled]
      [Header checksum status: Unverified]
      Source: 10.0.2.15
      Destination: 142.251.37.110
▼ Transmission Control Protocol, Src Port: 42338, Dst Port: 80, Seq: 0, Len: 0
          Source Port: 42338
```

```
0000   52 54 00 12 35 02 08 00   27 ca e4 d4 08 00 45 00   RT··5··· '·····E·
0010   00 3c fa 89 40 00 40 06   7f ba 0a 00 02 0f 8e fb   ·<··@·@· ········
0020   25 6e a5 62 00 50 43 82   02 bf 00 00 00 00 a0 02   %n·b·PC· ········
0030   fa f0 c0 a6 00 00 02 04   05 b4 04 02 08 0a 92 03   ········ ········
0040   ae ba 00 00 00 00 01 03   03 07                     ········ ··
```

✕ Close   Help