

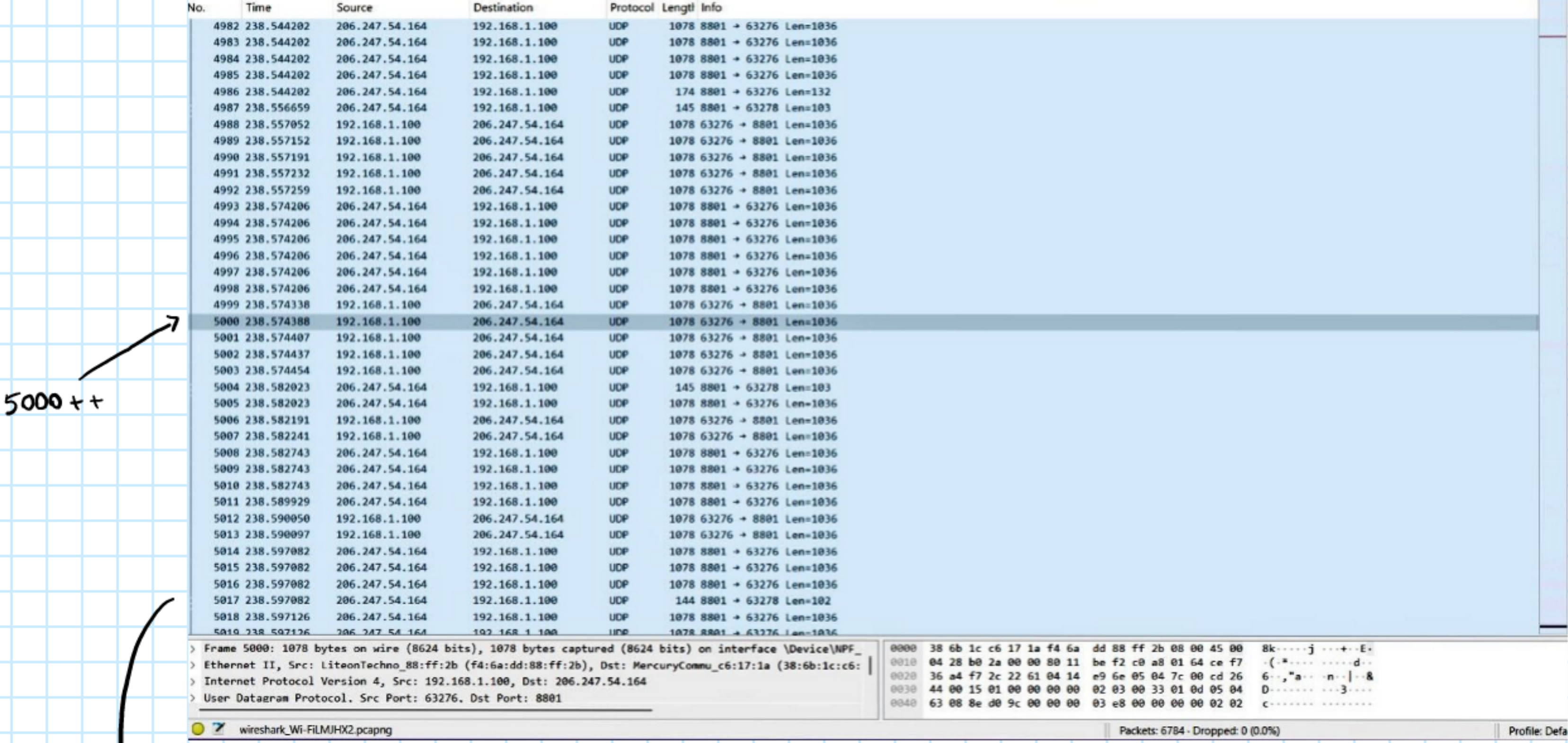
Tema 1

duminică, 17 noiembrie 2024 09:36

Bardam Elena-Bianca

gr. 2.1

1.
1. (1p) Folosiți Wireshark pentru a obține o trasă de minim 5000 linii (puteți folosi orice site doriți)



2.
2. (1p) Identificați minim 5 protocoale transmise în trasa voastră

① TCP

4607	237.955299	206.247.54.164	192.168.1.100	TCP	54 443 → 55180 [ACK] Seq=64720 Ack=86110 Win=163840 Len=0
4608	237.955441	206.247.54.164	192.168.1.100	UDP	1078 8801 → 63276 Len=1036
4609	237.955985	192.168.1.100	206.247.54.164	UDP	1078 63276 → 8801 Len=1036
4610	237.970175	206.247.54.164	192.168.1.100	UDP	1078 8801 → 63276 Len=1036
4611	237.970175	206.247.54.164	192.168.1.100	UDP	1078 8801 → 63276 Len=1036

② DNS

1139	229.263674	192.168.1.100	192.168.1.1	DNS	86 Standard query 0x9f68 AAAA zoomcalo253zc.dca.zoom.us
1140	229.263680	192.168.1.100	192.168.1.1	DNS	86 Standard query 0xa691 A zoomcalo253zc.dca.zoom.us
1141	229.263772	192.168.1.100	192.168.1.1	DNS	86 Standard query 0xd231 AAAA zoomcalo253zc.dca.zoom.us

③ ARP

5818	244.634005	LiteonTechno_88:ff:: Broadcast	ARP	42 Who has 192.168.1.100? (ARP Probe)
5920	245.645820	LiteonTechno_88:ff:: Broadcast	ARP	42 Who has 192.168.1.100? (ARP Probe)
6013	246.639254	LiteonTechno_88:ff:: Broadcast	ARP	42 Who has 192.168.1.100? (ARP Probe)
6099	247.648427	LiteonTechno_88:ff:: Broadcast	ARP	42 ARP Announcement for 192.168.1.100
6320	249.639376	LiteonTechno_88:ff:: Broadcast	ARP	42 ARP Announcement for 192.168.1.100

④ ICMPv6

5902	245.367059	fe80::db3:f473:ee30::ff02::1:6	ICMPv6	90 Multicast Listener Report Message v2
5904	245.367242	fe80::db3:f473:ee30::ff02::1:6	ICMPv6	90 Multicast Listener Report Message v2
5931	245.646090	fe80::db3:f473:ee30::ff02::1	ICMPv6	86 Neighbor Advertisement fe80::db3:f473:ee30::1:cb (ovr) is at f4:6a:dd:88:ff:2b
5932	245.646134	fe80::db3:f473:ee30::ff02::1:2	ICMPv6	70 Router Solicitation from f4:6a:dd:88:ff:2b
5933	245.646171	fe80::db3:f473:ee30::ff02::1:6	ICMPv6	90 Multicast Listener Report Message v2

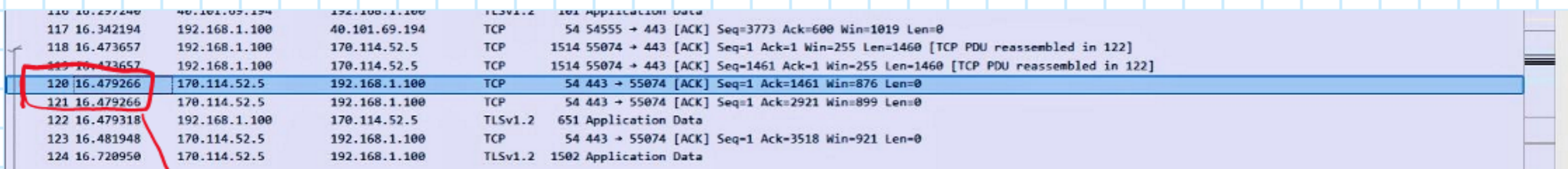
⑤ TLSv1.3

5269	239.864560	206.247.54.164	192.168.1.100	TLSv1.3	137 Application Data
5272	239.865310	206.247.54.164	192.168.1.100	TLSv1.3	161 Application Data
5274	239.886763	192.168.1.100	206.247.54.164	TLSv1.3	144 Application Data
5278	239.965552	206.247.54.164	192.168.1.100	TLSv1.3	97 Application Data
5279	239.966641	206.247.54.164	192.168.1.100	TLSv1.3	138 Application Data
5282	239.967193	206.247.54.164	192.168.1.100	TLSv1.3	912 Application Data

3.
3. (1p) Care este timpul de achiziție pentru cadrul cu numărul (numarul_de_litere_din_nume)*numarul_grupeii*numarul_subgrupeii*10

BARDAN = 6
nr. grupa = 2
nr. subgrupa = 1

$6 \cdot 2 \cdot 1 \cdot 10 = 12 \cdot 10 = 120$



time = 16.479266 s.

4.
4. (1p) Pentru cadrul cu numărul (numarul_de_litere_din_prenume)*numarul_grupeii*numarul_subgrupeii*10 Spuneți care este volumul de date captat de wireshark

Bianca = 6
nr. gr. = 2
nr. subgrupa = 1

$6 \cdot 2 \cdot 10 = 120$

117	16.342194	192.168.1.100	40.101.69.194	TCP	54 54555 → 443 [ACK] Seq=3773 Ack=1514 Win=1024 Len=0
118	16.473657	192.168.1.100	170.114.52.5	TCP	1514 55074 → 443 [ACK] Seq=1461 Ack=1514 Win=1024 Len=0
119	16.473657	192.168.1.100	170.114.52.5	TCP	1514 55074 → 443 [ACK] Seq=1461 Ack=1514 Win=1024 Len=0
120	16.479266	170.114.52.5	192.168.1.100	TCP	54 443 → 55074 [ACK] Seq=1 Ack=1514 Win=876 Len=0
121	16.479266	170.114.52.5	192.168.1.100	TCP	54 443 → 55074 [ACK] Seq=1 Ack=1514 Win=876 Len=0
122	16.479318	192.168.1.100	170.114.52.5	TLSv1.2	651 Application Data
123	16.481948	170.114.52.5	192.168.1.100	TCP	54 443 → 55074 [ACK] Seq=1 Ack=1514 Win=876 Len=0
124	16.720950	170.114.52.5	192.168.1.100	TLSv1.2	1502 Application Data
125	16.720950	170.114.52.5	192.168.1.100	TLSv1.2	1426 Application Data, Application Data

Frame 120: 54 bytes on wire (432 bits), 54 bytes captured (432 bits) on interface \Device\NPF_{234AF5...}

Section number: 1

Interface id: 0 (\Device\NPF_{234AF58F-191E-45C1-A8E8-F6035D0E500C})

Interface name: \Device\NPF_{234AF58F-191E-45C1-A8E8-F6035D0E500C}

Interface description: Wi-Fi

Encapsulation type: Ethernet (1)

Arrival Time: Nov 21, 2024 14:09:06.347579000 GTB Standard Time

UTC Arrival Time: Nov 21, 2024 12:09:06.347579000 UTC

Epoch Arrival Time: 1732190946.347579000

[Time shift for this packet: 0.000000000 seconds]

[Time delta from previous captured frame: 0.005609000 seconds]

[Time delta from previous displayed frame: 0.005609000 seconds]

[Time since reference or first frame: 16.479266000 seconds]

Frame Number: 120

Frame Length: 54 bytes (432 bits)

Capture Length: 54 bytes (432 bits)

[Frame is marked: False]

[Frame is ignored: False]

[Protocols in frame: eth:ethertype:ip:tcp]

[Coloring Rule Name: TCP]

[Coloring Rule String: tcp]

Ethernet II, Src: MercuryCommu c6:17:1a (38:6b:1c:c6:17:1a), Dst: LiteonTechno 88:ff:2b (f4:6a:dd:88:ff:2b)

→ 54 bytes

5.
- (2p) Convertiți 4b/5b prenumele vostru (cel de-al 2-lea în caz că aveți mai multe) folosindu-vă de convertorul ASCII-to-Binary din laborator.
6.
- (3p) Desenați formele de undă pentru codurile RZ, NRZ-I (Inverted) și Manchester pentru primii 10 biți rezultați de la punctul 5.

5. Bianca

01000101001001010001010011101000010100001

0100/0010/0100/1001/0100/0001/0100/1110/0100/0011/0100/0001/

01010 10100 01010 10011 01010 01001 01010 11100 01010 10101 01010 01001

primii 10 biți

6. 01010 10100

