1. a. Adresa IPv6: 2001:b30:1802:6:9c2e:8458:dd91:f6a8(Preferred)

```
Command Prompt

Ethernet adapter Ethernet 2:

   Connection-specific DNS Suffix  . : utcluj.ro
   Description . . . . . . . . . . . : Realtek PCIe GbE Family Controller
   Physical Address. . . . . . . . . : 6C-4B-90-90-73-38
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   IPv6 Address. . . . . . . . . . . : 2001:b30:1802:6:9c2e:8458:dd91:f6a8(Preferred)
```

b. Adresa MAC: 6C-4B-90-90-73-38

```
Ethernet adapter Ethernet 2:

   Connection-specific DNS Suffix  . : utcluj.ro
   Description . . . . . . . . . . . : Realtek PCIe GbE Family Controller
   Physical Address. . . . . . . . . : 6C-4B-90-90-73-38
```

c. Tipuri de interfete de retea: Ethernet adapter Ethernet 2

```
Ethernet adapter Ethernet 2:

   Connection-specific DNS Suffix  . : utcluj.ro
   Description . . . . . . . . . . . : Realtek PCIe GbE Family Controller
   Physical Address. . . . . . . . . : 6C-4B-90-90-73-38
```

d. Numarul de pachete transmise:

```
C:\Users\User>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:
Reply from 192.168.0.100: bytes=32 time=90ms TTL=64
Reply from 192.168.0.100: bytes=32 time=73ms TTL=64
Reply from 192.168.0.100: bytes=32 time=183ms TTL=64
Reply from 192.168.0.100: bytes=32 time=226ms TTL=64

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 73ms, Maximum = 226ms, Average = 143ms
```

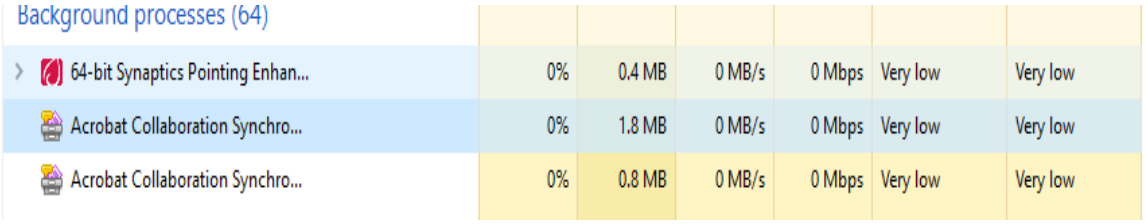
e. Exemplificari rute de conectivitate:

```
C:\Users\User>tracert google.com

Tracing route to google.com [142.250.74.206]
over a maximum of 30 hops:

  1     5 ms     2 ms     1 ms  192.168.0.1
  2    11 ms     7 ms     3 ms  gw.c5.campus.utcluj.ro [172.25.0.1]
  3     4 ms     7 ms     7 ms  obs2-campus-gw.utcluj.ro [193.226.6.225]
  4     3 ms     3 ms     3 ms  unassigned.roedu2.net [217.73.171.37]
  5    10 ms    11 ms    14 ms  37.128.233.149
  6    20 ms    12 ms    15 ms  hu-0-0-0-0.core1.nat.roedu.net [37.128.239.109]
  7    69 ms    12 ms    16 ms  te-0-6-0-0.peers1.nat.roedu.net [37.128.239.14]
  8    38 ms    39 ms    40 ms  google.interlan.ro [86.104.125.129]
  9    38 ms    49 ms    60 ms  108.170.251.129
 10    63 ms   117 ms    74 ms  142.250.234.17
 11    43 ms    47 ms    42 ms  fra24s02-in-f14.1e100.net [142.250.74.206]
```

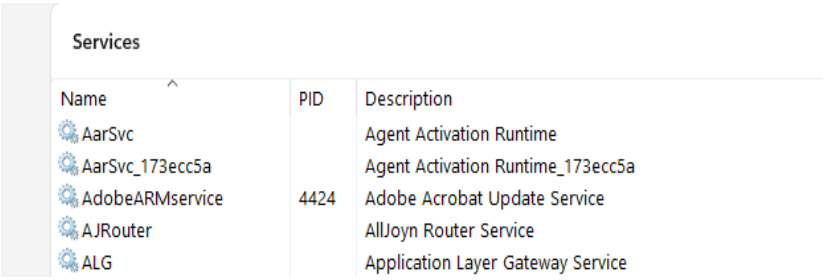
2.

a.

Processes	CPU	Memory	Disk	Network
Acrobat Collaboration Synchron	0%	1.8 MB	0 MB/s	0 Mbps
Acrobat Collaboration Synchron	0%	0.8 MB	0 MB/s	0 Mbps
64-bit Synaptics Pointing Enhancement	0%	0.4 MB	0 MB/s	0 Mbps

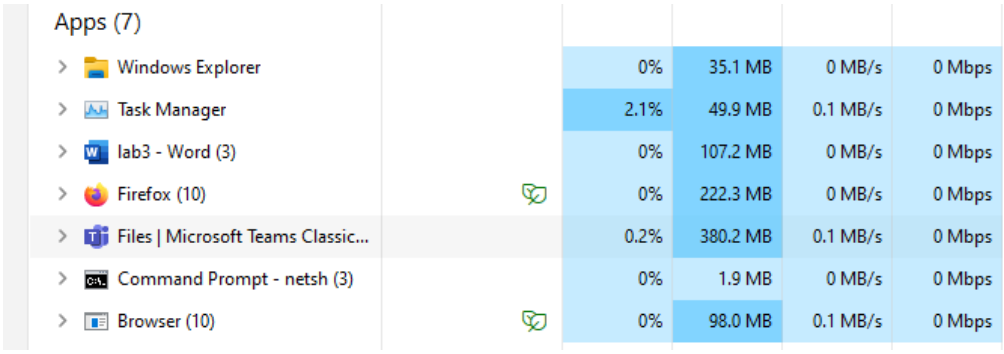


b. Adobe ARMservice
AJRouter
ALG

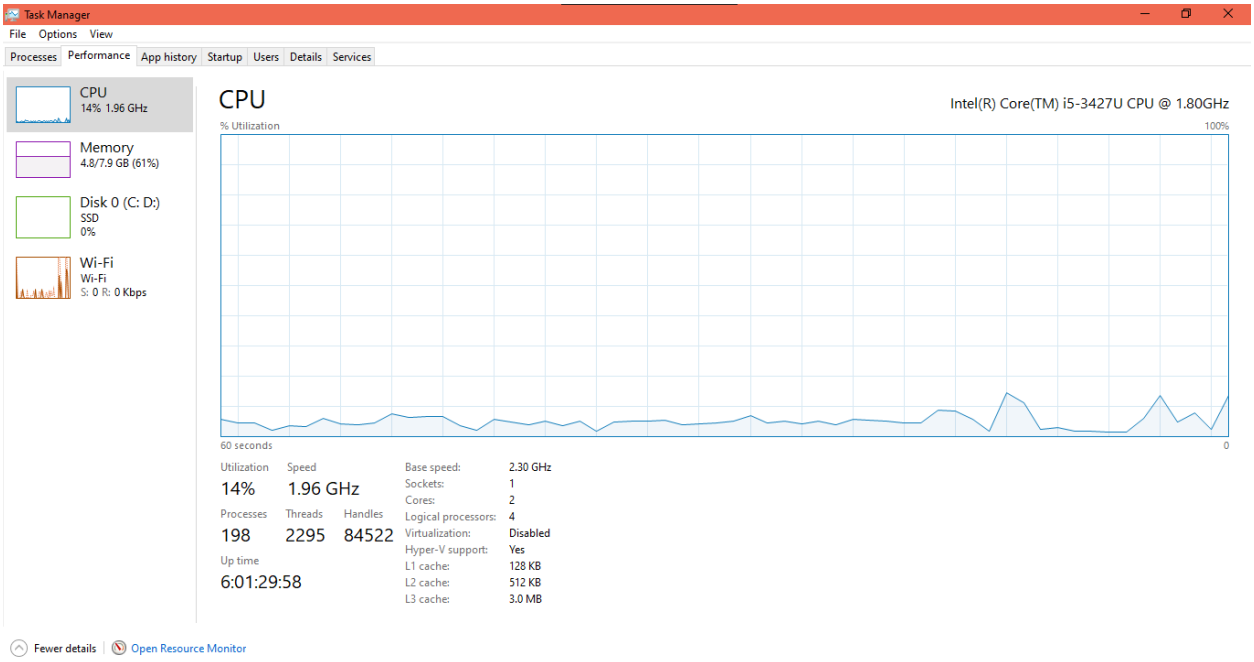


c.

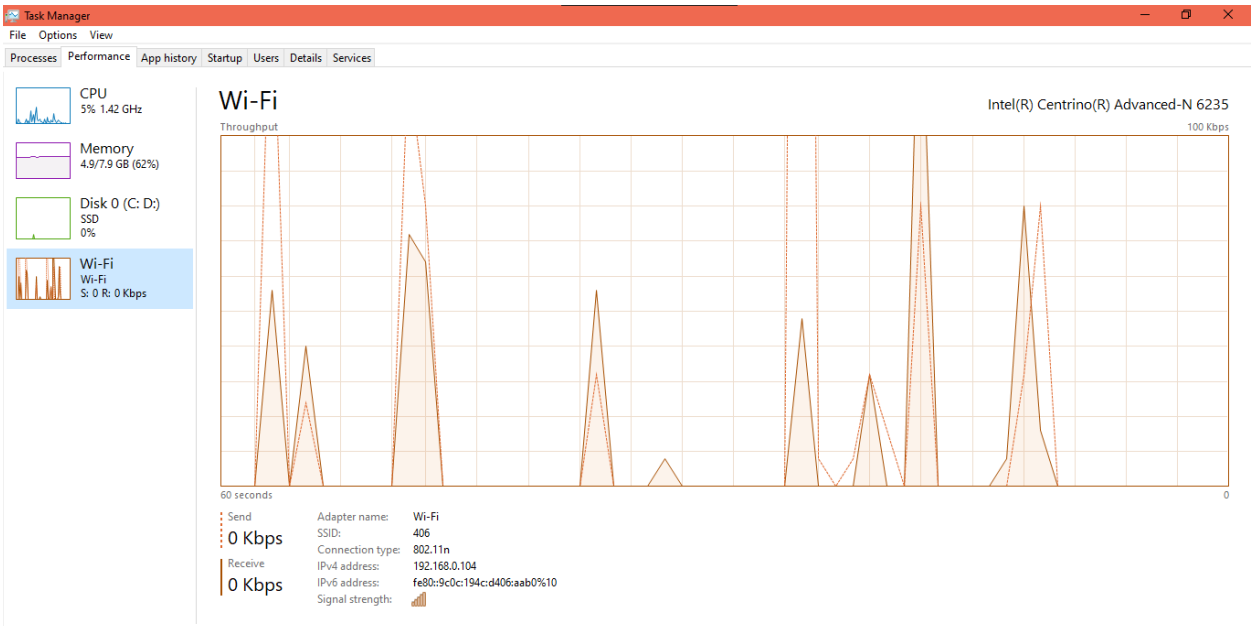
Apps	CPU	Memory	Disk	Network
Microsoft Teams	0.2%	380.2 MB	0.1 MB/s	0 Mbps
Firefox	0%	222.3 MB	0 MB/s	0 Mbps
Microsoft Word	0%	107.2 MB	0 MB/s	0 Mbps


Apps (7)
Windows Explorer 0% 35.1 MB 0 MB/s 0 Mbps
Task Manager 2.1% 49.9 MB 0.1 MB/s 0 Mbps
lab3 - Word (3) 0% 107.2 MB 0 MB/s 0 Mbps
Firefox (10) 0% 222.3 MB 0 MB/s 0 Mbps
Files | Microsoft Teams Classic... 0.2% 380.2 MB 0.1 MB/s 0 Mbps
Command Prompt - netsh (3) 0% 1.9 MB 0 MB/s 0 Mbps
Browser (10) 0% 98.0 MB 0.1 MB/s 0 Mbps

d.


Task Manager
File Options View
Processes Performance App history Startup Users Details Services
CPU 14% 1.96 GHz
Memory 4.8/7.9 GB (61%)
Disk 0 (C: D:) SSD 0%
Wi-Fi Wi-Fi S: 0 R: 0 Kbps
CPU
Intel(R) Core(TM) i5-3427U CPU @ 1.80GHz
% Utilization
100%
60 seconds
0
Utilization 14%
Speed 1.96 GHz
Processes 198
Threads 2295
Handles 84522
Up time 6:01:29:58
Base speed: 2.30 GHz
Sockets: 1
Cores: 2
Logical processors: 4
Virtualization: Disabled
Hyper-V support: Yes
L1 cache: 128 KB
L2 cache: 512 KB
L3 cache: 3.0 MB
Fewer details
Open Resource Monitor

e.



4.1.

Dimensiunea imaginii= 1600 x 1200 x 8 biti = 15360000 biti = 15 Mbiti

a. 56 kbps: 15360000:56000= 274.285714286 secunde

b. 1 Mbps: 15360000:1000000= 15,36 secunde

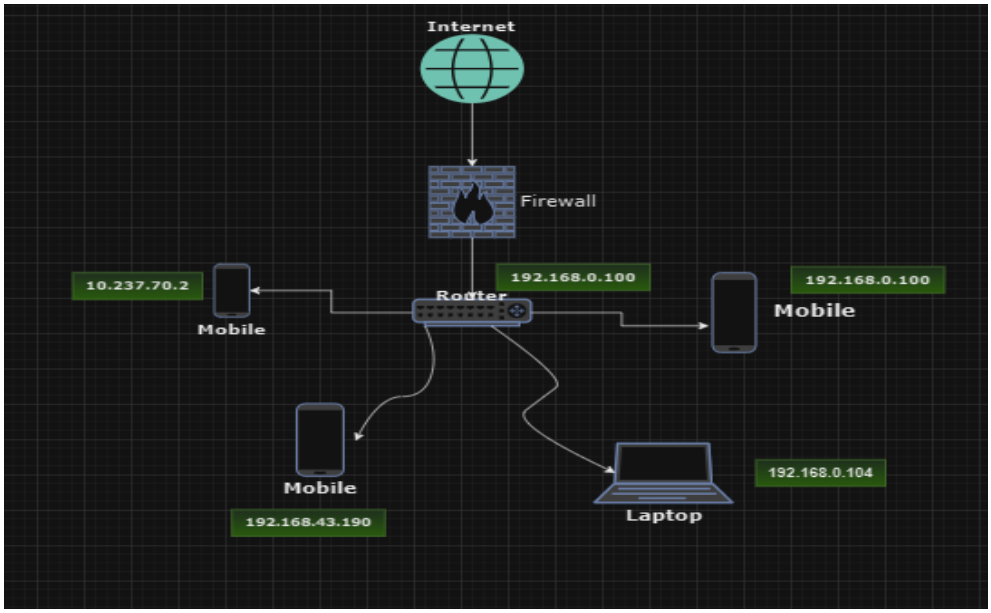
c. 10Mbps=15360000:10000000= 1,536 secunde

d. 100 Mbps=15360000:100000000= 0,1536 secunde

4.2. Numar total de topologii: 4^10= 1048576 topologii

1048576 x 0.1 = 104857.6

3.



a. Laptop - DESKTOP-4O8ST9O
   Mobil – Samsung Galaxy A32
   Mobil – Iphone 13
   Mobil – Huawei Nova 9

d. Topologie de traffic utilizata: WLAN si LAN