# mint@mint:~/Desktop/QMHKMU/tree\$ who -b

202

sda

0 8728

#### system boot 2025-03-12 11:16 mint@mint: ~/Desktop/OMHKMU/tree \_ 🗆 🔀 top - 12:46:28 up 23:55, 1 user, load average: 0.00, 0.00, 0.02 Tasks: 179 total, 1 running, 178 sleeping, 0 stopped, 0 zombie %Cpu(s): 0.3 us, 1.0 sy, 0.0 ni, 98.5 id, 0.0 wa, 0.0 hi, 0.2 si, 0.0 st MiB Mem : 3916.1 total, 295.6 free, 1166.7 used, 2900.9 buff/cache MiB Swap: 0.0 total, **0.0** free, **0.0** used. **2749.4** avail Mem PR NI VIRT RES SHR S %CPU %MEM PID USER TIME+ COMMAND 0 408452 88812 58968 S 1338 root 20 2.7 2.2 0:46.08 Xorg 1828 mint 20 0 3694112 180052 112512 S 2.3 4.5 0:50.51 cinnamon 1.1 0.1 0 549576 44268 33148 S 1.0 2251 mint 0:07.49 gnome-t+ 20 **20 0 20552 5888 3712 R** 20 0 258516 14336 12416 S **0.1 0:00.20 top** 0.4 0:03.88 touchegg 3056 mint 0.7 1127 root 0.3 1887 mint 20 0 1186824 69716 44800 S 0.3 1.7 0:04.23 nemo-de+ 20 0 0 I 0.3 0.0 0:00.65 kworker+ 3043 root 20 0 9812 S 0.0 0.3 0:06.47 systemd 1 root 22428 13652 2 root 20 0 0 0 0 S 0.0 0.0 0:00.11 kthreadd 20 0 Θ Θ 0 S 0.0 0.0 0:00.00 pool wo+ 3 root 0 -20 0 I 0.0 0.0 0:00.00 kworker+ 4 root 0 0 0 0 0 0 0 0 0 -20 0 I 0.0 0.0 0:00.00 kworker+ 5 root 0.0 0:00.00 kworker+ 0 -20 0 I 0.0 6 root 0.0 0:00.00 kworker+ 0 I 0 -20 0.0 7 root 0:00.00 kworker+ 0 I 10 root 0 -20 0.0 11 root 20 0 0 I 0.0 0.0 0:00.18 kworker+ 0.0 0:00.00 kworker+ 0.0 12 root 0 -20 Θ Θ Θ I mint@mint:~/Desktop/QMHKMU/tree\$ vmstat -a -d disk- -----reads-----IO-----ms cur sec 52831 0 0 loop0 91344 0 1144080 Θ Θ 0 52 0 0 Θ 0 0 Θ Θ Θ 0 0 loop1 Θ loop2 0 Θ 0 0 0 0 Θ Θ 9 9 0 0 0 0 0 0 0 Θ loop3 0 0 0 0 0 0 0 Θ 0 0 0 loop4 Θ Θ Θ 0 0 0 0 loop5 Θ Θ θ 0 0 loop6 Θ Θ 0 0 Θ Θ 0 Θ Θ loop7 sr0 30091 364 5880636 78970 0 0 0 0 Θ 80

mint@mint:~/Desktop/OMHKMU/tree\$ LOGIN@ IDLE Mon12 23:57m JCPU PCPU WHAT TTY FROM 23:57m 0.00s 0.04s lightdm --sessi mint mint@mint:~/Desktop/QMHKMU/tree\$

0

0

Θ

0

0

122

# Operációs Rendszerek

4. Gyakorlat 2025. 03. 12.

#### Készítette:

Jakab Tibor Bsc

Szak: Programtervező Informatikus

**QMHKMU** 

Sárospatak, 2025

#### 1. feladat

### Linux parancsok kombinálása

```
mint@mint: ~/Desktop/QMHKMU_0312
                                                                           pasn: cu: /nome/mint/uesktop: No such lite of ulfectory
mint@mint:~$ cd /home/mint/Desktop/
mint@mint:~/Desktop$ mkdir QMHKMU 0312
mint@mint:~/Desktop$ cd QMHKMU 0312
mint@mint:~/Desktop/QMHKMU 0312$ ls lecke6
ls: cannot access 'lecke6': No such file or directory
mint@mint:~/Desktop/QMHKMU 0312$ touch lecke6.txt
mint@mint:~/Desktop/QMHKMU_0312$ ls lecke6
ls: cannot access 'lecke6': No such file or directory
mint@mint:~/Desktop/QMHKMU_0312$ ls lecke6.exe
ls: cannot access 'lecke6.exe': No such file or directory
mint@mint:~/Desktop/QMHKMU 0312$ mkdir sajat && rmdir sajat
mint@mint:~/Desktop/QMHKMU 0312$ mkdit tmp
Command 'mkdit' not found, did you mean:
  command 'mkdic' from deb canna-utils (3.7p3-20)
  command 'mkdir' from deb coreutils (9.4-2ubuntu2)
  command 'mkdist' from deb libmodule-package-rdf-perl (0.014-2)
Try: sudo apt install <deb name>
mint@mint:~/Desktop/QMHKMU 0312$ mkdir tmp
mint@mint:~/Desktop/QMHKMU_0312$ cd tmp || echo "Error"
mint@mint:~/Desktop/QMHKMU_0312/tmp$ cd
mint@mint:~$ cd /Desktop/QMHKMU 0312
bash: cd: /Desktop/QMHKMU 0312: No such file or directory
mint@mint:~$ cd ~/Desktop/QMHKMU 0312
mint@mint:~/Desktop/QMHKMU_03136_mkdir_dir_1 && cd_dir_1
mint@mint:~/Desktop/QMHKMU 0312/dir 1$ cd ~/Desktop/QMHKMU 0312
mint@mint:~/Desktop/QMHKMU_0312$ cd dir 2 && pwd || mkdir dir 2
bash: cd: dir 2: No such file or directory
mint@mint:~/Desktop/QMHKMU 0312$ cd dir 2 && pwd || mkdir dir 2
/home/mint/Desktop/QMHKMU 0312/dir 2
mint@mint:~/Desktop/QMHKMU_0312/dir_2$ cd ~/Desktop/QMHKMU_0312
mint@mint:~/Desktop/QMHKMU_0312$ pwd
/home/mint/Desktop/QMHKMU 0312
mint@mint:~/Desktop/QMHKMU_0312$ cd pwd
bash: cd: pwd: No such file or directory
mint@mint:~/Desktop/QMHKMU 0312$ cd dir 3 || mkdir dir 3 && cd dir 3
bash: cd: dir 3: No such file or directory
mint@mint:~/Desktop/QMHKMU 0312/dir 3$ cd ~/Desktop/QMHKMU 0312
mint@mint:~/Desktop/QMHKMU 0312$ touch xyz.txt && echo "Jakab Tibor" > xyz.txt
mint@mint:~/Desktop/QMHKMU 0312$ touch www.txt; echo "Jakab Tibor, QMHKMU > www.
txt; cat www.txt > xzy.txt; cat www.txt
> touch www.txt; echo "Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat
www.txt
Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat www.txt
touch www.txt; echo Jakab Tibor, QMHKMU
mint@mint:~/Desktop/QMHKMU 0312$ touch www.txt; echo "Jakab Tibor, QMHKMU > www.
txt: cat www.txt > xzv.txt: cat www.txt
```

```
bash: cd: dir 3: No such file or directory
mint@mint:~/Desktop/QMHKMU_0312/dir_3$ cd ~/Desktop/QMHKMU 0312
mint@mint:~/Desktop/QMHKMU_0312$ touch xyz.txt && echo "Jakab Tibor" > xyz.txt
mint@mint:~/Desktop/QMHKMU_0312$ touch www.txt; echo "Jakab Tibor, QMHKMU > www.
txt; cat www.txt > xzy.txt; cat www.txt
> touch www.txt; echo "Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat
www.txt
Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat www.txt
touch www.txt; echo Jakab Tibor, QMHKMU
mint@mint:~/Desktop/QMHKMU_0312$ touch www.txt; echo "Jakab Tibor, QMHKMU > www.
txt; cat www.txt > xzy.txt; cat www.txt
touch www.txt; echo "Jakab Tibor, QMHKMU" > www.txt; cat www.txt > xzy.txt; cat
www.txt
> touch www.txt; echo "Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat
www.txt
touch www.txt; echo "Jakab Tibor, QMHKMU" > www.txt; cat www.txt > xzy.txt; cat
Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat www.txt
touch www.txt; echo Jakab Tibor, QMHKMU > www.txt; cat www.txt > xzy.txt; cat ww
w.txt
touch www.txt; echo Jakab Tibor, QMHKMU
Jakab Tibor, QMHKMU
mint@mint:~/Desktop/QMHKMU_0312$ top
```

# 2. Feladat

| USER   | TTY   | FF     | ROM     | L     | OGIN@ | IDLE   | JCPU    | PCPU W  | HAT    | ı     |  |  |
|--|-------|--------|---------|-------|-------|--------|---------|---------|--------|-------|--|--|
| mint   |       |        |         |       | lon12 | 23:57m | 0.00s   | 0.04s l | ightdm | sessi |  |  |
| mint@mint:~/Desktop/QMHKMU/tree\$              |       |        |         |       |       |        |         |         |        |       |  |  |
| mint@mint:~/Desktop/QMHKMU/tree\$ vmstat -a -d |       |        |         |       |       |        |         |         |        |       |  |  |
| diskreadsIO                                    |       |        |         |       |       |        |         |         |        |       |  |  |
|  | total | merged | sectors | ms    | total | merged | sectors | ms      | cur    | sec   |  |  |
| loop0  | 91344 | Θ      | 1144080 | 52831 | 0     | 0      | 0       | 0       | 0      | 52    |  |  |
| loop1  | 0     | Θ      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop2  | 0     | Θ      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop3  | 0     | 0      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop4  | 0     | Θ      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop5  | 0     | 0      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop6  | 0     | Θ      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| loop7  | 0     | Θ      | 0       | 0     | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| sr0  | 30091 | 364    | 5880636 | 78970 | 0     | 0      | 0       | 0       | 0      | 80    |  |  |
| sda  | 202   | Θ      | 8728    | 122   | 0     | 0      | 0       | 0       | 0      | Θ     |  |  |
| mint@mint:~/Desktop/OMHKMU/tree\$              |       |        |         |       |       |        |         |         |        |       |  |  |

| mint@mint: ~/Desktop/QMHKMU/tree                                |               |               |       |          |                  |       |     |        |      | - 🗆 😮             |          |
|---|---------------|---------------|-------|----------|------------------|-------|-----|--------|------|-------------------|----------|
| top - 12:46:28 up 23:55, 1 user, load average: 0.00, 0.00, 0.02 |               |               |       |          |                  |       |     |        |      |                   |          |
| Tasks: 179 total, 1 running, 178 sleeping, 0 stopped, 0 zombie  |               |               |       |          |                  |       |     |        |      |                   |          |
| %Cpu(s):  |               |               |       |          |                  |       |     |        |      | , <b>0.2</b> si,  |          |
| MiB Mem   |               |               |       |          |                  |       |     |        |      | <b>9.9</b> buff/0 |          |
| MiB Swap  | ο: <b>θ</b> . | . <b>0</b> to | otal, | , θ.     | . <b>0</b> free, | , (   | 9.0 | used.  | 274  | 9.4 avail         | Mem      |
|   |               |               |       |          | 255              | CI ID |     | 0.0011 |      |                   | COLUMNIS |
|   | USER          | PR            | NI    | VIRT     | RES              | SHR   |     | %CPU   | %MEM |                   | COMMAND  |
|   | root          | 20            | 0     | 408452   | 88812            | 58968 |     | 2.7    | 2.2  | 0:46.08           | -        |
|   | mint          | 20            |       | 3694112  |                  |       |     | 2.3    | 4.5  |                   | cinnamon |
| 2251  |               | 20            | 0     | 549576   | 44268            | 33148 |     | 1.0    | 1.1  |                   | gnome-t+ |
| 3056  |               | 20            | Θ     | 20552    | 5888             | 3712  |     | 0.7    | 0.1  | 0:00.20           |          |
| 1127  | root          | 20            | 0     | 258516   | 14336            | 12416 | S   | 0.3    | 0.4  |                   | touchegg |
| 1887  |               | 20            | 0     | 1186824  | 69716            | 44800 | S   | 0.3    | 1.7  | 0:04.23           | nemo-de+ |
| 3043  | root          | 20            | 0     | 0        | 0                | 0     | Ι   | 0.3    | 0.0  |                   | kworker+ |
| 1   | root          | 20            | 0     | 22428    | 13652            | 9812  | S   | 0.0    | 0.3  | 0:06.47           | systemd  |
| 2   | root          | 20            | 0     | 0        | 0                | 0     | S   | 0.0    | 0.0  | 0:00.11           | kthreadd |
| 3   | root          | 20            | 0     | 0        | 0                | 0     | S   | 0.0    | 0.0  | 0:00.00           | pool_wo+ |
| 4   | root          | 0             | -20   | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| 5   | root          | 0             | -20   | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| 6   | root          | 0             | -20   | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| 7   | root          | 0             | -20   | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| 10  | root          | 0             | -20   | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| 11  | root          | 20            | 0     | 0        | 0                | 0     | Ι   | 0.0    | 0.0  | 0:00.18           | kworker+ |
|   | root          |               | -20   | 0        | 0                |       | I   | 0.0    | 0.0  | 0:00.00           | kworker+ |
| <pre>mint@mint:~/Desktop/QMHKMU/tree\$ who -b</pre>             |               |               |       |          |                  |       |     |        |      |                   |          |
|   | system        | boot          | 20    | 25-03-12 | 11:16            |       |     |        |      |                   |          |