LIN: Fdisk partycjonowanie

Wylistowanie dostępnych dysków:

```
kacper@dell:~$ sudo fdisk -l

Disk /dev/sdb: 28,88 GiB, 31004295168 bytes, 60555264 sectors
Disk model: USB DISK 3.0
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x45e29cc2
kacper@dell:~$
```

Wybieramy dysk który chcemy sformatować `/dev/sdb`

```
kacper@dell:~$ sudo fdisk /dev/sdb

Welcome to fdisk (util-linux 2.39.3).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help): m

Help:

  DOS (MBR)
   a   toggle a bootable flag
   b   edit nested BSD disklabel
   c   toggle the dos compatibility flag

  Generic
   d   delete a partition
   F   list free unpartitioned space
   l   list known partition types
   n   add a new partition
   p   print the partition table
   t   change a partition type
   v   verify the partition table
   i   print information about a partition

  Misc
   m   print this menu
   u   change display/entry units
   x   extra functionality (experts only)

  Script
```

```
   I   load disk layout from sfdisk script file
   O   dump disk layout to sfdisk script file

  Save & Exit
   w   write table to disk and exit
   q   quit without saving changes

  Create a new label
   g   create a new empty GPT partition table
   G   create a new empty SGI (IRIX) partition table
   o   create a new empty MBR (DOS) partition table
   s   create a new empty Sun partition table

Command (m for help): g

Created a new GPT disklabel (GUID: 812597D3-03AF-4EAE-878A-5895036EDE60).
The device contains 'dos' signature and it will be removed by a write
command. See fdisk(8) man page and --wipe option for more details.

Command (m for help): n
Partition number (1-128, default 1):
First sector (2048-60555230, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-60555230, default
60553215): +12G

Created a new partition 1 of type 'Linux filesystem' and of size 12 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

kacper@dell:~$
```

Nadawanie systemu plików

```
kacper@dell:~$ sudo mkfs.ext4 /dev/sdb1
mke2fs 1.47.0 (5-Feb-2023)
Creating filesystem with 3145728 4k blocks and 786432 inodes
Filesystem UUID: a50e3ba3-e594-4a46-a147-82d235c6b2f6
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

kacper@dell:~$
```

Montowanie dysku:

```
kacper@dell:~$ mkdir disk
kacper@dell:~$ sudo mount /dev/sdb1 ./disk/
kacper@dell:~$ lsblk
NAME                              MAJ:MIN RM   SIZE RO TYPE  MOUNTPOINTS
sdb                                 8:16   1  28,9G  0 disk
└─sdb1                              8:17   1    12G  0 part
/home/kacper/disk
kacper@dell:~$
```

Jeżeli checmy żeby dysk był montowany razem z uruchomieniem systemu operacyjnego to wpisujemy go do pliku fstab.

```
kacper@dell:~$ sudo nano /etc/fstab

# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point>   <type>  <options>       <dump>  <pass>
# / was on /dev/nvme0n1p2 during installation
UUID=db7ddba8-c421-47d7-a760-eb7f39ee1cee /               ext4
errors=remount-ro 0       1
# /boot/efi was on /dev/nvme0n1p1 during installation
UUID=361E-C212  /boot/efi       vfat    umask=0077      0       1
/swapfile                                 none            swap    sw
0       0

/dev/sdb1   /home/kacper/disk    ext4    auto,user,exec,rw,async,atime    0
0
```

Żeby przetestować wpis fstab można wykonać polecenie `sudo mount -a`