Wydzial Informatyki Politechniki Bialostockiej Administracja systemami GNU/Linux	Data: 28.03.2022
Cwiczenie nr 4 Temat: disk layout Kasper Seweryn	Prowadzacy: dr inz. Andrzej Chmielewski

1. Za pomocą polecenia fdisk wyświetl informacje o aktualnym podziale na partycje. UWAGA: potrzebne uprawnienia administratora.

```
λ ~/ sudo fdisk -l
Disk /dev/nvme0n1: 931.51 GiB, 1000204886016 bytes, 1953525168 sectors
Disk model: Samsung SSD 970 EVO 1TB
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: gpt
Disk identifier: A7F3E1CA-4BD7-45A8-97F0-43CA60232F13

Device           Start        End    Sectors  Size Type
/dev/nvme0n1p1    2048    1050623    1048576  512M EFI System
/dev/nvme0n1p2 1050624 1953523711 1952473088  931G Linux filesystem


Disk /dev/mapper/luksdev: 931 GiB, 999649443840 bytes, 1952440320 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop0: 27.94 GiB, 30000000000 bytes, 58593750 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
λ ~/
```

2. Podaj punkty montowania dla wszystkich partycji. Informacje uzyskaj za pomocą poleceń mount oraz df.

```
λ ~/ mount
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
sys on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
dev on /dev type devtmpfs (rw,nosuid,relatime,size=8048048k,nr_inodes=2012012,mode=755,inode64)
run on /run type tmpfs (rw,nosuid,nodev,relatime,mode=755,inode64)
efivarfs on /sys/firmware/efi/efivars type efivarfs (rw,nosuid,nodev,noexec,relatime)
/dev/mapper/luksdev on / type xfs (rw,relatime,attr2,inode64,logbufs=8,logbsize=32k,noquota)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=30,pgrp=1,timeout=0,minproto=5,maxproto=5
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime,pagesize=2M)
mqueue on /dev/mqueue type mqueue (rw,nosuid,nodev,noexec,relatime)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime)
tracefs on /sys/kernel/tracing type tracefs (rw,nosuid,nodev,noexec,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
ramfs on /run/credentials/systemd-sysusers.service type ramfs (ro,nosuid,nodev,noexec,relatime,mode=700)
tmpfs on /tmp type tmpfs (rw,noatime,inode64)
/dev/nvme0n1p1 on /boot type vfat (rw,relatime,fmask=0022,dmask=0022,codepage=437,iocharset=ascii,shortname
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,nosuid,nodev,noexec,relatime)
lxcfs on /var/lib/lxcfs type fuse.lxcfs (rw,nosuid,nodev,relatime,user_id=0,group_id=0,allow_other)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,size=1617300k,nr_inodes=404325,mode=700,uid=10
jetbrains-toolbox on /tmp/.mount_jetbraxsga3n type fuse.jetbrains-toolbox (ro,nosuid,nodev,relatime,user_id
tmpfs on /var/lib/lxd/shmounts type tmpfs (rw,relatime,size=100k,mode=711,inode64)
tmpfs on /var/lib/lxd/devlxd type tmpfs (rw,relatime,size=100k,mode=755,inode64)
/var/lib/lxd/disks/default_pool.img on /var/lib/lxd/storage-pools/default_pool type btrfs (rw,relatime,ssd,
jetbrains-toolbox on /tmp/.mount_jetbraLJU9a3 type fuse.jetbrains-toolbox (ro,nosuid,nodev,relatime,user_id
overlay on /var/lib/docker/overlay2/ff2aa3f6c1915b26aff2779241ba38511edaa75a9fc446c3f28c37bb572015d5/merged
WTN5DW2QU5VD76TDGWVH:/var/lib/docker/overlay2/l/LQRIF653I2OCPLPVSOJMIFML6C:/var/lib/docker/overlay2/l/WCJE3
XQB4LT:/var/lib/docker/overlay2/l/X5YHLUX4INUUEVFIVDCCUQWJME:/var/lib/docker/overlay2/l/V7TX3GFBO3LS5JM6HSG
r/lib/docker/overlay2/ff2aa3f6c1915b26aff2779241ba38511edaa75a9fc446c3f28c37bb572015d5/work,index=off)
nsfs on /run/docker/netns/906282bb02c0 type nsfs (rw)
```

```
λ ~/ df
df: /tmp/.mount_jetbraxsga3n: Transport endpoint is not connected
Filesystem          1K-blocks      Used Available Use% Mounted on
dev                   8048048         0   8048048   0% /dev
run                   8086508      1856   8084652   1% /run
/dev/mapper/luksdev 975743492 325446868 650296624  34% /
tmpfs                 8086508    109224   7977284   2% /dev/shm
tmpfs                 8086508     78596   8007912   1% /tmp
/dev/nvme0n1p1         523248    332140    191108  64% /boot
tmpfs                 1617300        68   1617232   1% /run/user/1000
tmpfs                     100         0       100   0% /var/lib/lxd/shmounts
tmpfs                     100         0       100   0% /var/lib/lxd/devlxd
/dev/loop0          29296872   4121312  24858880  15% /var/lib/lxd/storage-pools/default_pool
λ ~/
```

3. Sprawdź jakie partycje swap są używane w systemie oraz zweryfikuj, czy jest ich wystarczająca ilość oraz wielkość.

```
λ ~/ free -h
               total        used        free      shared  buff/cache   available
Mem:            15Gi       7.0Gi       2.0Gi       1.8Gi       6.4Gi       6.3Gi
Swap:           39Gi          0B        39Gi
λ ~/ cat /proc/swaps
Filename                                Type            Size            Used            Priority
/swapfile                               file            8388604         0               100
/swapfile2                              file            33554428        0               100
λ ~/
```

Partycji swap nie ma ani jednej, za to sa dwa swapfile. Jeden 8GB i jeden 32GB. Sprawuja sie bardzo dobrze tym bardziej, ze sa na NVME.