1. создать виртуальный диск

```
taiiiga@raw:~$ df
Filesystem     1K-blocks    Used Available Use% Mounted on
tmpfs             203144    1368    201776   1% /run
/dev/sda3        9735476 6503356   2717868  71% /
tmpfs            1015712       0   1015712   0% /dev/shm
tmpfs               5120       4      5116   1% /run/lock
tmpfs               4096       0      4096   0% /sys/fs/cgroup
/dev/sda2         524272    7988    516284   2% /boot/efi
tmpfs             203140     108    203032   1% /run/user/1000
/dev/loop10      1983056    6000   1858272   1% /mnt/virtualdisk
```

2. на диске создать 8 разделов размером 189 Мбайт используя MBR запись

```
Disk /dev/loop10: 1,95 GiB, 2097152000 bytes, 4096000 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
Disklabel type: dos
Disk identifier: 0x4904be93

Device         Boot     Start      End Sectors  Size Id Type
/dev/loop10p1            2048  4095999 4093952    2G  5 Extended
/dev/loop10p5            4096   391167  387072  189M 83 Linux
/dev/loop10p6          393216   780287  387072  189M 83 Linux
/dev/loop10p7          782336  1169407  387072  189M 83 Linux
/dev/loop10p8         1171456 1558527  387072  189M 83 Linux
/dev/loop10p9         1560576 1947647  387072  189M 83 Linux
/dev/loop10p10        1949696 2336767  387072  189M 83 Linux
/dev/loop10p11        2338816 2725887  387072  189M 83 Linux
/dev/loop10p12        2727936 3115007  387072  189M 83 Linux
```

3. на одном из разделов создать файловую систему NTFS (размер блока 4096 байт)

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.ntfs -s 4096 /dev/loop10p5
The partition start sector was not specified for /dev/loop10p5 and it could not be obtained automatically.  It has been set to 0.
The number of sectors per track was not specified for /dev/loop10p5 and it could not be obtained automatically.  It has been set to 0.
The number of heads was not specified for /dev/loop10p5 and it could not be obtained automatically.  It has been set to 0.
Cluster size has been automatically set to 4096 bytes.
To boot from a device, Windows needs the 'partition start sector', the 'sectors per track' and the 'number of heads' to be set.
Windows will not be able to boot from this device.
Initializing device with zeroes: 100% - Done.
Creating NTFS volume structures.
mkntfs completed successfully. Have a nice day.
```

```
taiiiga@raw:/mnt/virtualdisk$ sudo lsblk -f
NAME        FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0       squashfs 4.0                                                    0   100% /snap/core18/1988
loop1       squashfs 4.0                                                    0   100% /snap/core18/1885
loop2       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5       squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6       squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7       squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9       squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5  ntfs               4F029D672A8E6A0C
├─loop10p6
├─loop10p7
├─loop10p8
├─loop10p9
├─loop10p10
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2      vfat     FAT32     CD57-8907                              504,2M     2% /boot/efi
└─sda3      ext4     1.0       5d168e49-e2d2-4f75-8196-4fdbac6470ef      2,3G    70% /
sr0
```

4. на одном из разделов создать файловую систему FAT32

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.fat -F32 /dev/loop10p6
mkfs.fat 4.1 (2017-01-24)
taiiiga@raw:/mnt/virtualdisk$ sudo lsblk -f
NAME        FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0       squashfs 4.0                                                    0   100% /snap/core18/1988
loop1       squashfs 4.0                                                    0   100% /snap/core18/1885
loop2       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5       squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6       squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7       squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9       squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5  ntfs               4F029D672A8E6A0C
├─loop10p6  vfat     FAT32     0C81-8E76
├─loop10p7
├─loop10p8
├─loop10p9
├─loop10p10
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2      vfat     FAT32     CD57-8907                              504,2M     2% /boot/efi
└─sda3      ext4     1.0       5d168e49-e2d2-4f75-8196-4fdbac6470ef      2,3G    70% /
sr0
```

5. на одном из разделов создать файловую систему EXT2 (размер блока
4096 байт)

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.ext2 -s 4096 /dev/loop10p7
mke2fs 1.45.6 (20-Mar-2020)
Discarding device blocks: done
Creating filesystem with 48384 4k blocks and 48384 inodes
Filesystem UUID: 7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
Superblock backups stored on blocks:
        32768

Allocating group tables: done
Writing inode tables: done
Writing superblocks and filesystem accounting information: done
```

```
taiiiga@raw:/mnt/virtualdisk$ sudo lsblk -f
NAME        FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0       squashfs 4.0                                                    0   100% /snap/core18/1988
loop1       squashfs 4.0                                                    0   100% /snap/core18/1885
loop2       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5       squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6       squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7       squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9       squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5  ntfs           4F029D672A8E6A0C
├─loop10p6  vfat     FAT32 0C81-8E76
├─loop10p7  ext2     1.0   7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
├─loop10p8
├─loop10p9
├─loop10p10
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2      vfat     FAT32 CD57-8907                            504,2M     2% /boot/efi
└─sda3      ext4     1.0   5d168e49-e2d2-4f75-8196-4fdbac6470ef   2,3G    70% /
sr0
```

6. на одном из разделов создать файловую систему EXT3, включить журналирование данных, не только метаданных (размер блока 4096 байт)

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.ext3 -s 4096 /dev/loop10p8
mke2fs 1.45.6 (20-Mar-2020)
Discarding device blocks: done
Creating filesystem with 48384 4k blocks and 48384 inodes
Filesystem UUID: d7894374-9844-4cf3-88ad-af730e6f44fb
Superblock backups stored on blocks:
        32768

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME        FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0       squashfs 4.0                                                    0   100% /snap/core18/1988
loop1       squashfs 4.0                                                    0   100% /snap/core18/1885
loop2       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3       squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5       squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6       squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7       squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8       squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9       squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5  ntfs           4F029D672A8E6A0C
├─loop10p6  vfat     FAT32 0C81-8E76
├─loop10p7  ext2     1.0   7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
├─loop10p8  ext3     1.0   d7894374-9844-4cf3-88ad-af730e6f44fb
├─loop10p9
├─loop10p10
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2      vfat     FAT32 CD57-8907                            504,2M     2% /boot/efi
└─sda3      ext4     1.0   5d168e49-e2d2-4f75-8196-4fdbac6470ef   2,3G    70% /
sr0
```

```
taiiiga@raw:/mnt/virtualdisk$ sudo tune2fs -O has_journal -o journal_data /dev/loop10p8
tune2fs 1.45.6 (20-Mar-2020)
taiiiga@raw:/mnt/virtualdisk$ sudo tune2fs -l /dev/loop10p8 | grep features
Filesystem features:      has_journal ext_attr resize_inode dir_index filetype sparse_super large_file
```

7. на одном из разделов создать файловую систему EXT4, включить журналирование данных, не только метаданных (размер блока 4096 байт)

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.ext4 -s 4096 /dev/loop10p9
mke2fs 1.45.6 (20-Mar-2020)
Discarding device blocks: done
Creating filesystem with 48384 4k blocks and 48384 inodes
Filesystem UUID: 14e33af1-a080-4452-b0f3-c272cb8fad24
Superblock backups stored on blocks:
        32768

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME         FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0        squashfs 4.0                                                   0    100% /snap/core18/1988
loop1        squashfs 4.0                                                   0    100% /snap/core18/1885
loop2        squashfs 4.0                                                   0    100% /snap/gnome-3-34-1804/60
loop3        squashfs 4.0                                                   0    100% /snap/gnome-3-34-1804/66
loop4        squashfs 4.0                                                   0    100% /snap/gtk-common-themes/1514
loop5        squashfs 4.0                                                   0    100% /snap/snap-store/481
loop6        squashfs 4.0                                                   0    100% /snap/snap-store/518
loop7        squashfs 4.0                                                   0    100% /snap/snapd/11036
loop8        squashfs 4.0                                                   0    100% /snap/gtk-common-themes/1506
loop9        squashfs 4.0                                                   0    100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5   ntfs               4F029D672A8E6A0C
├─loop10p6   vfat     FAT32     0C81-8E76
├─loop10p7   ext2     1.0       7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
├─loop10p8   ext3     1.0       d7894374-9844-4cf3-88ad-af730e6f44fb
├─loop10p9   ext4     1.0       14e33af1-a080-4452-b0f3-c272cb8fad24
├─loop10p10
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2       vfat     FAT32     CD57-8907                              504,2M     2% /boot/efi
└─sda3       ext4     1.0       5d168e49-e2d2-4f75-8196-4fdbac6470ef     2,3G    70% /
sr0
```

```
taiiiga@raw:/mnt/virtualdisk$ sudo tune2fs -l /dev/loop10p9 | grep features
Filesystem features:      has_journal ext_attr resize_inode dir_index filetype extent 64bit flex_bg sparse_super large_file huge_file dir_nli
nk extra_isize metadata_csum
```

8. на одном из разделов создать файловую систему Btrfs

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.btrfs /dev/loop10p10
btrfs-progs v5.7
See http://btrfs.wiki.kernel.org for more information.

Label:              (null)
UUID:               9cff7a1b-f286-4541-b78c-9b2fa04a0139
Node size:          16384
Sector size:        4096
Filesystem size:    189.00MiB
Block group profiles:
  Data:             single              8.00MiB
  Metadata:         DUP                 32.00MiB
  System:           DUP                 8.00MiB
SSD detected:       no
Incompat features:  extref, skinny-metadata
Runtime features:
Checksum:           crc32c
Number of devices:  1
Devices:
   ID          SIZE  PATH
    1     189.00MiB  /dev/loop10p10
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME         FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0        squashfs 4.0                                                    0   100% /snap/core18/1988
loop1        squashfs 4.0                                                    0   100% /snap/core18/1885
loop2        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5        squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6        squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7        squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9        squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
├─loop10p1
├─loop10p5   ntfs               4F029D672A8E6A0C
├─loop10p6   vfat     FAT32     0C81-8E76
├─loop10p7   ext2     1.0       7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
├─loop10p8   ext3     1.0       d7894374-9844-4cf3-88ad-af730e6f44fb
├─loop10p9   ext4     1.0       14e33af1-a080-4452-b0f3-c272cb8fad24
├─loop10p10  btrfs              9cff7a1b-f286-4541-b78c-9b2fa04a0139
├─loop10p11
└─loop10p12
sda
├─sda1
├─sda2       vfat     FAT32     CD57-8907                            504,2M     2% /boot/efi
└─sda3       ext4     1.0       5d168e49-e2d2-4f75-8196-4fdbac6470ef   2,3G    70% /
sr0
```

9. на одном из разделов создать файловую систему xfs

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkfs.xfs /dev/loop10p11
meta-data=/dev/loop10p11         isize=512    agcount=4, agsize=12096 blks
         =                       sectsz=512   attr=2, projid32bit=1
         =                       crc=1        finobt=1, sparse=1, rmapbt=0
         =                       reflink=1
data     =                       bsize=4096   blocks=48384, imaxpct=25
         =                       sunit=0      swidth=0 blks
naming   =version 2              bsize=4096   ascii-ci=0, ftype=1
log      =internal log           bsize=4096   blocks=1368, version=2
         =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime =none                   extsz=4096   blocks=0, rtextents=0
Discarding blocks...Done.
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME         FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0        squashfs 4.0                                                    0   100% /snap/core18/1988
loop1        squashfs 4.0                                                    0   100% /snap/core18/1885
loop2        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5        squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6        squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7        squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9        squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
 ├─loop10p1
 ├─loop10p5  ntfs                 4F029D672A8E6A0C
 ├─loop10p6  vfat     FAT32       0C81-8E76
 ├─loop10p7  ext2     1.0         7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
 ├─loop10p8  ext3     1.0         d7894374-9844-4cf3-88ad-af730e6f44fb
 ├─loop10p9  ext4     1.0         14e33af1-a080-4452-b0f3-c272cb8fad24
 ├─loop10p10 btrfs                9cff7a1b-f286-4541-b78c-9b2fa04a0139
 ├─loop10p11 xfs                  5a23cc75-be34-4bc9-ab18-ff103d76ea48
 └─loop10p12
sda
 ├─sda1
 ├─sda2      vfat     FAT32       CD57-8907                             504,2M     2% /boot/efi
 └─sda3      ext4     1.0         5d168e49-e2d2-4f75-8196-4fdbac6470ef    2,3G    70% /
sr0
```

10. монтировать все разделы в подкаталоги каталога
/mnt/фамилия/название файловой системы

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkdir /mnt/Khisamov
taiiiga@raw:/mnt/virtualdisk$ sudo mkdir /mnt/Khisamov/ntfs
taiiiga@raw:/mnt/virtualdisk$ sudo mount -t ntfs /dev/loop10p5 /mnt/Khisamov/ntfs
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME         FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0        squashfs 4.0                                                    0   100% /snap/core18/1988
loop1        squashfs 4.0                                                    0   100% /snap/core18/1885
loop2        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3        squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5        squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6        squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7        squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8        squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9        squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
 ├─loop10p1
 ├─loop10p5  ntfs                 4F029D672A8E6A0C                      186,5M     1% /mnt/Khisamov/ntfs
 ├─loop10p6  vfat     FAT32       0C81-8E76
 ├─loop10p7  ext2     1.0         7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc
 ├─loop10p8  ext3     1.0         d7894374-9844-4cf3-88ad-af730e6f44fb
 ├─loop10p9  ext4     1.0         14e33af1-a080-4452-b0f3-c272cb8fad24
 ├─loop10p10 btrfs                9cff7a1b-f286-4541-b78c-9b2fa04a0139
 ├─loop10p11 xfs                  5a23cc75-be34-4bc9-ab18-ff103d76ea48
 └─loop10p12
sda
 ├─sda1
 ├─sda2      vfat     FAT32       CD57-8907                             504,2M     2% /boot/efi
 └─sda3      ext4     1.0         5d168e49-e2d2-4f75-8196-4fdbac6470ef    2,3G    70% /
sr0
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk -f
NAME          FSTYPE   FSVER LABEL UUID                                 FSAVAIL FSUSE% MOUNTPOINT
loop0         squashfs 4.0                                                    0   100% /snap/core18/1988
loop1         squashfs 4.0                                                    0   100% /snap/core18/1885
loop2         squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/60
loop3         squashfs 4.0                                                    0   100% /snap/gnome-3-34-1804/66
loop4         squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1514
loop5         squashfs 4.0                                                    0   100% /snap/snap-store/481
loop6         squashfs 4.0                                                    0   100% /snap/snap-store/518
loop7         squashfs 4.0                                                    0   100% /snap/snapd/11036
loop8         squashfs 4.0                                                    0   100% /snap/gtk-common-themes/1506
loop9         squashfs 4.0                                                    0   100% /snap/snapd/9721
loop10
─loop10p1
─loop10p5    ntfs                4F029D672A8E6A0C                       186,5M     1% /mnt/Khisamov/ntfs
─loop10p6    vfat     FAT32      0C81-8E76                              186,1M     0% /mnt/Khisamov/vfat
─loop10p7    ext2     1.0        7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc   173,5M     0% /mnt/Khisamov/ext2
─loop10p8    ext3     1.0        d7894374-9844-4cf3-88ad-af730e6f44fb   157,5M     0% /mnt/Khisamov/ext3
─loop10p9    ext4     1.0        14e33af1-a080-4452-b0f3-c272cb8fad24   153,6M     0% /mnt/Khisamov/ext4
─loop10p10   btrfs               9cff7a1b-f286-4541-b78c-9b2fa04a0139     108M     2% /mnt/Khisamov/btrfs
─loop10p11   xfs                 5a23cc75-be34-4bc9-ab18-ff103d76ea48   172,7M     6% /mnt/Khisamov/xfs
─loop10p12
sda
├─sda1
├─sda2       vfat     FAT32      CD57-8907                              504,2M     2% /boot/efi
└─sda3       ext4     1.0        5d168e49-e2d2-4f75-8196-4fdbac6470ef     2,3G    70% /
sr0
```

11. сделать автоматическое монтирование при загрузке, используя UUID дисков

```
  GNU nano 5.2                                        /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/sda3 during installation
UUID=5d168e49-e2d2-4f75-8196-4fdbac6470ef /              ext4    errors=remount-ro 0       1
# /boot/efi was on /dev/sda2 during installation
UUID=CD57-8907  /boot/efi       vfat    umask=0077      0       1
/swapfile                                 none           swap    sw              0       0
UUID=4F029D672A8E6A0C /mnt/Khisamov/ntfs ntfs defaults 0 0
UUID=0C81-8E76 /mnt/Khisamov/vfat fat32 defaults 0 0
UUID=7eb4b20d-a0b2-4439-a6b4-fd7f1d3851fc /mnt/Khisamov/ext2 ext2 defaults 0 0
UUID=d7894374-9844-4cf3-88ad-af730e6f44fb /mnt/Khisamov/ext3 ext3 defaults 0 0
UUID=14e33af1-a080-4452-b0f3-c272cb8fad24 /mnt/Khisamov/ext4 ext4 defaults 0 0
UUID=9cff7a1b-f286-4541-b78c-9b2fa04a0139 /mnt/Khisamov/btrfs btrfs defaults 0 0
UUID=5a23cc75-be34-4bc9-ab18-ff103d76ea48 /mnt/Khisamov/xfs xfs defaults 0 0
```

12. на одном из разделов создать файловую систему для SWAP

```
taiiiga@raw:/mnt/virtualdisk$ sudo mkswap /dev/loop10p12
Setting up swapspace version 1, size = 189 MiB (198176768 bytes)
no label, UUID=03b31ec3-6bb1-4268-83c0-000ad2f2524b
taiiiga@raw:/mnt/virtualdisk$ sudo swapon /dev/loop10p12
taiiiga@raw:/mnt/virtualdisk$ sudo swapon -s
Filename                                Type            Size      Used    Priority
/swapfile                               file            459208    0       -2
/dev/loop10p12                          partition       193532    0       -3
```

```
taiiiga@raw:/mnt/virtualdisk$ lsblk
NAME          MAJ:MIN RM    SIZE RO TYPE MOUNTPOINT
loop0            7:0    0   55,5M  1 loop /snap/core18/1988
loop1            7:1    0   55,3M  1 loop /snap/core18/1885
loop2            7:2    0  217,9M  1 loop /snap/gnome-3-34-1804/60
loop3            7:3    0    219M  1 loop /snap/gnome-3-34-1804/66
loop4            7:4    0   64,8M  1 loop /snap/gtk-common-themes/1514
loop5            7:5    0   50,7M  1 loop /snap/snap-store/481
loop6            7:6    0     51M  1 loop /snap/snap-store/518
loop7            7:7    0   31,1M  1 loop /snap/snapd/11036
loop8            7:8    0   62,1M  1 loop /snap/gtk-common-themes/1506
loop9            7:9    0   30,9M  1 loop /snap/snapd/9721
loop10           7:10   0      2G  0 loop
 ├─loop10p1    259:0    0      1K  0 part
 ├─loop10p5    259:1    0    189M  0 part /mnt/Khisamov/ntfs
 ├─loop10p6    259:2    0    189M  0 part /mnt/Khisamov/vfat
 ├─loop10p7    259:3    0    189M  0 part /mnt/Khisamov/ext2
 ├─loop10p8    259:4    0    189M  0 part /mnt/Khisamov/ext3
 ├─loop10p9    259:5    0    189M  0 part /mnt/Khisamov/ext4
 ├─loop10p10   259:6    0    189M  0 part /mnt/Khisamov/btrfs
 ├─loop10p11   259:7    0    189M  0 part /mnt/Khisamov/xfs
 └─loop10p12   259:8    0    189M  0 part [SWAP]
sda              8:0    0     10G  0 disk
 ├─sda1          8:1    0      1M  0 part
 ├─sda2          8:2    0    513M  0 part /boot/efi
 └─sda3          8:3    0    9,5G  0 part /
sr0             11:0    1   1024M  0 rom
```

13. выполните проверку раздела с файловой системой EXT2

```
taiiiga@raw:/mnt/virtualdisk$ sudo umount /dev/loop10p7
taiiiga@raw:/mnt/virtualdisk$ sudo fsck /dev/loop10p7
fsck from util-linux 2.36
e2fsck 1.45.6 (20-Mar-2020)
/dev/loop10p7: clean, 11/48384 files, 1548/48384 blocks
```