

Ubuntu Disk and Partition Commands Cheat Sheet

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Full guide with explanations: www.ubuntufree.com/disk-partition-commands-in-ubuntu-with-examples/

Updated for Ubuntu 26.04 LTS (2026)

These disk and partition commands work on Ubuntu 26.04 LTS and Ubuntu 26.10. They cover listing drives, checking free space, partitioning and formatting a new disk, mounting it at boot and checking drive health. Copy-ready examples and a free cheat sheet are included.

List disks and partitions

Start every disk task by identifying the right device. These commands only read information.

1. Show block devices

Lists disks and partitions as a tree. -f adds filesystem type, label, UUID and free space.

```
lsblk
lsblk -f
```

2. Choose lsblk columns

Pick only the fields you need.

```
lsblk -o
NAME,SIZE,TYPE,FSTYPE,LABEL,MOUNTPOINTS
```

3. Show UUIDs and labels

Prints the UUID, label and type of every filesystem.

```
sudo blkid
```

4. Show partition tables

fdisk -l and parted -l print the partition layout of each disk.

```
sudo fdisk -l /dev/sdb
sudo parted -l
```

5. Show what is mounted where

findmnt prints mounts as a tree. -D gives a df-style view.

```
findmnt
findmnt /
findmnt -D
```

Check disk space

Use df to see how full each filesystem is, then du to find which folders are responsible.

6. Free space per filesystem

-h prints human-readable sizes. -T adds the filesystem type.

```
df -h
df -hT
```

7. Check inodes

A disk can run out of inodes, which limit the number of files, while space is still free.

```
df -i
```

8. Size of a folder

Summarises the total size of one directory.

```
du -sh ~/Downloads
```

9. Find the biggest folders

Lists first-level folders by size, largest last.

```
sudo du -h --max-depth=1 /var | sort -h
```

10. Interactive disk usage

ncdu lets you browse folders by size and delete from inside the tool.

```
sudo apt install ncdu
ncdu ~
```

Partition a new disk

The next commands destroy existing data on the target disk. Unmount it first and double-check the name with lsblk.

11. Wipe old signatures

Removes leftover filesystem and RAID signatures so tools do not get confused.

```
sudo wipefs -a /dev/sdb
```

13. Create one partition for the whole disk

Creates a partition named data covering the disk with optimal alignment.

```
sudo parted -a optimal /dev/sdb mkpart data
ext4 0% 100%
```

12. Create a GPT partition table

Writes a new, empty GPT label to the disk.

```
sudo parted /dev/sdb mklabel gpt
```

14. Partition interactively

fdisk is menu driven: n creates a partition, p prints the table, w writes and exits. cfdisk offers a simpler text interface.

```
sudo fdisk /dev/sdb
sudo cfdisk /dev/sdb
```

Format and repair filesystems

Format the partition, not the whole disk. ext4 is the default Linux filesystem on Ubuntu. Use exFAT for USB drives shared with Windows and macOS.

15. Create an ext4 filesystem

Formats the partition and gives it a label.

```
sudo mkfs.ext4 -L data /dev/sdb1
```

17. Change an ext4 label

Renames the filesystem without touching the data.

```
sudo e2label /dev/sdb1 backup
```

19. Grow a partition and filesystem

growpart extends partition 1 into free space, then resize2fs grows ext4 to match. growpart comes from cloud-guest-utils.

```
sudo growpart /dev/sdb 1
sudo resize2fs /dev/sdb1
```

16. Format a USB drive

FAT32 works everywhere. exFAT handles files over 4 GB. Install exfatprogs if mkfs.exfat is missing.

```
sudo mkfs.vfat -F 32 -n USB /dev/sdc1
sudo mkfs.exfat -n USB /dev/sdc1
```

18. Check and repair ext4

Run only on an unmounted filesystem. -f forces a check even if it looks clean.

```
sudo umount /dev/sdb1
sudo e2fsck -f /dev/sdb1
```

Mount drives and edit fstab

A filesystem is usable once it is mounted on a folder. Add it to /etc/fstab to mount it at every boot.

20. Mount a partition

Creates a mount point and attaches the filesystem to it.

```
sudo mkdir -p /mnt/data
sudo mount /dev/sdb1 /mnt/data
```

21. Unmount a partition

Close any files and terminals using it first.

```
sudo umount /mnt/data
```

22. Mount at boot by UUID

Copy the UUID from blkid and add one line to /etc/fstab. nofail lets the system boot if the drive is missing.

```
sudo blkid /dev/sdb1
sudo nano /etc/fstab
# add a line like this:
UUID=your-uuid-here /mnt/data ext4
defaults,nofail 0 2
```

23. Test fstab before rebooting

findmnt --verify checks the file for errors, daemon-reload refreshes systemd and mount -a mounts every entry.

```
sudo findmnt --verify
sudo systemctl daemon-reload
sudo mount -a
```

24. Mount USB drives as a normal user

udisksctl mounts under /media like the desktop does, and can power the drive off safely.

```
udisksctl mount -b /dev/sdc1
udisksctl unmount -b /dev/sdc1
udisksctl power-off -b /dev/sdc
```

Drive health and swap

Check drives before they fail, and confirm swap is active on systems with little RAM.

25. Check SMART health

smartctl reads the drive self-monitoring data. -H gives a pass or fail summary, -a shows everything.

```
sudo apt install smartmontools
sudo smartctl -H /dev/sda
sudo smartctl -a /dev/nvme0
```

26. Show swap

Ubuntu uses a swap file at /swap.img by default.

```
swapon --show
free -h
```

Disk commands quick reference

Task	Command
List disks	lsblk -f
Free space	df -hT
Folder sizes	sudo du -h --max-depth=1 /var sort -h
New GPT table	sudo parted /dev/sdb mklabel gpt
New partition	sudo parted -a optimal /dev/sdb mkpart data ext4 0% 100%
Format ext4	sudo mkfs.ext4 -L data /dev/sdb1

Task	Command
Mount	<code>sudo mount /dev/sdb1 /mnt/data</code>
Get UUID	<code>sudo blkid /dev/sdb1</code>
Test fstab	<code>sudo findmnt --verify && sudo mount -a</code>

Tips and best practices

GNOME Disks (gnome-disk-utility) and GParted do the same jobs with a graphical interface. They are a good way to double-check a layout before you run a destructive command in the terminal.

After mounting a new ext4 drive, it is owned by root. Give your user access with `sudo chown`, covered in the [chmod and chown guide](#) linked below.