

## \* chap :- 9 File operations \*

### \* Introduction

↳ Learning objectives

- Explore the file system and its hierarchy.
- Explain the file system layout and the purpose of important directories.
- List common file system types used in Linux.
- Understand disk partitions and mounting and checking file systems.
- Use NFS.
- Compare files and identify different file types.
- Back up and compare data.

## \* File system varieties

→ Linux supports a number of native filesystem type, expressly created by Linux developers.

Such as

- ext3
- ext4
- squashfs
- btrfs

→ It also offers implementations of file systems used on other alien operating system, such as those from.

- windows (ntfs, vfat, exfat)
- SGI (XFS)
- IBM (JFS)
- macOS (hfs, hfs+)

→ many older, legacy filesystem, such as FAT are also supported.

→ The most advanced file system types in common use are the journaling varieties : ext4, xfs, btrfs and jfs.

→ Linux also makes use of network filesystems where all or part of the filesystem is on external machines.

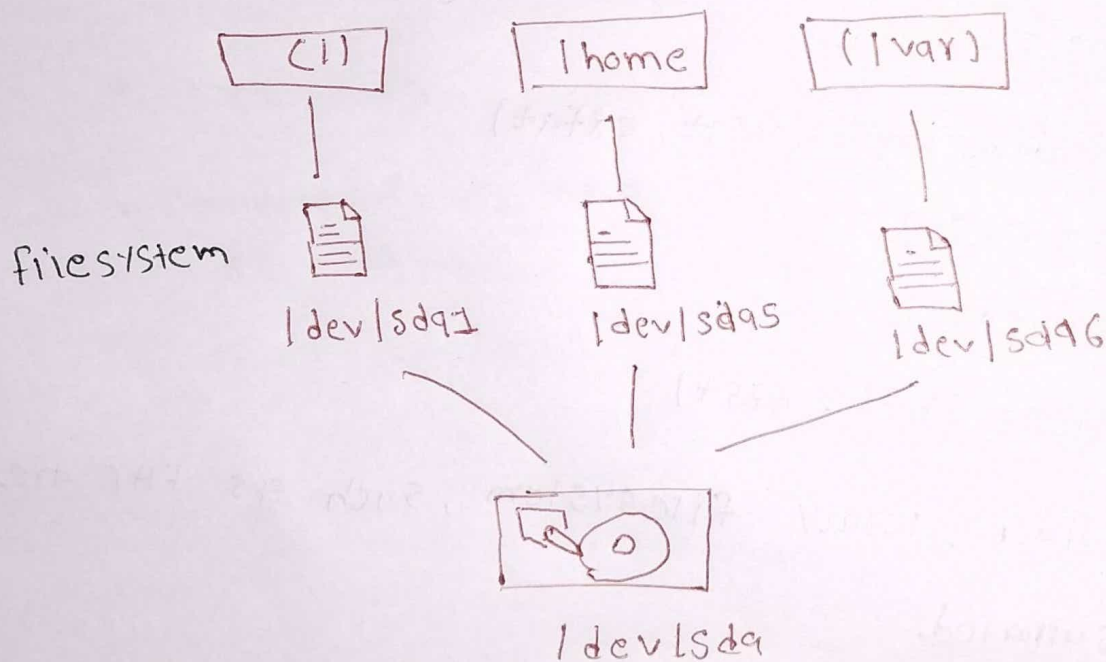
## \* Mount Points

→ Before you can start using a file system you need to mount it on file system tree at a mount point.

→ This is simply a directory where the file system is to be grafted on.

→ Sometimes you may need to create the directory if it does not already exist.

### Mount Points (1)



→ If you mount a file system on non-empty directory, the former contents of the directory are covered up and not accessible until the file system is unmounted.

∴ Thus, mount points are usually empty directories.