

# The Filesystem: Takeaways

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## Syntax

- Listing the contents of a directory.
  - Listing the non-hidden contents of the current directory without any options: `ls`
  - Listing the non-hidden contents of path `/home/dq` : `ls /home/dq`
  - Listing the non-hidden contents of the current directory in long format: `ls -l`
  - Listing all contents of the current directory: `ls -a`
  - Listing all contents of the current directory except for the directories `.` and `..` : `ls -A`
  - Listing all contents of `/home/dq` in long format, except for the directories `.` and `..` :  
`ls -Al`
- Changing directories:
  - Change to directory `/home` : `cd /home`
  - Change to the parent directory of the current directory: `cd ..`
  - Change to the parent directory of the parent directory of the current directory: `cd ../../`
  - Change to your home directory: `cd`
  - Change your home directory: `cd ~`
  - Change to the home directory of user dq: `cd ~dq`
  - Change to the previous directory: `cd -`

## Concepts

- Files are organized in a **hierarchical directory structure**. It is an organizational system for files and directories, in which files and directories are contained in other directories.
- A **path** is a sequence of slashes and files and directory names that define the location of a file or directory.
  - An **absolute path** is any path that starts with a slash. It tells us how to go from the root directory to the location of the the file specified by the path.
  - All others paths are **relative paths**. They tell us how to go from the current directory to the location of the the file specified by the path.
- The **root directory** is defined by the path `/` . It is the only directory that isn't contained in any other directory.
- The **home directory** of user `<username>` is `/home/<username>` .

## Resources

- The [Filesystem Hierarchy Standard](#) as defined by the [Linux Foundation here](#).

