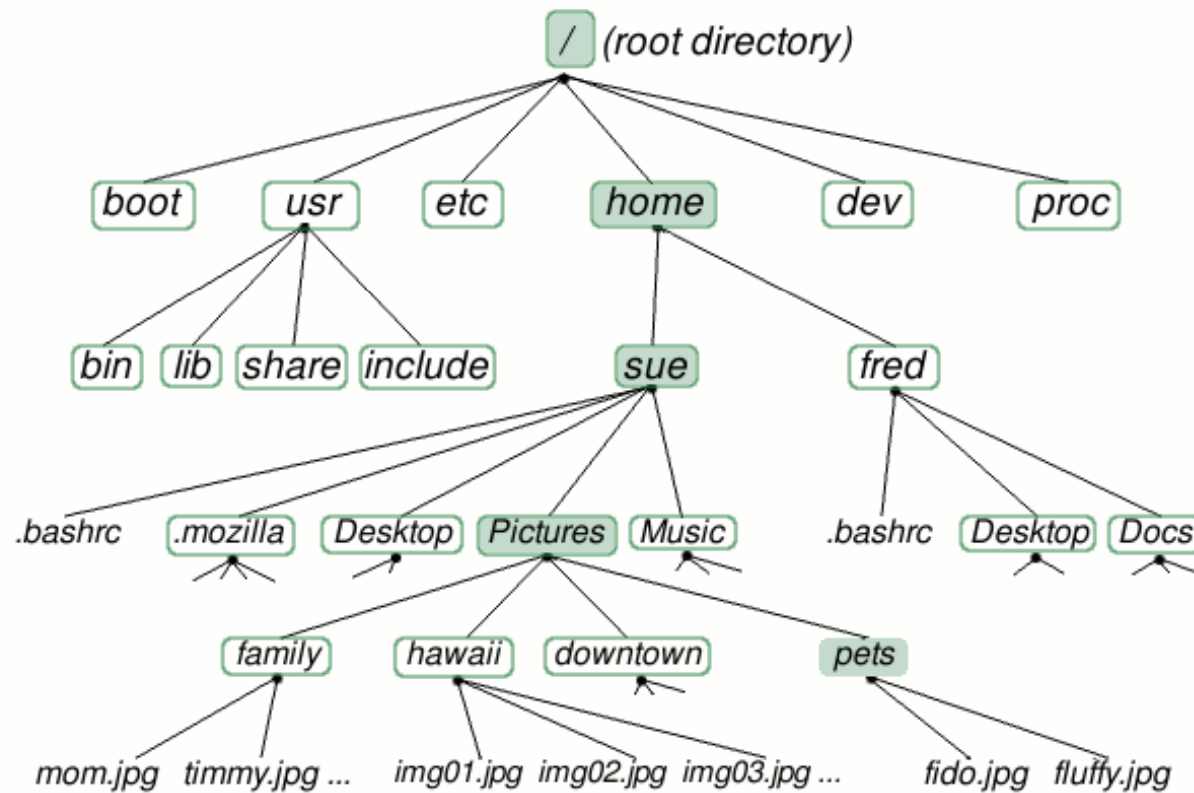


Basic bash commands

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Linux Directory Hierarchy (example)





Absolute and Relative Paths

- Absolute path
 - Exact path from root directory
 - ex. `/var/www`
- Relative path
 - Relative to the current path
 - `./` means current directory
 - `../` means parent directory
 - `~/` home directory
- Case sensitive

cd command

- `cd [directory-name]`
 - ex.
 - `/home/amir$ cd /var/www`
 - `/var/www$ cd ../`
 - `/var$ cd ./www`
 - `/var/www$ cd /root`
 - `/root$ cd -`
 - `/var/www$ cd`
 - `/home/amir$`
- `pwd`
 - Print Working Directory



pushd/popd/dirs commands

- **pushd [directory-name]**
 - Makes the current working directory be the top of the stack, and then executes the equivalent of `'cd dir'`. cds to dir.
- **popd**
 - Remove the top entry from the directory stack, and cd to the new top directory.
- **dirs**
 - Display the list of currently remembered directories.

ls command

- `ls [options]... [pathnames]..`
 - List information about files.

Options	Means
-a , --all	Do not hide entries starting with .
-d, --directory	List directory entries instead of contents
-l	Long listing format
-s, --size	Print size of each file, in blocks
-k, --kilobytes	Use 1kbyte blocks
-1	list one file per line
-R	Includes the contents of subdirectories.
-Z	Selinux related information

ls command (continue...)

Permissions	Directories	user	Group	Size	Date	Directory or File
drwxr-xr-x	4	amir	amir	4096	2008-12-26 01:22	Desktop
drwxr-xr-x	2	amir	amir	4096	2008-12-26 01:22	Documents
drwxr-xr-x	2	amir	amir	4096	2008-12-26 01:22	Download
drwxr-xr-x	2	amir	amir	4096	2008-12-26 01:22	Public

- **Permissions** - The permissions of the directory or file.
- **Directories** - The amount of links or directories within the directory. The default amount of directories is going to always be 2 because of the . and .. directories.
- **Group** - The group assigned to the file or directory
- **Size** - Size of the file or directory.
- **Date** - Date of last modification.
- **Directory of file** - The name of the file or file.

ls command (continue...)

- Here is list of most common colors:
 - Normal file : Normal
 - Directory: Blue
 - Symbolic link : Cyan
 - Archives or compressed : Red (.tar, .gz, .zip, .rpm)
 - Image files : Magenta (.jpg, .gif, .bmp, .png, .tif)
- Where is color of ls command defined?
 - /etc/DIR_COLORS

cp commands

- `cp [options]... Source Dest`
 - Copy one or more files to another location
- `cp [options]... Source... Directory`
 - Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

Options	Means
-f, --force	remove existing destinations, never prompt
-R, --recursive	copy directories recursively
-v, --verbose	explain what is being done

rm/rmdir commands

- `rm [options]... file...`

Options	Means
<code>-f, --force</code>	remove existing destinations, never prompt
<code>-R, --recursive</code>	remove directories recursively
<code>-v, --verbose</code>	explain what is being done

- `rmdir folder(s)...`
 - Remove directory, this command will only work if the folders are empty

mv command

- `mv [options]... Source Dest`
 - 'mv' moves each other given file into a file with the same name in that directory
- `mv [options]... Source... Directory`
 - it renames the first as the second

Options	Means
-f, --force	remove existing destinations, never prompt
-v, --verbose	explain what is being done

Redirection operators

- Input redirector
 - <
- Output redirector
 - > (override)
 - >> (append)
- Pipe
 - |
 - It allows you to feed the output of one process to the input of another process

cat command

- Simple usage
 - `cat [filename]`
 - Shows file contents
 - `cat > [filename]`
 - Create or override filename
 - Ctrl+D : EOF
 - `cat -n [filename]`
 - Add line number

Manual page

- Man [section] [command]
 - Displays helpful information about commands

Section	Description
1	General commands
2	System calls
3	C library functions
4	Special files (usually devices, those found in /dev) and drivers
5	File formats and conventions
6	Games and screensavers
7	Miscellanea
8	System administration commands and daemons