

Source: <https://github.com/RehanSaeed/Bash-Cheat-Sheet/blob/main/README.md>
You should be familiar with the following unix/bash commands:

Navigating Directories

```
pwd                # Print current directory path
ls                 # List directories
ls -a|--all        # List directories including hidden
ls -l              # List directories in long form
ls -l -h|--human-readable # List directories in long form with human readable sizes
ls -t              # List directories by modification time, newest first
cd foo             # Go to foo sub-directory
cd                 # Go to home directory
cd ~               # Go to home directory
cd -               # Go to last directory
```

Directories

```
mkdir foo          # Create a directory
mv foo bar         # Move directory
rmdir foo          # Delete non-empty directory
```

Standard Output, Standard Error and Standard Input

```
echo "foo" > bar.txt      # Overwrite file with content
echo "foo" >> bar.txt      # Append to file with content
```

Moving Files

```
cp foo.txt bar.txt      # Copy file
mv foo.txt bar.txt      # Move file
```

Deleting Files

```
rm foo.txt            # Delete file
```

Reading Files

```
cat foo.txt           # Print all contents
less foo.txt           # Print some contents at a time
    (g - go to top of file, SHIFT+g, go to bottom of file, /foo to search for 'foo')
head foo.txt           # Print top 10 lines of file
tail foo.txt           # Print bottom 10 lines of file
open foo.txt           # Open file in the default editor
```

```
wc foo.txt          # List number of lines words and characters in the file
```

File Permissions

#	Permission	rwx	Binary
-	-	-	-
7	read, write and execute	rwx	111
6	read and write	rw-	110
5	read and execute	r-x	101
4	read only	r--	100
3	write and execute	-wx	011
2	write only	-w-	010
1	execute only	--x	001
0	none	---	000

For a directory, execute means you can enter a directory.

- u - User
- g - Group
- o - Others
- a - All of the above

```
ls -l foo.sh          # List file permissions
chmod u+x foo.sh       # Give the user execute permission
chmod g+x foo.sh       # Give the group execute permission
chmod u-x,g-x foo.sh   # Take away the user and group execute permission
chmod u+x,g+x,o+x foo.sh # Give everybody execute permission
chmod a+x foo.sh       # Give everybody execute permission
chmod +x foo.sh        # Give everybody execute permission
```

Finding Files

Find binary files for a command.

```
which wget             # Find the binary
```

Find in Files

```
grep 'foo' bar.txt     # Search for 'foo' in file 'bar.txt'
```

Disk Usage

```
df                     # List disks, size, used and available space
du                     # List current directory, subdirectories and file sizes
```

Identifying Processes

ps all	# List all processes
CTRL+Z	# Suspend a process running in the foreground
bg	# Resume a suspended process and run in the background
fg	# Bring the last background process to the foreground
fg 1	# Bring the background process with the PID to the foreground
sleep 30 &	# Sleep for 30 seconds and move the process into the background
jobs	# List all background jobs
jobs -p	# List all background jobs with their PID

Killing Processes

CTRL+C	# Kill a process running in the foreground
kill PID	# Shut down process by PID gracefully. Sends TERM signal.
kill -9 PID	# Force shut down of process by PID. Sends SIGKILL signal.