

Unix Cheatsheet

Basic Commands

pwd: print the current directory
ls: list the files in the current directory
cd: change the current directory
cat: print the contents of a file
man will display the help page for a command
touch: create an empty file
mv: move/rename a file or directory
cp: copy a file to a new location
rm: remove a file
mkdir: create a directory

Examples

```
#show current directory
$ pwd
#show files in current directory
$ ls .
# change to the src directory
$ cd ./src
# print the contents of hello.txt
$ cat ./hello.txt.py
# show files cats folder which is found in the parents parent Picture
directory
$ ls ../../Pictures/cats
# show the help page for the ls command
$ man ls
# make directory folder-one in the current directory
$ mkdir folder-one
# make directory folder-two in the current directory
$ mkdir folder-two
# make directory backups in the current directory
$ mkdir backups
# make empty file hello.txt in folder-one
$ touch folder-one/hello.txt
# move hello.txt from folder-one to folder-two
$ mv folder-one/hello.txt folder-two
# copy hello.txt to backups directory
$ cp folder-two/hello.txt backups/
# delete hello.txt from folder-two
$ rm folder-two/hello.txt
# delete folder-two and the containing sub-folders and files
$ rm -rf folder-two
```

Useful Commands

echo: print some text to the screen

history: show list of previously run commands

clear: wipe the screen

less: show the contents of a file in a paginated way

head: display the first **n** lines of input

tail: display the last **n** lines of input

grep: search text in files

find: search a file by name or other properties

whereis: get the location of a program

sudo allows regular users to become root temporarily so they can run privileged commands

export sets environment variable **nano** creates a simple text editor **vi** creates a vim text editor **chmod**: change file permissions. Usage:(chmod < target >< +/- >< access_type > file)

Targets:

u: owner

g: group

a: all (everyone)

Access Type:

r: read

w: write

x: execute

```
# search for the "hello" in the folder directory
$ grep "hello" ./folder/*
# flags are -i (case-insensitive) and -r (recursive)
$ grep -ri "hello" ./folder
# search for file named "app.py"
$ find ./ -name "app.py"
# You can also use wildcards
$ find ./ -name "app*"
# look for the location of grep
$ whereis grep
# Everyone can read
$ chmod a+r hello.txt
# Only the owner of the file can write
$ chmod u+w hello.txt
# Everyone (All) can no longer read
$ chmod a-r hello.txt
# root user copy python3 to python-three
$ sudo cp /bin/python3 /bin/python-three
# Print the value of an environment variable
echo $PATH
# Set an environment variable
export MYNEWVAR="hello"
```