

Useful Simple Bash Commands

- `ls`: List the contents of a directory
- `pwd`: Print the current Working Directory
- `mkdir`: MaKe a DIRectory
- `cd`: Change Directory
- `rm`: ReMove a file or directory
 - THIS IS PERMANENT! There is no recycle bin or way to recover files removed like this. Be careful.
- `cp`: CoPy a file or directory
- `mv`: MoVe a file or directory

Examples: `ls`

- `ls`
 - List the contents of the current directory
- `ls -a`
 - List the contents of the current directory, including hidden files
- `ls /`
 - List the files in the root of the drive
- `ls /etc/X11`
 - List the files in the absolute directory `/etc/X11`
- `ls ..`
 - List the files in the parent directory
- `ls .. -a`
 - List the files in the parent directory including hidden files

Practice: `ls` (and solutions)

- List the contents of your home directory. Do not include hidden files.

```
ls
```

- List the contents of your home directory. Tell `ls` to also include hidden files and directories.

```
ls -a
```

Examples: `mkdir`

- `mkdir a01`
 - Create a directory named "a01"
- `mkdir cs53/assignments/a01`
 - Create a directory named "a01" in the `cs53/assignments` directory. If `cs53` or `cs53/assignments` do not exist, errors.
- `mkdir -p cs53/assignments/a01`
 - Create a directory named "a01" in the `cs53/assignments` directory. If `cs53` or `cs53/assignments` do not exist, create them as well
- `mkdir ../foobar`
 - Create a directory named `foobar` in the parent directory

- `mkdir ~/local`
 - Create a directory named local in the home directory

Practice: mkdir (and solutions)

- Create the directory `classes/cs54` in your home directory (in other words, create the directory `~/classes/cs54`). If the `~/classes` directory doesn't exist, create it as well.

```
mkdir -p ~/classes/cs54
```

Examples: cd

- `cd`
 - Change to the Home directory
- `cd ~`
 - Change to the Home directory
- `cd -`
 - Change to the directory we were in previously
- `cd ../asdf`
 - Change to the directory named asdf in the parent directory
- `cd ~/Documents`
 - Change to the Documents directory in the home directory
- `cd assignments`
 - Change to the assignments directory in the current directory

Practice: cd (and solutions)

- `cd` to the `classes/cs54` directory you made in the previous step.

```
cd classes/cs54 (or cd ~/classes/cs54 if you are not in the home directory)
```

- `cd` back to your home directory.

```
cd or cd ~
```

- `cd` back to the `classes/cs54` directory. Try to do this with a different command as in the first step.

```
cd -
```

Examples: rm

- `rm main.cpp`
 - delete `main.cpp` from the current directory
- `rm ../Makefile`
 - delete the `Makefile` from the parent directory
- `rm -rf ~/cs53`
 - Remove the `cs53` directory (or file) from the home directory
 - Note, the `-rf` is necessary if you are removing a directory
- `rm ~/programs/*.cpp`
 - Remove all files with the `.cpp` extension from the `~/programs` directory
- `rm *`
 - Remove all files (not directories) from the current directory

Practice: rm (and solutions)

- create a directory (using mkdir) and delete it using rm.

```
mkdir foo
```

```
rm -rf foo
```

- Issue the following command: `touch asdf`
 - This creates an empty file named asdf
- Now, delete the file asdf

```
rm asdf
```

Examples: cp

- `cp file1 file2`
 - Copy the file named file1 to a file named file2
- `cp ../main.cpp .`
 - Copy the file main.cpp from the parent directory to this directory
- `cp -r foo/ bar/`
 - Copy the directory foo recursively (i.e. make a folder named bar and duplicate all items in foo into bar) to the directory bar. Note: The -r is necessary when copying directories.

Practice: cp (and solutions)

- Issue the command: `touch foo`

```
touch foo
```

- copy the file foo to a file named bar

```
cp foo bar
```

- remove both files foo and bar

```
rm * (if nothing else in directory) or rm foo bar
```

Examples: mv

- `mv file1 file2`
 - Move the file named file1 to a file named file2
- `mv ../main.cpp .`
 - Move the file main.cpp from the parent directory to this directory
- `mv foo/ bar/`
 - Move the directory foo to the directory bar. In other words, rename the directory foo to bar. Note: There is no -r flag needed when moving directories

Practice: mv (and solutions)

- Issue the command: `touch foo`

```
touch foo
```

- move the file foo to a file named bar

```
mv foo bar
```

- remove the file named bar

rm bar