

Popquiz 1

ungraded & anonymous

Test your knowledge of shell commands from memory! Remember to use `verbose` mode for all commands whenever that's possible and useful!

1. Check your current directory:

```
pwd
```

```
/home/marcus/GitHub/admin/RoamNotes
```

2. If you're not in your home directory, go there - write down three different commands to get there:

```
cd $HOME; pwd
cd ~; pwd
cd /home/marcus; pwd
```

```
/home/marcus
/home/marcus
/home/marcus
```

3. Create two directories `dir1` and `dir2` in your home directory:

1. for `dir1`, use an absolute path
2. for `dir2`, use a relative path.
3. check that these directories exist where they should exist.

```
mkdir -v ~/dir1
mkdir -v /home/marcus/dir2
ls -l ~/dir* # -v does not add anything to viewing commands
```

```
mkdir: created directory '/home/marcus/dir1'
mkdir: created directory '/home/marcus/dir2'
/home/marcus/dir1:
total 0

/home/marcus/dir2:
total 0
```

4. Create an empty files `test1` in `dir1`, and an empty file `test2` in `dir2`: use two different commands. Check that the files exist.

```
touch ~/dir1/test1 # touch is built-in
cp -v ~/dir1/test1 ~/dir2/test2
ls -l ~/dir*
```

```
'/home/marcus/dir1/test1' -> '/home/marcus/dir2/test2'
/home/marcus/dir1:
total 0
-rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1

/home/marcus/dir2:
total 0
```

```
-rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test2
```

- Interestingly, `echo > test` create a non-empty file.

```
cd ~  
echo > test3  
ls -l test3
```

```
-rw-rw-r-- 1 marcus marcus 1 Feb 26 19:10 test3
```

```
-rw-rw-r-- 1 marcus marcus 1 Feb 26 13:33 test3
```

5. Move `test1` into `dir2` and `test2` into `dir1`. Check for success.

```
mv -v ~/dir1/test1 ~/dir2 # move test1 to dir2  
mv -v ~/dir2/test2 ~/dir1 # move test2 to dir1  
ls -l ~/dir*
```

```
renamed '/home/marcus/dir1/test1' -> '/home/marcus/dir2/test1'  
renamed '/home/marcus/dir2/test2' -> '/home/marcus/dir1/test2'  
/home/marcus/dir1:  
total 0  
-rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test2  
  
/home/marcus/dir2:  
total 0  
-rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1
```

6. Create a hard link from `test2` to `dir2` and check success.

```
ln -v ~/dir1/test2 ~/dir2  
ls -il ~/dir1 ~/dir2
```

```
'/home/marcus/dir2/test2' => '/home/marcus/dir1/test2'  
/home/marcus/dir1:  
total 0  
4073453 -rw-rw-r-- 2 marcus marcus 0 Feb 26 19:10 test2  
  
/home/marcus/dir2:  
total 0  
4073451 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1  
4073453 -rw-rw-r-- 2 marcus marcus 0 Feb 26 19:10 test2
```

7. Create a soft link from `test1` to `dir1` and check success.

```
ln -vs ~/dir2/test1 ~/dir1  
ls -il ~/dir1 ~/dir2
```

```
'/home/marcus/dir1/test1' -> '/home/marcus/dir2/test1'  
/home/marcus/dir1:  
total 0  
4073454 lrwxrwxrwx 1 marcus marcus 23 Feb 26 19:10 test1 ->  
/home/marcus/dir2/test1  
4073453 -rw-rw-r-- 2 marcus marcus 0 Feb 26 19:10 test2  
  
/home/marcus/dir2:  
total 0  
4073451 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1  
4073453 -rw-rw-r-- 2 marcus marcus 0 Feb 26 19:10 test2
```

8. Remove the hard link in `dir2` without removing the original file, and check success.

```
rm -v ~/dir2/test2  
ls -il ~/dir1 ~/dir2
```

```
removed '/home/marcus/dir2/test2'
/home/marcus/dir1:
total 0
4073454 lrwxrwxrwx 1 marcus marcus 23 Feb 26 19:10 test1 ->
/home/marcus/dir2/test1
4073453 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test2

/home/marcus/dir2:
total 0
4073451 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1
```

1. Remove the soft link without removing the original file, and check success.

```
rm -v ~/dir1/test1
ls -il ~/dir1 ~/dir2
```

```
removed '/home/marcus/dir1/test1'
/home/marcus/dir1:
total 0
4073453 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test2

/home/marcus/dir2:
total 0
4073451 -rw-rw-r-- 1 marcus marcus 0 Feb 26 19:10 test1
```

2. Remove dir1 and dir2 with one command, and check success.

```
rm -rvf ~/dir*
ls -l ~/dir* 2>/dev/null # better with redirection of stderr
```

```
removed '/home/marcus/dir1/test2'
removed directory '/home/marcus/dir1'
removed '/home/marcus/dir2/test1'
removed directory '/home/marcus/dir2'
```