

Notes 6 - File Organization

mkdir

Definition

Makes empty directory if it does not already exist.

Usage / Formula

`mkdir` then an option, such as `-p` for making parent directories as needed, and then the `DIRECTORY` path. Uses relative path if absolute path is not specified.

Examples

```
mkdir projects # Creates project directory in current working directory
mkdir -p Pictures/vacation/hawaii-25 # Creates vacation if not made
mkdir -pv .local/share/Steam/steamapps/common/customgame
```

touch

Definition

Updates file timestamp to now. If file does not exist, it creates an empty file with current timestamp.

Usage / Formula

`touch`, then an argument such as `-c` to specify not to create a file or `-m` to only change the modification time, then the `FILE`'s path.

Examples

```
touch file1.txt file2.txt file3.txt # updates timestamp, creates and sets
timestamp if files are not made

touch -c file1.txt file2.txt file44.txt

# only updates made files and will not create more files
# since file44.txt was not present, will not create file44.txt
```

rm

Definition

Remove files or directories, this action is irreversible (no recycle bin or trash bin as used in GUI file managers).

Usage / Formula

`rm` then an option such as `-r` for recursively removing directories, then `[FILE]`

The use of `-f` is unprompted, making it dangerous as opposed to using `-r` by itself.

Examples

```
rm ~/Documents/oldfile.txt # removes oldfile.txt
```

Directories requiring `-r` flag:

```
rm ~/Documents/english # will not remove, will show error:  
rm: cannot remove 'english': Is a directory
```

rmdir

Definition

Remove an empty directory.

Usage / Formula

`rmdir` then an `[OPTION]`, followed by a `DIRECTORY`

Examples

Removing directories

```
> ls -lA  
total 0  
drwxr-xr-x. 1 admin2 admin2 0 Nov  9 20:55 grades  
drwxr-xr-x. 1 admin2 admin2 0 Nov  9 20:55 handouts  
drwxr-xr-x. 1 admin2 admin2 0 Nov  9 20:55 unfinished  
rmdir grades  
> ls -lA  
total 0  
drwxr-xr-x. 1 admin2 admin2 0 Nov  9 20:55 handouts  
drwxr-xr-x. 1 admin2 admin2 0 Nov  9 20:55 unfinished
```

Removing multiple directories

```
ls
documents info leftovers utils
rmdir info documents utils # remove multiple
ls
leftovers # only leftovers remain
```

cp

Definition

Copy a source file or directory to

Usage / Formula

Examples

```
cp document.txt ~/Documents
```

```
cp -r videos/ /mnt/nas/personal/
# copies files and directories in videos recursively

cp -rv Documents/ /mnt/nas/personal
# shows output of cp -r
'Documents/grades' -> '/mnt/nas/documents/grades'
'Documents/grades/grades1.txt' -> '/mnt/nas/documents/grades/grades1.txt'
'Documents/grades/grades2.txt' -> '/mnt/nas/documents/grades/grades2.txt'
```

mv

Definition

Rename or move a source to a destination. Move and changing the absolute path are functionally the same action.

Usage / Formula

mv, then an **[OPTION]**, followed by a **SOURCE** and a **DESTINATION**.

Examples

Prompt before overwrite:

```
mv -i grades2.txt grades1.txt
mv: overwrite 'grades1.txt'? n
```

```
ls
grades1.txt grades2.txt
```

Backup before moving:

```
touch txt2.txt
mv -b txt1.txt txt2.txt
ls
txt2.txt  txt2.txt~
```