20181002 advanced Unix arguments

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## Arguments

### What will the command ls -lat produce?

* A list of all file (names, sizes, and other information) arranged in chronological order with the most recently modified files at the top of the list.

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders (master)  
$ ls -lat  
total 19  
drwxr-xr-x 1 cheun 197609 0 Oct 2 01:18 .git  
drwxr-xr-x 1 cheun 197609 0 Oct 1 03:55 .  
-rw-r–r– 1 cheun 197609 222 Oct 1 03:55 wrangle-data.R  
drwxr-xr-x 1 cheun 197609 0 Oct 1 03:55 report\_files  
-rw-r–r– 1 cheun 197609 684 Oct 1 03:55 report.md  
-rw-r–r– 1 cheun 197609 951 Oct 1 03:55 report.Rmd  
-rw-r–r– 1 cheun 197609 169 Oct 1 03:55 download-data.R  
-rw-r–r– 1 cheun 197609 218 Oct 1 03:55 murders.Rproj  
drwxr-xr-x 1 cheun 197609 0 Oct 1 03:55 rdas  
drwxr-xr-x 1 cheun 197609 0 Oct 1 03:55 data  
-rw-r–r– 1 cheun 197609 235 Oct 1 03:55 analysis.R  
-rw-r–r– 1 cheun 197609 278 Oct 1 03:55 README.txt  
-rw-r–r– 1 cheun 197609 44 Oct 1 03:55 .gitignore  
drwxr-xr-x 1 cheun 197609 0 Oct 1 03:55 ..

### 

## rm-r

### What happens when you remove a directory using the command rm -r?

* You permanently remove the entire directory, including all files and subdirectories

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$ mkdir test

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders (master)  
$ cd test

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders/test (master)  
$ echo “testing” > abc.txt

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders/test (master)  
$ ls -lat  
total 5  
-rw-r–r– 1 cheun 197609 8 Oct 2 01:24 abc.txt  
drwxr-xr-x 1 cheun 197609 0 Oct 2 01:24 .  
drwxr-xr-x 1 cheun 197609 0 Oct 2 01:24 ..

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders/test (master)  
$ cd ..

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders (master)  
$ rm -r test

[cheun@DESKTOP-1JC77EH](mailto:cheun@DESKTOP-1JC77EH) ~/Documents/HarvardX-PH125.5x-Data-Science-Productivity-Tools/murders/murders (master)  
$ ls  
README.txt analysis.R data download-data.R murders.Rproj rdas report.Rmd report.md report\_files wrangle-data.R

#### The ‘test’ folder is gone

### 

## Other skills in the tutoria

* -f

force removal of protected files (e.g. rm -rf for force removal of a folder)

* -a

a for all  
ls -a showing the hidden files

* -l

a for long  
ls -l showing more info

* -t and -r

-t for time  
-r for reverse  
ls -t showing things in chrono order  
ls -r reverse the order

### So the ls -lat in the above example would be ‘long’ ‘all’ ‘time’