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<http://cheatsheetworld.com/programming/unix-linux-cheat-sheet/>

Hi!

Hi

Morning :)

Ciao!

Hello

hey

<https://software-carpentry.org/lessons/>

Go to:

<http://swcarpentry.github.io/shell-novice/setup.html>

download data-shell.zip and move this to your desktop

<https://gitforwindows.org/> -->

ls -l?

ls -l -h?

(The lowercase letter "e".) List in long format. (See below.) A total sum for all the file sizes is output on a line before the long listing.

when showing file information for a symbolic

link, show information for the file the link

references rather than for the link itself

-h human readable

(base) re-byodm-145-109-96-173:~ fran\$ ls -l

total 8

drwx-----@ 5 fran staff 160 May 11 2017 Applications

drwxrwxr-x@ 4 fran staff 128 Dec 2 09:01 Creative Cloud Files

drwx-----@ 7 fran staff 224 Dec 2 09:33 Desktop

```
drwx-----@ 8 fran staff 256 Jun 19 22:39 Documents
drwx-----+ 4 fran staff 128 Dec 2 09:26 Downloads
drwx-----@ 6 fran staff 192 Dec 2 09:02 Google Drive
drwx-----@ 71 fran staff 2272 Mar 10 2019 Library
drwx-----+ 6 fran staff 192 May 15 2019 Movies
drwx-----+ 4 fran staff 128 Oct 3 2018 Music
drwx-----+ 7 fran staff 224 Apr 2 2017 Pictures
drwxr-xr-x+ 6 fran staff 192 May 11 2017 Public
-rw----- 1 fran staff 1 Dec 1 16:06 nano.save
```

output Thomas: ls -l

```
total 32057
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 '3D Objects'/
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:50 Anaconda3/
drwxr-xr-x 1 Gebruiker 197121 0 Aug 19 23:10 AppData/
lrwxrwxrwx 1 Gebruiker 197121 34 Aug 19 23:08 'Application Data' ->
/c/Users/Gebruiker/AppData/Roaming/
drwxr-xr-x 1 Gebruiker 197121 0 Feb 20 2019 CLC_Data/
drwxr-xr-x 1 Gebruiker 197121 0 Feb 20 2019 CLCdatabases/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Contacts/
lrwxrwxrwx 1 Gebruiker 197121 62 Aug 19 23:08 Cookies ->
/c/Users/Gebruiker/AppData/Local/Microsoft/Windows/INetCookies/
drwxr-xr-x 1 Gebruiker 197121 0 Feb 22 2018 'Creative Cloud Files'/
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:37 Desktop/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 22 12:03 Documents/
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:33 Downloads/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 21 09:29 Dropbox/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Favorites/
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:26 IntelGraphicsProfiles/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Links/
lrwxrwxrwx 1 Gebruiker 197121 32 Aug 19 23:08 'Local Settings' ->
/c/Users/Gebruiker/AppData/Local/
lrwxrwxrwx 1 Gebruiker 197121 63 Aug 19 23:08 'Menu Start' ->
'/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/Start Menu/'
drwxr-xr-x 1 Gebruiker 197121 0 Dec 7 2017 MicrosoftEdgeBackups/
lrwxrwxrwx 1 Gebruiker 197121 28 Aug 19 23:08 'Mijn documenten' ->
/c/Users/Gebruiker/Documents/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Music/
lrwxrwxrwx 1 Gebruiker 197121 70 Aug 19 23:08 NetHood ->
'/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/Network Shortcuts/'
lrwxrwxrwx 1 Gebruiker 197121 70 Aug 19 23:08 Netwerkprinteromgeving ->
'/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/Printer Shortcuts/'
-rw-r--r-- 1 Gebruiker 197121 13893632 Dec 2 09:25 NTUSER.DAT
-rw-r--r-- 1 Gebruiker 197121 13279232 Aug 19 23:08 ntuser.dat.LOG1
-rw-r--r-- 1 Gebruiker 197121 3399680 Aug 19 23:08 ntuser.dat.LOG2
-rw-r--r-- 1 Gebruiker 197121 65536 Aug 19 23:08 NTUSER.DAT{1486b5a4-c2cc-11e9-b663-
b6fbf2adf0ee}.TM.blf
-rw-r--r-- 1 Gebruiker 197121 524288 Aug 19 23:08 NTUSER.DAT{1486b5a4-c2cc-11e9-b663-
```

```

b6fbf2adf0ee}.TMContainer00000000000000000001.regtrans-ms
-rw-r--r-- 1 Gebruiker 197121 524288 Aug 19 23:08 NTUSER.DAT{1486b5a4-c2cc-11e9-b663-
b6fbf2adf0ee}.TMContainer00000000000000000002.regtrans-ms
-rw-r--r-- 1 Gebruiker 197121 20 Aug 19 23:38 ntuser.ini
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:29 OneDrive/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Pictures/
drwxr-xr-x 1 Gebruiker 197121 0 Mar 7 2019 R/
lrwxrwxrwx 1 Gebruiker 197121 59 Aug 19 23:08 Recent ->
/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/Recent/
drwxr-xr-x 1 Gebruiker 197121 0 Sep 27 2016 Roaming/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 'Saved Games'/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Searches/
lrwxrwxrwx 1 Gebruiker 197121 59 Aug 19 23:08 SendTo ->
/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/SendTo/
lrwxrwxrwx 1 Gebruiker 197121 62 Aug 19 23:08 Sjablonen ->
/c/Users/Gebruiker/AppData/Roaming/Microsoft/Windows/Templates/
drwxr-xr-x 1 Gebruiker 197121 0 Dec 2 09:33 surfdrive/
drwxr-xr-x 1 Gebruiker 197121 0 Jun 22 2016 Tracing/
drwxr-xr-x 1 Gebruiker 197121 0 Nov 15 00:22 Videos/

```

arranges by time in reverse

What happens if you combine -t and -r in ls?

```

(base) Juliettes-MacBook-Air:data-shell juliettesilven$ ls -r
writing          solar.pdf        pizza.cfg        notes.txt        north-pacific-gyre
molecules        data            creatures
(base) Juliettes-MacBook-Air:data-shell juliettesilven$ ls -tr
solar.pdf        pizza.cfg        notes.txt        north-pacific-gyre  molecules
writing          data            creatures

```

sort by modification date and reverse order of the list
oldest file first

```

cd ~
cd ..
cd
cd ~/data/..

```

```
cd
```

```
cd ..
```

original/ pnas_final/ pnas_sub/

append indicator to the folder one up; thus to users

```
mv statistics.txt statistics.txt
```

```
ls *thane.pdb
ls *t??ne.pdb
95.0 102
95.0 102
```

```
95.0 102
```

```
95.0 102
95.0 102
```

```
Hopper Grace
Hopper Grace
Hopper Grace
```

```
test
```

```
filenames = ['very_long_name1', 'very_long_name2', 'very_long_name3', \
              'middle_len1', 'middle_len', 'shrt_nm1', 'shrt_nm2' ]
```

```
%matplotlib inline
```

```
import numpy
import glob
import matplotlib.pyplot
```

```
filenames = sorted(glob.glob('inflammation*.csv'))
```

```
def is_data_OK(array_with_data):
    # check whether data is fine
    if numpy.sum((numpy.min(array_with_data, axis=0))) == 0:
        print('Data dodgy')
        return False
    else:
        print('Data is fine')
        return True
```

```
def plot_data(array_with_data):
    #plot data
    fig = matplotlib.pyplot.figure(figsize=(10.0, 3.0))

    axes1 = fig.add_subplot(1,3,1)
    axes2 = fig.add_subplot(1,3,2)
    axes3 = fig.add_subplot(1,3,3)

    axes1.set_ylabel('average')
    axes1.plot(numpy.mean(array_with_data, axis=0))
```

```
axes2.set_ylabel('max')
axes2.plot(numpy.max(array_with_data, axis=0))
```

```
axes3.set_ylabel('min')
axes3.plot(numpy.min(array_with_data, axis=0))
```

```
matplotlib.pyplot.show()
```

```
return fig
```

```
for filename in filenames[:3]:
    print(filename)
```

```
# loading data into array
data = numpy.loadtxt(fname=filename, delimiter = ',')
```

```
# check whether data is fine
if is_data_OK(data):
    # plot data
    plot_data(data)
```