

Script started on Sun Sep 11 22:20:08 2016

#=====

Which shell?

#=====

wolf:~\$ ps

```
PID TTY      TIME CMD
21717 pts/6    00:00:00 bash
23878 pts/6    00:00:00 ps
```

wolf:~/csc209/w1\$ whoami
mgbarsky

#=====

making directories and files: mkdir and touch

#=====

wolf:~\$ pwd

/u/mgbarsky

wolf:~\$ mkdir fruits

wolf:~\$ cd fruits

wolf:~/fruits\$ mkdir banana

wolf:~/fruits\$ mkdir apple

wolf:~/fruits\$ mkdir melon

wolf:~/fruits\$ cd banana

wolf:~/fruits/banana\$ touch banana.1

wolf:~/fruits/banana\$ touch banana.2

wolf:~\$ echo yellow banana > fruits/banana/banana.3

#=====

See inode numbers: ls -i

#=====

wolf:~\$ ls -i

```
13067055 C:\nppdf32Log\debuglog.txt 13845540 csc209 14011315 fruits
17344081 Desktop                    13066904 demo 13066827 index.html
13066895 bar                        13066895 foo 13066246 typescript
```

wolf:~\$ ls -i fruits

```
14011318 apple 14011317 banana 14011319 melon
```

wolf:~\$ ls -i fruits/banana

```
14011320 banana.1 14011322 banana.2
```

#=====

#hard links, copy and rename: ln, cp, mv

#=====

wolf:~\$ cd fruits/banana

wolf:~/fruits/banana\$ cp banana.3 banana.4

wolf:~/fruits/banana\$ cat banana.4

yellow banana

```
wolf:~/fruits/banana$ mv banana.3 banana.5
wolf:~/fruits/banana$ cat banana.3
cat: banana.3: No such file or directory
wolf:~/fruits/banana$ cat banana.5
yellow banana
```

```
wolf:~$ ln fruits/banana my_bananas
ln: 'fruits/banana': hard link not allowed for directory
```

```
wolf:~$ ln fruits/banana/banana.1 b3
wolf:~$ cat b3
yellow banana
```

```
#=====
#Compressing files and creating archives: bzip2 and tar -cvf
#=====
```

```
wolf:~$ cd fruits/banana
wolf:~/fruits/banana$ ls
banana.1 banana.2 banana.4 banana.5
wolf:~/fruits/banana$ bzip2 banana.5
wolf:~/fruits/banana$ bzip2 banana.5
yellow banana
```

```
wolf:~/fruits/banana$ bunzip2 banana.5.bz2
wolf:~/fruits/banana$ ls
banana.1 banana.2 banana.4 banana.5
wolf:~/fruits/banana$ cd ..
wolf:~/fruits$ tar -cvf banana_compr banana
banana/
banana/banana.1
banana/banana.4
banana/banana.2
banana/banana.5
wolf:~/fruits$ ls
apple banana banana_compr melon
wolf:~/fruits$ tar -xvf banana_compr -C new_banana
```

```
wolf:~/fruits$ mkdir new_banana
wolf:~/fruits$ tar -xvf banana_compr -C new_banana
banana/
banana/banana.1
banana/banana.4
banana/banana.2
banana/banana.5
wolf:~/fruits$ ls
apple banana banana_compr melon new_banana
wolf:~/fruits$ ls new_banana/banana
```

banana.1 banana.2 banana.4 banana.5

wolf:~/fruits\$ cd

wolf:~\$ ls f*

foo

fruits:

apple banana banana_compr melon new_banana

wolf:~\$ ls f?o

foo

#=====

#Finding user groups and permissions: groups and ls -l

#=====

wolf:~\$ groups mgbarsky

mgbarsky : instrs csc209h csc343h cs209hi cs343hi

wolf:~\$ ls -l

total 20

-rw----- 1 mgbarsky instrs 72 May 30 13:49 C:\nppdf32Log\debuglog.txt

drwx----- 2 mgbarsky instrs 4096 May 19 15:21 Desktop

-rw----- 2 mgbarsky instrs 0 Sep 11 22:09 bar

drwx----- 4 mgbarsky instrs 4096 Sep 9 21:27 csc209

-rw----- 2 mgbarsky instrs 0 Sep 11 22:09 foo

drwx----- 6 mgbarsky instrs 4096 Sep 11 22:59 fruits

-rwxr-x--x 1 mgbarsky instrs 9 Apr 18 15:06 index.html

-rw----- 1 mgbarsky instrs 0 Sep 11 22:20 typescript

wolf:~\$ chmod 765 fruits

wolf:~\$ ls -l

total 20

-rw----- 1 mgbarsky instrs 72 May 30 13:49 C:\nppdf32Log\debuglog.txt

drwx----- 2 mgbarsky instrs 4096 May 19 15:21 Desktop

-rw----- 2 mgbarsky instrs 0 Sep 11 22:09 bar

drwx----- 4 mgbarsky instrs 4096 Sep 9 21:27 csc209

-rw----- 2 mgbarsky instrs 0 Sep 11 22:09 foo

drwxrw-r-x 6 mgbarsky instrs 4096 Sep 11 22:59 fruits

-rwxr-x--x 1 mgbarsky instrs 9 Apr 18 15:06 index.html

-rw----- 1 mgbarsky instrs 0 Sep 11 22:20 typescript

#=====

Exploring file contents

#=====

wolf:~\$ cd csc209/w1

wolf:~/csc209/w1\$ todos A

wolf:~/csc209/w1\$ file A

A: ASCII text, with CRLF line terminators

wolf:~/csc209/w1\$ fromdos A

```
wolf:~/csc209/w1$ file A
A: ASCII text
wolf:~/csc209/w1$ file B
B: ASCII text, with CRLF line terminators
wolf:~/csc209/w1$ fromdos B
wolf:~/csc209/w1$ file B
B: ASCII text
```

```
wolf:~/csc209/w1$ cat months
January
February
March
April
May
June
July
August
September
October
November
December
```

```
wolf:~/csc209/w1$ info coreutils 'head invocation'
#type q to quit info or man pages
```

```
wolf:~/csc209/w1$ head months.txt
January
February
March
April
May
June
July
August
September
October
```

```
wolf:~/csc209/w1$ tail -4 months
September
October
November
December
```

```
wolf:~/csc209/w1$ cat days
Monday
Tuesday
Wednesday
Thursday
```

Friday
Saturday
Sunday

```
wolf:~/csc209/w1$ sort days
```

Friday
Monday
Saturday
Sunday
Thursday
Tuesday
Wednesday

```
wolf:~/csc209/w1$ echo -e "red\nblue\ngreen\nyellow\norange" > colors.1
```

```
wolf:~/csc209/w1$ cat colors.1
```

red
blue
green
yellow
orange

```
wolf:~/csc209/w1$ echo -e "red\ngreen\nyellow\npink\npurple">colors.2
```

```
wolf:~/csc209/w1$ cat colors.2
```

red
green
yellow
pink
purple

```
wolf:~/csc209/w1$ diff -u colors1.1 colors.2
```

```
--- colors.1 2016-09-11 23:47:18.000000000 -0400  
+++ colors.2 2016-09-11 23:49:09.000000000 -0400  
@@ -1,5 +1,5 @@
```

```
red  
-blue  
green  
yellow  
-orange  
+pink  
+purple
```

```
wolf:~/csc209/w1$ comm --help
```

```
Usage: comm [OPTION]... FILE1 FILE2
```

```
Compare sorted files FILE1 and FILE2 line by line.
```

With no options, produce three-column output. Column one contains lines unique to FILE1, column two contains lines unique to FILE2,

and column three contains lines common to both files.

- 1 suppress column 1 (lines unique to FILE1)
 - 2 suppress column 2 (lines unique to FILE2)
 - 3 suppress column 3 (lines that appear in both files)
-
- check-order check that the input is correctly sorted, even if all input lines are pairable
 - nocheck-order do not check that the input is correctly sorted
 - output-delimiter=STR separate columns with STR
 - help display this help and exit
 - version output version information and exit

Note, comparisons honor the rules specified by 'LC_COLLATE'.

Examples:

- comm -12 file1 file2 Print only lines present in both file1 and file2.
- comm -3 file1 file2 Print lines in file1 not in file2, and vice versa.

```
wolf:~/csc209/w1$ sort colors.1 > colors.3  
wolf:~/csc209/w1$ sort colors.2 > colors.4
```

```
wolf:~/csc209/w1$ comm colors.3 colors.4  
blue  
    green  
orange  
    pink  
    purple  
    red  
    yellow
```

```
wolf:~/csc209/w1$ comm -1 colors.3 colors.4  
green  
pink  
purple  
red  
yellow
```

```
wolf:~/csc209/w1$ comm -3 colors.3 colors.4  
blue  
orange  
    pink  
    purple
```

```
wolf:~/csc209/w1$ cat faculty faculty > double
```

```
wolf:~/csc209/w1$ sort double > sorted
```

```
wolf:~/csc209/w1$ cat sorted
```

```
Campbell, Jen  
Campbell, Jen  
Craig, Michelle  
Craig, Michelle  
Engels, Steve  
Engels, Steve  
Gries, Paul  
Gries, Paul  
Liu, David  
Liu, David  
Pitt, Francois  
Pitt, Francois  
Reid, Karen  
Reid, Karen
```

```
wolf:~/csc209/w1$ uniq sorted > single
```

```
wolf:~/csc209/w1$ cat single
```

```
Campbell, Jen  
Craig, Michelle  
Engels, Steve  
Gries, Paul  
Liu, David  
Pitt, Francois  
Reid, Karen
```

```
wolf:~/csc209/w1$ grep -i craig faculty
```

```
Craig, Michelle  
Craig, Mike  
Craigleith, Jim  
O'Neil, Craig
```

```
wolf:~/csc209/w1$ grep -w -i craig faculty
```

```
Craig, Michelle  
Craig, Mike  
O'Neil, Craig
```

```
wolf:~/csc209/w1$ cat B
```

```
11
```

```
1
```

```
12
```

```
3
```

```
2wolf:~/csc209/w1$ grep 1 B
```

```
11
```

```
1
```

```
12
```

```
wolf:~/csc209/w1$ grep -w 1 B  
1
```

```
wolf:~/csc209/w1$ exit  
exit
```

Script done on Mon Sep 12 01:02:38 2016