UW CSE 160 Section

April 2, 2015

About me about you

Now it’s time to team up!

- Find partners! Group can be 2-4 people.

- Try to share as much as possible about what you think with your teammates!

During Section

- Create an empty text file and save everything about what you try and what you get.
- You can also include your name and your teammate's name in the file.
- Email this text file to TA after class if you still feel doubt about any part of the section.

Command Lines Intro

- Command Prompt in Windows (cmd)
- Terminal in Mac/Linux

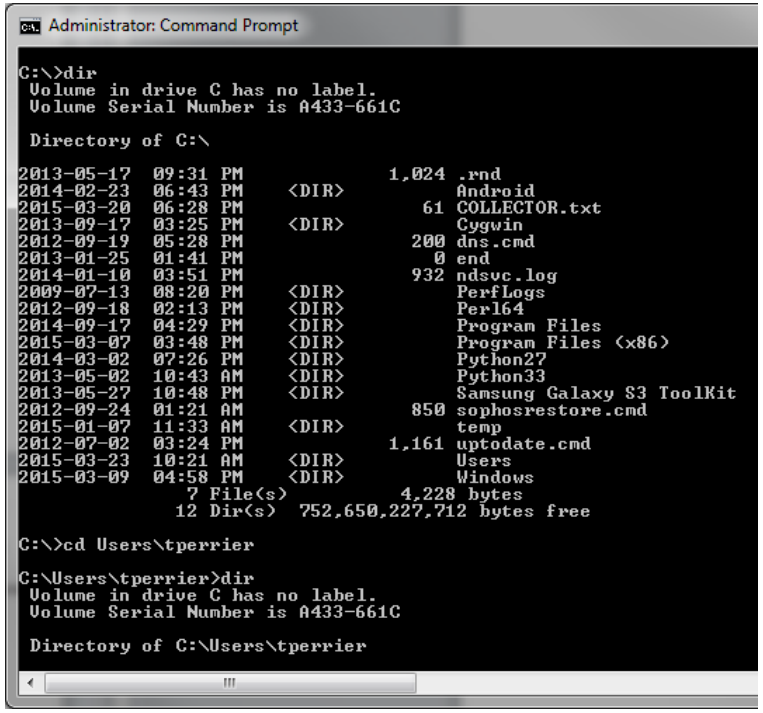
Command Lines Objectives

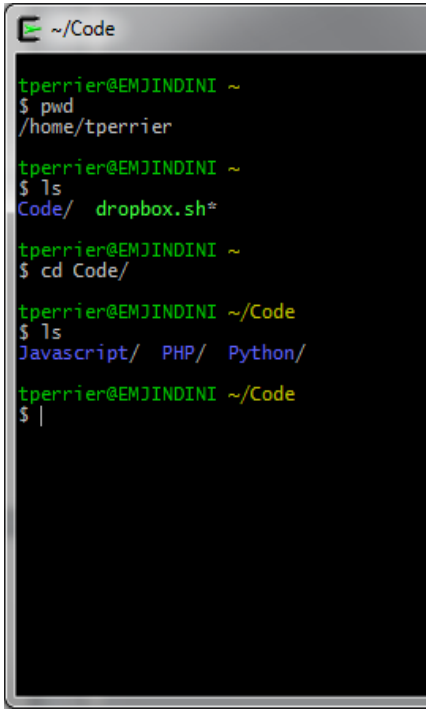
- Navigating file system
- Run Python (interactive and programs)

Command Line Basics

- Show current directory/folder
  - pwd (on unix, linux, osx)
  - echo %cd% (on windows)
- List contents in the current directory/folder
  - ls (on unix, linux, osx)
  - dir (mostly only on windows)
- / on unix, linux, osx
- \ on windows

- Change directory
  - cd (Use “tab” to loop through path!)
- Make directory
  - mkdir (on linux, osx)
  - md (on windows)


Administrator: Command Prompt
C:\>dir
Volume in drive C has no label.
Volume Serial Number is A433-661C
Directory of C:\
2013-05-17 09:31 PM 1,024 .rnd
2014-02-23 06:43 PM <DIR> Android
2015-03-20 06:28 PM 61 COLLECTOR.txt
2013-09-17 03:25 PM <DIR> Cygwin
2012-09-19 05:28 PM 200 dns.cmd
2013-01-25 01:41 PM 0 end
2014-01-10 03:51 PM 932 ndsvc.log
2009-07-13 08:20 PM <DIR> PerfLogs
2012-09-18 02:13 PM <DIR> Perl64
2014-09-17 04:29 PM <DIR> Program Files
2015-03-07 03:48 PM <DIR> Program Files (x86)
2014-03-02 07:26 PM <DIR> Python27
2013-05-02 10:43 AM <DIR> Python33
2013-05-27 10:48 PM <DIR> Samsung Galaxy S3 ToolKit
2012-09-24 01:21 AM 850 sophosrestore.cmd
2015-01-07 11:33 AM <DIR> temp
2012-07-02 03:24 PM 1,161 uptodate.cmd
2015-03-23 10:21 AM <DIR> Users
2015-03-09 04:58 PM <DIR> Windows
7 File(s) 4,228 bytes
12 Dir(s) 752,650,227,712 bytes free
C:\>cd Users\tperrier
C:\Users\tperrier>dir
Volume in drive C has no label.
Volume Serial Number is A433-661C
Directory of C:\Users\tperrier


~/Code
tperrier@EMJINDINI ~
$ pwd
/home/tperrier
tperrier@EMJINDINI ~
$ ls
Code/ dropbox.sh*
tperrier@EMJINDINI ~
$ cd Code/
tperrier@EMJINDINI ~/Code
$ ls
Javascript/ PHP/ Python/
tperrier@EMJINDINI ~/Code
$

Python with command line

- Using the interpreter
  - python
  - How to exit: exit() ctr-D
- Using script
  - python myprogram.py
  - python myprogram.py *argument1 argument2*
- The operating system command shell/prompt is *not* the same as the Python interpreter

Exercise: Print a table

- Careful about the conversion between number and string

- Use str(some number)

Loop Basics

- Use loop to reduce code repetition!
- For loop:

```
for iterating_var in sequence:
    statements(s)
```

```
for x in [0,1,2,3,4,5,6,7,8,9]:
    print( x**2+x)
```

Careful!

- Don’t forget colon
- Careful about the indentation

Range Basics

- The built-in range() function can be used to quickly create sequential lists.

range(start,stop[,step])

  - range(10)
    - [0,1,2,3,4,5,6,7,8,9]
  - range(0,10,2)
    - [0,2,4,6,8]
  - range(10,0,-2)
    - [10,8,6,4,2]

Exercise: Handout

- Equivalent corresponding

Today’s takeaway

- Command line environment
- Print
- Range
- Loop

Exercise: Create a log table using loop

- Numbers:

  1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800, 1000

- Import

  - To not reinvent the wheel!

  - Use the console to check usage quickly!