Canopy Tour and Python Intro Notes

Package Manager – more included with Education version than Express

Installation issues

Installs in Local User Profile by default

Canopy environment installs on first run

System-wide install help here:

<https://support.enthought.com/hc/en-us/articles/204469200-Understanding-a-Canopy-system-wide-installation-common-install->

Editor Window – used for writing code

iPython window – used for direct input into kernel and for monitoring output, similar to a command prompt or terminal

Working directory – always have students switch working directory to editor directory

Logging:

%logstart -ort LogfileName.txt append

This adds to a log file that has been already started and makes it easy to read because it is straight text file

You do not need to start logging at the beginning of the session, as long as you start the log before the end of the session it will record everything

If you restart the kernel, you need to restart logging

No need to stop logging (unless you want to stop logging)

Another way to save the log is to right-click and save as HTML

Shortcuts:

Restarting kernel (Ctrl + .)

Running file (Ctrl + R)

from \_\_future\_\_ import print\_function

In Python 2.7 there is no built in print function, just a print statement – no parenthesis are used when using print

Python 3 has a print function, which is more pythonic

Difference between Return vs print

Return will be able to pass a value back into the kernel when executing a function

Print only outputs into the iPython session

Example in the food\_id test case

Functions

Defining functions

Doc strings

Calling

Arguments/variables

Up arrow to recall input in iPython

Tab to complete

Int vs long:

Int max value in Python 2.7 is 2,147,483,647, or the maximum signed 32 bit number (2^31, the first bit is used for the sign) Hex value is 7FFFFFFF. 2,147,483,647 + 1 will make it a long data type in Python.

Fun anecdote, from a YouTube Google+ post: <https://plus.google.com/u/0/wm/4/+youtube/posts/BUXfdWqu86Q>

<http://edition.cnn.com/2014/12/03/showbiz/gangnam-style-youtube/index.html?hpt=hp_t4>