

# Lab 0: Python IO

September 7th 2017

In this lab you will use the marvelous internets to dip your toes into some Python. Your goal is to get a basic grasp of IO in Python. The code you write today can be reused in most of your future lab assignments. Turn this assignment in by midnight on Wednesday, 9/13.

## Step 1

We will be using Python 3.5 (or higher) for all assignments. You need to figure out how to:

- Check which version of python is currently installed on your machine.
- If you do not have Python 3.5 or higher installed, install it.
- Run the included HelloWorld.py (it should throw an error if you have an earlier Python version).

## Step 2

Write a program {your last name}\_Lab0.py that can read the input file flip.txt and write its content into a new file, flop.txt.

## Step 3

Modify the above code so that the input from flip.txt is reversed by character and then reversed by word on a new line when it is written out to flop.txt. Based on the given flip.txt, flop.txt should look like:

```
.nuf os si ssalc sihT
fun. so is class This
```

## Step 4

Install the Python nltk module and numpy module. Import the nltk module into your program and add a third line of output that lists the number of words in Jane Austen's Emma. A demo of how to do this can be found in Chapter 2 of your nltk book. Your output should be:

```
.nuf os si ssalc sihT
fun. so is class This
192427
```

## Step 5

As you can see, the nltk module includes a number of books that can be used for various types of analytics. What other corpora are included in the module. What other books or texts are available online? Do you have a Twitter account? What would it take to download all of your tweets for the past couple years? The point here is: you're going to be asked to do a final project at the end of the semester. If you know what types of corpora are generally available, you can have constructive thoughts about the analytics that we cover over the next eight weeks and come up with a final project idea that is both interesting and feasible.

What you don't want to do is to set your heart on a particular project, only to find that the corpus or text that you'd need is totally unavailable. This would be sad.

## Step 6

Conduct your life. Pay attention to what you're saying. Make note of two different expressions or wordings that you use for which the literal meaning in no way corresponds to the meaning you intended. Have your program print out these expressions as lines 4 and 5. Your final output should be:

```
.nuf os si ssalc sihT
fun. so is class This
192427
He won by the skin of his teeth.
To all skeet skeet god damn.
```

## Step 7

Turn it in. (Duh)