

# Exercise c1

Carey Pridgen

January 17, 2017

## 1 Beginning Concurrency

### 1.1 First Exercise

- This first exercise is to give you some practice setting up and using concurrency in Python.

### 1.2 Importing Threads

- We start with just thread creation, so import that functionality

```
from threading import Thread
```

- Write a simple function that takes an int and prints it, then launch two threads using it, passing a different number to each thread.

```
t = Thread(target=function, args=(num,))  
t.start()  
t.join()
```

### 1.3 Second Exercise

- use `wget` to fetch this file [http://www.politespider.com/370ct/caged\\_bird.txt](http://www.politespider.com/370ct/caged_bird.txt)
- Write a python program that loads the file contents (Caged Bird by Maya Angelou) and stores each line in an array.

### 1.4 Third Exercise

- In the main function, declare an index var `pos`, we will use it in each thread, so in the function for each thread, declare that you want the global instance.

```
global pos
```

- Set `pos` in the function that will print the output line by line, with a delay of `.3` seconds between each line printing.

```
for x in range(0, len(poem)):
    pos = x
    time.sleep(.3)
```

- Instead of the more usual iterator approach, and use `pos` to fetch the array element to display.

## 1.5

- Now, write another function that will iterate through the same array in another for loop.
- Only this one will just set the global `pos`, not use it.
- Here, set a delay of `.2`.

```
global pos
for y in range(0, len(poem)):
    pos = y
    time.sleep(.2)
```

- Run this thread in your program too, what does it do to your poem printing?