CS-UY 1114: Lab 10

File I/O and Exception Handling

You must get checked out by your lab CA **prior to leaving early.** If you leave without being checked out, you will receive 0 credits for the lab.

Restrictions

The Python structures that you use in this lab should be restricted to those you have learned in lecture so far. Please check with your teaching assistants in case you are unsure whether something is or is not allowed!

Create a new python file for each of the following problems.

Your files should be named *lab[num]_q[num].py* **similar to homework naming conventions.**

Note: This lab has this portion on files and a practice exam.

Problem 1: *Files files files*

Part A: *Consecutive Numbers*

Write a function named `consecutive_numbers` with two parameters, `filename` and `n`, that should write all the consecutive integers from 1 to n into a file (given by filename) in the format of exactly one integer on each line.

```
def consecutive_numbers(filename, n):
```

For example, a call to consecutive_numbers('numbers.txt', 5) would generate a text file named `numbers.txt` in the following format:

```
1
2
3
4
5
```

Here is a main function you can use to test.

```
def main():
    consecutive_numbers("numbers.txt", 5)
```

Part B: *Square Them*

In a **new file**, write a function named `squared_numbers` with two parameters, `filename and outFile`, that should read from a file (given by filename) that has exactly one integer on each line, and write to another file outFile the squared of those integers. This written file should be in the same format of one integer per line.

You should use the file that you created in `Part A` to test your code. Make sure to check that it exists first!

```
def squared_numbers(filename, outFile):
```

For example, a call to `square_numbers('numbers.txt', 'num_squared.txt')` would generate a text file named `num_squared.txt` with the following contents:

```
1
4
9
16
25
```

Here is a main function you can use to test.

```
def main():
    squared_numbers("numbers.txt", "squaredNumbers.txt")
```