CS 1110, LAB 4: ASSIGNMENT 1

First Name: _____ **Last Name**: _____ **NetID**: _____

Today's lab is an open office hour to work on Assignment 1. Take advantage of it to get whatever last minute help that you might need. If you have finished Assignment 1, we have an optional exercise for you to work on (see below). However, that is not required.

Because many students often wait to the last minute, we expect the lab staff to be fairly busy during this lab. If you feel that you are being ignored (e.g. you have held your hand up for several minutes with no one recognizing you), we recommend that you approach one of the course staff and ask about "getting a place in line".

0.1. **Getting Credit for the Lab.** Because you are working on the assignment, you will receive full credit for this lab if you turn in the assignment on time (e.g. Wednesday before midnight). There is nothing else to show to you instructor. You do not even need to swipe your card to get credit for this lab.

If you wish, you can show the optional exercise to the instructor. However, that is not required. If you do decide to show it to the instructor, we recommend that you wait until next week; the lab staff will be very busy today.

1. TIME FORMATS (OPTIONAL)

This exercise involves string slicing, which you should be an expert on after Assignment 1. In additional it requires conditionals, which we introduced last week. This exercise is a really good opportunity to get some more practice with Python. In addition, the functions in this exercise are roughly at the level of difficulty that we will expect from you on the first exam.

There is a file called `lab04.py` that is available for download from the Labs section of the course web page. This module file contains headers and specifications for a bunch of functions for you to write. Write the bodies of as many of them as you can. Since this is an optional exercise, there is no requirement for the number that you have to implement. Your instructor is willing to look at as few or as many as you complete.

The functions in this module change a time strings into different format. There are three different formats used by the module `lab04.py`:

24-hour time	The string format is `'<hours>:<minutes>'` where <hours> is between 0 and 23 and <minutes> is between 0 and 59. Both <hours> and <minutes> are two digits and so should be padded with leading zeros when necessary. **Examples**: `'04:20'`, `'13:00'`, `'23:59'`, `'00:00'` This time format is called *military time* in North America.
12-hour time	The format is `'<hours>:<minutes> AM'` or `'<hours>:<minutes> PM'`, where <hours> is between 0 and 11 and <minutes> is between 0 and 59. There is a space before `'AM'` or `'PM'`, and both should be capitalized. **Examples**: `'4:20 AM'`, `'1:00 PM'`, `'11:59 PM'`, `'12:00 AM'` This time format is called *standard time* in North America.
Verbose time	This time format is military time, with the hours and minutes spelled out. **Example**: "1 hour and 20 minutes". **Example**: "14 hours and 1 minute" **Example**: "23 hours and 59 minutes" **Example**: "0 hours and 0 minutes" Numbers are not padded, so they may be one or two digits. In addition, the wording is grammatically correct; the number 1 is always singular while all other numbers (including 0) are plural.

Read the specifications in `lab04.py` for more information.