CS 100 Lab One – Spring 2019

Create a directory called **lab1** on your machine using **mkdir lab1** and move into that directory with **cd lab1**

Complete the following programs. For each program, prompt the user for the inputs needed by the program.

1. Name this program **quiz.c** – For CS100, there are 11 quizzes, but the lowest quiz score will be droped. The final quiz score is the average of the remaining 10 scores. This program prompts the user for 11 quiz scores (integers from 0 through 10), and then computes and prints the average (double) of the 10 remaining scores after the lowest one is dropped. You can assume that the input entered will always be valid.

   Entering **0 1 2 3 4 5 6 7 8 9 10** gives an average score of **5.500000**
   Entering **9 7 8 10 10 3 5 7 8 3 9** gives an average score of **7.600000**

2. Name this program **day.c** – This program prompts the user for a month and a day in Year 2019. For example, entering the values **9** and **2** represents September 2, and it is day **245** for 2019. **Your program should print out the day-of-the-year for this date, in the format shown below.** For this task, you can assume the user will always enter two valid integers – the first is the month and the second the day. Check your answers at http://mistupid.com/calendar/dayofyear.htm if you want.

Input: 8 21	**Output: 8 21 is August 21, 2019, day 233 of the year**
Input: 3 8	**Output: 3 8 is March 8, 2019, day 67 of the year**
Input 12 25	**Output: 12 25 is December 25, 2019, day 359 of the year**

3. Name this program **ncb.c** – The program is to implement the ninja-cowboy-bear game that is similar to the rock-paper-scissors game. The game rules are ninja kicks/beats cowboy, cowboy shoots/beats bear, and bear mauls/beats ninja. Please see http://www.ninja-cowboy-bear.com/docs/play-ncb.pdf if you want more information. The program prompts the user for a move from player one and a move from player two, and prints out one of the following messages: **Player one wins**, **Player two wins** or **The game is a tie**. You can assume that the user will always enter exactly one of the following three words, **ninja**, **cowboy** or **bear** for each player's move.

Submit your lab

First, on your local machine, compress your **lab1** directory into a single (compressed) file, i.e. **lab1.zip**. To do this:
- PC: Using Windows Explorer, right click on the **lab1** directory and select "Send To" and then select "Compressed (zipped) folder."
- Mac: Using Finder, use a secondary click on the **lab1** directory and then select "Compress **lab1**."

Please make sure lab1.zip contains the lab1 directory as well as quiz.c, day.c and ncb.c under it.

Second, once you have a compressed file named **lab1.zip**, submit that file to Blackboard.