

## CS115 INTRODUCTION TO COMPUTER PROGRAMMING

### Programming project #4

#### INTRODUCTION

The goal of this programming assignment is to enable the student to practice programming using lists.

#### PROBLEM DEFINITION:

The Springfork Amateur Gold Club has a tournament every weekend. The club president has asked you to write a Python program that reads names of golfers and their scores using keyboard input and saves them to two lists respectively. The program then prints a report by going through the information in the lists.

The program will have three functions that do the following:

- A **main()** function that creates two empty lists of golferNames and scores. It then calls the other two functions, the input and display functions, passing the lists as parameters. The call to the input function should be on the right of an assignment so that the returned value is the number of golfers. The call to the display function should be on the right of an assignment so that the returned value is the winner (one with lowest score). Tasks are:
  1. Define lists
  2. Call input golfers information function
  3. Call display golfers tournament report function
  4. Display winner out of number\_of\_golfers golfers

The message will be:

```
Winner is xxxxxxxxxx with score xxx out of nnn golfers.
```

- An **inputInfo()** function has a loop. Inside the loop are statements to input golfer name and score from the keyboard for one golfer and append them to the golferNames and scores lists respectively. Make sure to validate score input to ensure it is an integer not string. The loop repeats so as to read information for multiple golfers until a user enters 'n' in response to a prompt. Here is a suggested algorithm:
  1. Display "Are there any golfer cards to input? (y/n) "
  2. Read response from keyboard
  3. Repeat until response is not equal to 'n'
    - a. Read golfer name from the keyboard
    - b. Read golfer score from the keyboard
    - c. Append golfer name to golferNames list
    - d. Append golfer score to scores list
    - e. Add 1 to golfersCount
    - f. Display "Do you have more golfers to enter? (y/n) "
    - g. Read response from keyboard
  4. Return number of golfers