MSBA 605 – Programming for Analytics

IN-CLASS EXERCISE # 4

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Logistics

A. Get into your regular team

B. Discuss and complete the assignment together. Don't just assign different problems to each teammate! That defeats the purpose of team-based learning.

C. Choose a recorder to prepare the final copy to submit to instructor in Blackboard. Only one person needs to submit on behalf of the team.

Due: Friday, September 14 by 11:59 PM

Problem 1

Write a Python code fragment to sum all entered integers until the user enters a negative number, then display the sum. Use a **while** loop to solve.
. [You can copy and paste from Python prompt in Thonny, Spyder, etc. The point is to try it out.] (7 pts.)

```
x = True
accum = 0
print("Sum all the numbers, until there is a negative number")

while x:
   y = int(input("Enter a number: "))
   if (y >= 0):
      accum = accum + y
   else:
         x = False
         print(accum)
```

Problem 2

Write a Python code fragment that emulates a virtual digital clock by output the times (hour:minute) from 1:00 PM to 4:59 PM using nested **for** loops. Each "time" should be on a line by itself, as below. [You can copy and paste from Python prompt in Thonny, Spyder, etc. The point is to try it out.] (8 pts.)

Output:

```
1:00 PM
1:01 PM
1:02 PM
…
1:59 PM
```

```
2:00 PM
…
4:58 PM
4:59 PM
```

```
def clock():
    for i in range(1,5):
        for j in range (0,60):
            print("%2d:%2.2d" % (i,j), "PM")
        print()
clock()
```

Problem 3

Write a Python program to read the `rainfall.txt` file (from textbook, attached in Blackboard) and print a formatted report to the screen. Format each line of output so that the city is right-justified in a column that is 25 characters wide followed by a space and the rainfall amount is printed next in a column that is 5 characters wide with 1 digit of precision to the right of the decimal point. Don't forget to close the file after you're finished reading it! [You can copy and paste from Python prompt in Thonny, Spyder, etc. The point is to try it out.] (10 pts.)

```
rainfile = open("C:/Users/Brian/Documents/University of Louisville Classes/MSBA 605/Second Edition Test Programs/Chapter5/rainfall.txt","r")

for line in rainfile:
    strf = line.split()
    print("%+25s %5.1f" % (strf[0], float(strf[1])))

rainfile.close()
```