# CTI 110

# M5HW2: Running Total

# Introduction

Over the course of several assignments, you will build a Python program that meets the following business need: “Calculate a student’s average based on several test grades, and print their number grade and letter grade.” (You’ve already done some of this work, because you wrote a program to convert a number grade to a letter grade in a previous module.)

Let’s put this larger goal aside for now, and just concentrate on our current problem: using a loop to find a running total of a series of numbers. However, you will need to remember how to calculate a running total to complete those later problems.

# Assignment

Write a program that asks the user to enter a series of numbers. It should loop, adding these numbers to a running total, until the user enters a negative number. When a negative number is entered, the program should exit the loop. (It should not add the negative number to the total.) The program should then print the total before exiting.

Here is an example program run. (The user’s entries, after the “?”, are listed in **bold**.)

Enter a number? **80**

Enter a number? **100**

Enter a number? **0**

Enter a number? **90**

Enter a number? **-1**

Total: 270

>>>

# Tips

You will need to declare a variable to store the running total (the total of all values entered so far.) This variable is sometimes called an **accumulator**. You might name the variable something like total or runningTotal .

This program uses a conditional loop, meaning it should loop until the user enters a negative number. You must use a while loop to implement a conditional loop; a for loop can’t do the job because we don’t know ahead of time how many times the loop will run.

Remember not to add any negative value to the running total! In this program, any negative number is used as a **sentinel value,** which is a value the user enters to exit the loop.

When a sample program run is provided, you should try to make your program’s output look as similar as possible to the output provided.

# Submitting M5HW2

Use the usual naming convention and comment block, and submit your Python source file in Blackboard.