# Lab: Files

## Background

Text files can be used to read data into your program or to write data generated/updated by your program.

## Instructions

Use Python IDE to create a solution for the scenario presented in each question.

Lab questions are designed to assess your comprehension of the course materials covered in this unit, therefore questions should be solved using **only** the information provided in the course materials up to the end of Unit 3-2. Use of materials outside of this will result in 0 on the lab question.

## Lab Scenario

Gifts have started to arrive for Bo and Krista’s upcoming nuptials. They want to keep track of the gifts as they arrive and use the information later to write thank-you notes. You have been given a text file with a few of the gifts that have already arrived.

File: *wedding\_gifts.txt* (in Brightspace)   
Tab delimited file with the following data fields: gift from, gift type, cash amount, gift description

Use functions (at least a main()) for both questions.

#### Gift Report Program

Bo and Krista want to keep track of how many gifts are received and the total cash amount.

Write a program that reads in a file of gift information, counts the number of gifts in the file and accumulates the total cash gifts and prints a summary as shown below.

Sample Run: (no input)

Received 6 gifts including cash of $1,550.00

1. **Gift Registry Program**

Use the same file as the previous question. Write a second program that allows Bo and Krista to add new gifts to their registry as they arrive. The program should continue to run as long as the answer to the question “Another gift? (Y/N): “ is ‘Y’.

Prompt for gift from and gift type. Valid gift types are ‘Cash’, ‘Gift’, or ‘Both’. Depending upon the gift type, prompt for cash amount, gift description or both. See the sample run below for more details.

For each gift entered, write a line to the gifts file that is formatted correctly (i.e. exactly the same as the original lines of data).

Sample Run: (user input in bold underline)

Gift Registry

Another gift? (Y/N): **y**

Who is this gift from: **James K.**

Enter gift type (Cash, Gift, Both): **gift**

Enter description of gift: **pottery chip/dip platter**

Another gift? (Y/N): **Y**

Who is this gift from: **Uncle Fred and Janine**

Enter gift type (Cash, Gift, Both): **cash**

Enter amount of cash gift: **65**

Another gift? (Y/N): **y**

Who is this gift from: **Auntie Em**

Enter gift type (Cash, Gift, Both): **Both**

Enter amount of cash gift: **200**

Enter description of gift: **$50 gift card for Earl's**

Another gift? (Y/N): **N**

File successfully written

Once you have added all the new gift information, simply run your first program (Gift Report) again to make sure that it works correctly on the updated file.

Received 9 gifts including cash of $1,815.00

**Submission**

Please submit the following to the Brightspace submission folder for this lab assignment:

1. Gift Report program – 2 files: Your **Python source code** (.py file) and your **test results** (.txt file containing program output from the Terminal Window)
2. Gift Registry program – 3 files: Your **Python source code** (.py file), your **test results** (.txt file containing program output from the Terminal Window), and a copy of the **wedding\_gifts.txt data file** AFTER running your Gift Registry program through the test plan one time.