**CS 2060 Programming with C - Fall 2017**

**Assignment #9**

Due Date: Nov 8, 2017 at 9:25am (MW class), Nov 9, 2017 at 9:25am (TR class)

Purpose: Learn about files, arrays, and pointers.

Effort: Individual

Points: 100

Deliverables: Upload the .c source code file to Blackboard by due date.

Please include pseudocode in the comments at the beginning of your code.

**Please hand in a hardcopy version of your code at beginning of class.**

**Assignment Description**

In assignment #8 we created a design for the following:

Assume there is a company with an online presence. Each day all customer visits to the company’s website are recorded in a daily log file. Each entry in the daily log file contains a customer ID, with one entry per line. A customer may visit the website several times on one day, each visit will create an entry in the log file. Given two daily log files, for different days, produce a list of the customers who visited the website on both days. The list should be written to a new file containing the IDs of those returning customers. It should contain no duplicate customer IDs

For assignment #9, update your design to find the repeat customers given ***THREE*** daily log files. Implement the updated design to create a new file for customers that visited the site on 3 given days.

**Specifications**

1. Create a C project called **Assignment9 (please use this exact name)**
2. Follow "CS2060 Programming Assignments Policy"
3. Details:
   1. 3 log files with customer IDs for 3 different days will be provided on Blackboard
   2. The number of customers on any given day varies but the max is set to 100
   3. Repeat customers file
      1. Name this file - RepeatCustomers.txt
      2. Write this file to your C drive (or equivalent on a MAC)
      3. Contains customer ids for **ONLY** those customers that visited site on all 3 days
4. Write code that:
   1. Does **NOT** use global variables; you can and **SHOULD** use global constants.
   2. Uses **pointers** in function parameters lists instead of arrays.
      1. In assignment 6, the parameter lists contained arrays such as:

**void** **populateSectionWithFileData** (**int** section[5][10]);

For this assignment, use pointers in your parameter lists. For example:

**void** **writeCustomerList** (**int** \* **const** customerList)

* 1. All function parameters must be properly defined to enforce the ***principle of least privilege*** (see section 7.5). This means, if the function cannot modify the array it must be defined as const, for example:

**void** **writeCustomerList** (**int** \* **const** customerList)

**Output**

The output of your program will be a new file. Given the three files on Blackboard, the contents of the repeat customers file will be the customers that visited the site on all three days:

**RepeatCustomers.txt contents**

33333

44444

11111

22222