Program Logic Using C++
CSC 5 #43620
Spring 2014
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Last Name (PRINT)

First Name (PRINT)

Date

Project #4 – Parallel Arrays

Write a program that will first receive as input the name of an input file and an output file. It will then read in a list of names, id #s, and balances from the input file specified (call it *InFile.txt*) which you will create from the data provided below. The program will then prompt the user for a name to search for, when it finds the name it will output to a file (call it *OFile.txt*) the person's id#, name, and balance. Please see the next page for the expected format of your output file. The program should prompt for another name until the word "done" is entered. Calculate and output the average of all balances for the found names.

Finally, create a header file for all your preprocessor directives, prototypes and constants as discussed in class. NOTE: For this assignment do not make the array size a GLOBAL constant, pass it as a parameter as necessary.

Your program will need the following functions:

1 – **print heading function** – prints your heading to *OFile.txt*.
2 – **input function** - that will propagate the arrays (reads in all the data) – you will need 3 parallel arrays for this assignment (one for the names, one for the ids and one for the balances). This function should read all the data from *InFile.txt*.
3 – **search function**- this function will search for the name and return the proper index (of type int) to the calling function.

Turn in

1. The FIRST PAGE of this assignment as a coversheet.
2. Screen I/O – pasted into a text file.
3. Output file.
4. Your header file.
5. A listing of main.cpp (conforming to style discussed in class).
6. A listing of your input / output and search functions.
7. A listing of your print heading function (should be in a separate file).
8. Input file.

TEST INPUT – Test each one of these cases!

Search for the following input in this order:
Steve Woolston
Jacques Rousseau
Chris Carroll
Pete McBride
Jean Rousseau
Florence Cyr
Done

Screen Input/Output should be formatted as follows:

Note: Below are the input/output for the **first two test cases and the last test case**. ALL test cases should be formatted as follows.


```
What input file would you like to use?  InFile.txt
What output file would you like to use? OFile.txt

Who do you want to search for (enter done to exit): Steve Woolston
Found.

Who do you want to search for (enter done to exit): Jacques Rousseau
Jacques Rousseau was not found.
```

... Also search for the following names here. Continue to format the I/O as described above.
Chris Carroll
Pete McBride
Jean Rousseau
Florence Cyr
... The following should be your last input.

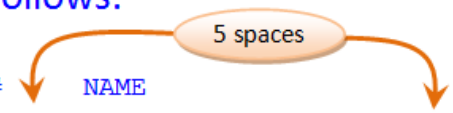
```
Who do you want to search for (enter done to exit): done

Thank you for using my program.
```

Input File: (your input file should look exactly as follows)

```
Jean Rousseau
1001 15.50
Steve Woolston
1002 1423.20
Michele Rousseau
1005 52.75
Pete McBride
1007 500.32
Florence Rousseau
1010 1323.338
Lisa Covi
1009 332.356
Don McBride
1003 12.32
Chris Carroll
1008 32.356
Yolanda Agredano
1004 356.00
Sally Sleeper
1006 32.362
```

Output File: should include all of the names that were found (not just these) in the order in which they were found. They should be formatted as follows.




```
ID #     NAME                 BALANCE DUE
----     -------------------  -----------
1002     Steve Woolston       $   1423.20
1008     Chris Carroll        $     32.36
…

            Average Balance Due: $    492.84
```