

ECE 370

Fall 2020

Assigned 9/9/2020

Due 9/18/2020

Programming Assignment 1 (and Prerequisite Test)

Your program reads in from a text file a list of persons, display their information, add new persons, and search for persons. The information of each person consists of:

Last_Name, First_Name (30 chars, max)

ID (int)

Address (50 chars, max)

Your program will open a file *a1.txt* and read one person's info at a time, and you may assume the entries in the file are all in correct forms.

Each person's information is in sequence, as **name, ID, address**.

You can assume the maximum number of people in a1.txt and later on the ones added on is 20

1. Read from a1.txt the information. Each person should take one structure. The structure should be defined as to hold name, ID, and address.
2. Your program prints the information of all people according the **ID** numbers in *ascending* order. The information (**name, ID, address**) should be identical to the information your program read from *a1.txt* (see sample a1.txt as in the same folder of this assignment; you need to follow the same formatting as defined in a1.txt)
3. Your program then asks the user if there is additional person to add. If so, the fields of information on this new person are with the same format as in a1.txt, in sequence of **name, ID, address**, and your program asks the user to enter one entry at a time. Your program should continue to ask if additional person is to be added, and the user decides whether or not to add a new one.
4. After 3, your program asks the user to search for a person by *last name*. The user will enter the name and your program should print out the information: **name, ID, address**, in sequence and one line per field (e.g. name takes one line). Your program should continuously ask the user if to search a new person, and stop only if the user chooses so. If there are two or more people with identical last name, each of them should be listed. Your program **prints out** the information immediately after the person is found.
5. After 4, your program should have a function to print out all people who are "searched and found", in the order of first searched and first printed. The standard printed (on screen) information consists: **name, ID , address**, in sequence and one line per field, similar to that in a1.txt

Check the sample file for conforming the format, and test if your program works.