

Project 1

Due: May 7

Implement a program that will manage a several contact books of different people, using the classes that you developed in homework assignments 2-6. The program should be command-line interfaced.

Modify your contact book class in the following way:

- 1) Your add contact function will now add a contact in a sorted order
- 2) Your delete contact function will preserve the sorted order of the contacts
- 3) Provide a private sort function which will sort the contact list internally
- 4) Provide a merge function that will merge the second contact list into the first

Your main program will store up to 5 contact books read from a file. You will never have more than 5 contact books in your project. The main program should start by reading the file **contactbooks.txt** to create contact book objects dynamically and store them as pointers in an array of capacity 5. The format of the file will be:

```
Owner-first-name|Owner-last-name  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
endofbook|
```

```
Owner-first-name|Owner-last-name  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
endofbook|
```

```
Owner-first-name|Owner-last-name  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
first-name|last-name|phone|email|home|street|apt|city|state|zip  
endofbook|
```

The program will have a menu with the following options:

- 1) create a new contact book (note: you will only be able to create up to five contact books. If you attempt to create more, the program should report an error)
- 2) remove a contact book (identified by owner's name)
- 3) display all contact books (in your system)
- 4) merge two contact books (both books are identified by owner's name)
- 5) select a contact book (identified by owner's name) to perform following operations:
 - a) add new contact

- b) delete old contact
- c) display contact info
- d) update contact info
- e) display entire contact book
- 6) Exit

Note: When you start the program the contact books must be read in from a file called **contactbooks.txt**. When you exit a program the contact books must be stored back to a file called **contactbooks.txt**. Internally in your program contact books are stored in an array of capacity 5.