

Assignment #4: Contacts List App

The Problem

You are to adapt the code that you developed in Assignment 3 to produce an interface that reads the myContactsList.db file and displays it and allows for a number of actions.

The record that you wrote to myContactsList.db has the following structure:

```
struct contact {  
    unsigned long phone_number;  
    long first_name_posn;  
    long last_name_posn;  
    long company_name_posn;  
    long email_posn;  
    long next;  
};
```

Changes to the original Assignment 3 code:

- You must enter either a Last Name or a Company Name for each contact (as well as the phone number and email).
- You must check that the phone number has either 7 or 10 digits.
- The email address must have the following format: string@string.ccc

Your interface will allow the following to be done:

1. List all contacts in alphabetical (ascending) order by name (either last name or company name) – only displaying the name. Only 5 names will be displayed at a time. You can tell the interface to scroll down or up one name at a time.
2. Add a new contact.
3. Allow one of the contacts to be selected (by the number beside it on the display).
4. Display the full information for the selected contact.
5. Change the phone number or email for a selected contact.
6. Delete a selected contact.
7. Return to the full contacts list.
8. Exit the program (all changes to the myContactsList.db file must be written to disk).

Interface

The “full contacts list” interface is as follows:

Number of Contacts = 20

A

1. Aberfoyle Mill
2. Air Canada
3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café

Action:

The action inputs are the following:

+	Move down one name
-	Move up one name
Number	Select this contact and display its full information
A	Add a new contact
X	Exit the program

The following pages will introduce the three different interfaces

1. Full Contacts List
2. Contact Information – Display
3. Contact Information – Edit and Add

Full Contacts List

Number of Contacts = 20

A

1. Aberfoyle Mill
2. Air Canada
3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café

Action: +

Number of Contacts = 20

A

2. Air Canada
3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café
6. Ivy Breezie

Action: +

Number of Contacts = 20

A

3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café
6. Ivy Breezie

C

7. Barbara Catena

Action: -

Number of Contacts = 20

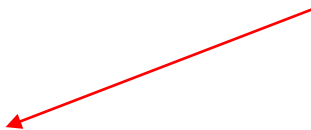
A

2. Air Canada
3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café
6. Ivy Breezie

Action: 5



Contact Information – Display

Contact #5

First Name:

Last Name:

Company Name: Bombay Cafe

Phone Number: 5198373899

Email: bcafe@gmail.com

Action: **E**

R	Return to the Full Contacts List interface
E	Edit this contact
D	Delete this contact and return to Full Contacts List

Contact Information – Edit and Add

Contact #5

First Name:

Last Name:

Company Name: Bombay Cafe

Phone Number (enter only numbers): 5198362788

Email: bombaycafe@gmail.com

Action: **S**

R	Return to the Full Contacts List interface (do not update contact record)
S	Save this contact and return to Full Contacts List
D	Delete this contact and return to Full Contacts List

R	Return to the Full Contacts List interface (do not update contact record)
S	Save this contact and return to Full Contacts List

Number of Contacts = 20

A

2. Air Canada
3. Jason Argonaut

B

4. Terry Bernard
5. Bombay Café
6. Ivy Breezie

Action: **A**

Number of Contacts = 21

A

2. Air Canada
3. Jason Argonaut

B

4. Peg Balashata
5. Terry Bernardo
6. Bombay Cafe

Action: **X**

Contact #8

First Name: Peg

Last Name: Balasheta

Company Name:

Phone Number (enter only numbers): 6733860

Email: peg@balasheta.org

Action: **S**