

➤ **USER MANUAL:**

When the user starts to open the program, a welcome message will appear, followed by a menu of several commands to choose the one he wants to perform.

The commands will be in this form

- 1) LOAD CONTACTS FROM A FILE
- 2) QUERY - SEARCH FOR A CONTACT
- 3) ADD A CONTACT
- 4) DELETE CONTACTS
- 5) MODIFY A CONTACT
- 6) PRINT CONTACTS SORTED
- 7) SAVE YOUR CHANGES
- 8) QUIT FROM PROGRAM

If the user enters a letter, a number followed by letter or a number which doesn't exist in the list; a warning message will appear.

- ✓ At the first the user should load the file to enable the program to execute his orders; so if he enters any number other than "1", a warning message will appear to tell him to load the file first.

When he presses "1" he will be asked to enter the file name in a specialized form "filename.txt".

If there is no file with the entered name a warning message will appear asking for a valid file name.

Else, the file will be successfully loaded and he can choose any other command from the list.

If he presses "2":

Then he should enter the last name of the contact he wants to search for.

If he enters a name which isn't in the file a message will tell him that there is no contact with that last name and the program will take him back to the main menu.

Else, the contacts with that last name will appear, then when he presses 'enter' he will back to main menu to choose another command.

If he presses “3”:

He should enter the data of the contact in the following order:

- I.** LAST NAME
- II.** FIRST NAME
- III.** DATE OF BIRTH: it should be in a form of (DD-MM-YYY) in case of entering invalid date a warning message will appear with these instructions: the year should be in range of (1806-2021) the month should be in range of (1-12) and the days (1-31) and the user should be careful of leap years & months with only 30 days.
- IV.** ADDRESS
- V.** PHONE NUMBER: this entry has 2 options either international phone number or local phone number, the user should enter “1” or “2” or an error message will appear to tell him to enter a valid number from the list.
If he chooses “1” → he should enter only digits or an error message will appear.
If he chooses “2” → the user should only enter 9 digits if landline and 11 digit if mobile, which should start with (010\011\012\015) and all digits should be numbers.
- VI.** EMAIL: this should be in this form example@domain.com if it is written in any other method, this warning message will appear “Don't start with '-', '#', or '!' + Prefix & domain, each consists of at least 1 char + server (SA com) consists of at least 2”.
Or the user can write no email if the contact doesn't have an e-mail.

Then the new contact will be successfully added to the phonebook and the user should press enter to back to the main menu.

If he presses “4”:

He should enter the last and the first name of the contact he wants to delete.

If he enters a name which doesn't exist in the file a warning message will tell him that there is no contacts with this name and he will directly back to the main menu.

Else, the program will show the user all the contacts with the same first and last name, and then it will ask him for a confirmation to delete all these contacts.

If the user presses “1” the deletion will be confirmed, else the deletion will be canceled.

Then the user will back to menu.

If he presses “5”:

He should enter the last name of the contact he wants to modify which should exist in the file or a warning message will appear.

Then the program will show the user all the contacts with the same last name to choose the desired contact. If he doesn't want to modify any of those, he should choose any contact then choose "done modifying" without editing any record.

After choosing the contact, the information about it will be displayed and he should choose the field he wants to modify.

Last name, First name, Date of birth, Address, Phone number or E-mail.

The user should enter a valid number from the list or a warning message will be displayed.

He can modify all of them if he wants.

In case of modifying the date of birth: it should be in a form of (DD-MM-YYY) in case of entering invalid date a warning message will appear with these instructions: the year should be in range of (1806-2021) the month should be in range (1-12) and the days (1-31) and the user should be careful of leap years & months with only 30 days.

In case of modifying the phone number: this entry has 2 options either international phone number or local phone number, the user should enter "1" or "2" or an error message will appear to tell him to enter a valid number from the list.

If he chooses "1" → he should enter only digits or an error message will appear.

If he chooses "2" → the user should only enter 9 digits if landline and 11 digit if mobile, which should start with (010\011\012\015) and all digits should be numbers.

In case of modifying the e-mail: this should be in this form example@domain.com if it is written in any other method, this warning message will appear "Don't start with '-', '#', or '!' + Prefix & domain, each consists of at least 1 char + server (SA com) consists of at least 2".

Or the user can write no email if the contact doesn't have an e-mail.

Then after modifying, the user should press "7" to save the modifications.

Then he will back automatically to the main menu.

If he presses "6":

The user has 2 options either sort the contacts according to "LAST NAME" or "DATE OF BIRTH".

He has to press "1" or "2" or an error message will appear.

❖ If he presses “1”:

All the contacts will be displayed sorted according to the last name from A-Z, if there are 2 contacts or more have the same last name they will be sorted according to the first name also from A-Z.

Then the user should press enter to back to the main menu.

❖ If he presses “2”:

All the contacts will be displayed sorted according to the date of birth, at first the contacts will be sorted according to the year where they were born, if there are 2 contacts or more were born in the same year then, they will be sorted according to the months, and if they were born in the same month, they will be sorted according to the days.

Then the user should press enter to back to the main menu.

If he presses “7”:

Then all the operations the user did will be saved.

If he presses “8”:

In this case if he presses “8” after choosing “7” then a ‘**good bye**’ message will be displayed and the program will be ended.

Else if he chooses “8” without doing any operations, then the program will also be ended directly.

But if the user did operations and didn’t save them then he pressed “8” a warning message would be displayed to warn him that he didn’t save his new modifications, and then a list with 3 choices would appear in the following order →

1. SAVE AND QUIT
2. QUIT WITHOUT SAVING
3. CANCEL (BACK TO MENU)

In case he chooses “1”: then the program will save the changes and quit.

In case he chooses “2”: then the program will not save the changes and quit.

In case he chooses “3”: then the program will take the user back to the main menu again.

