Name: Mahmoud Salah Elshafei
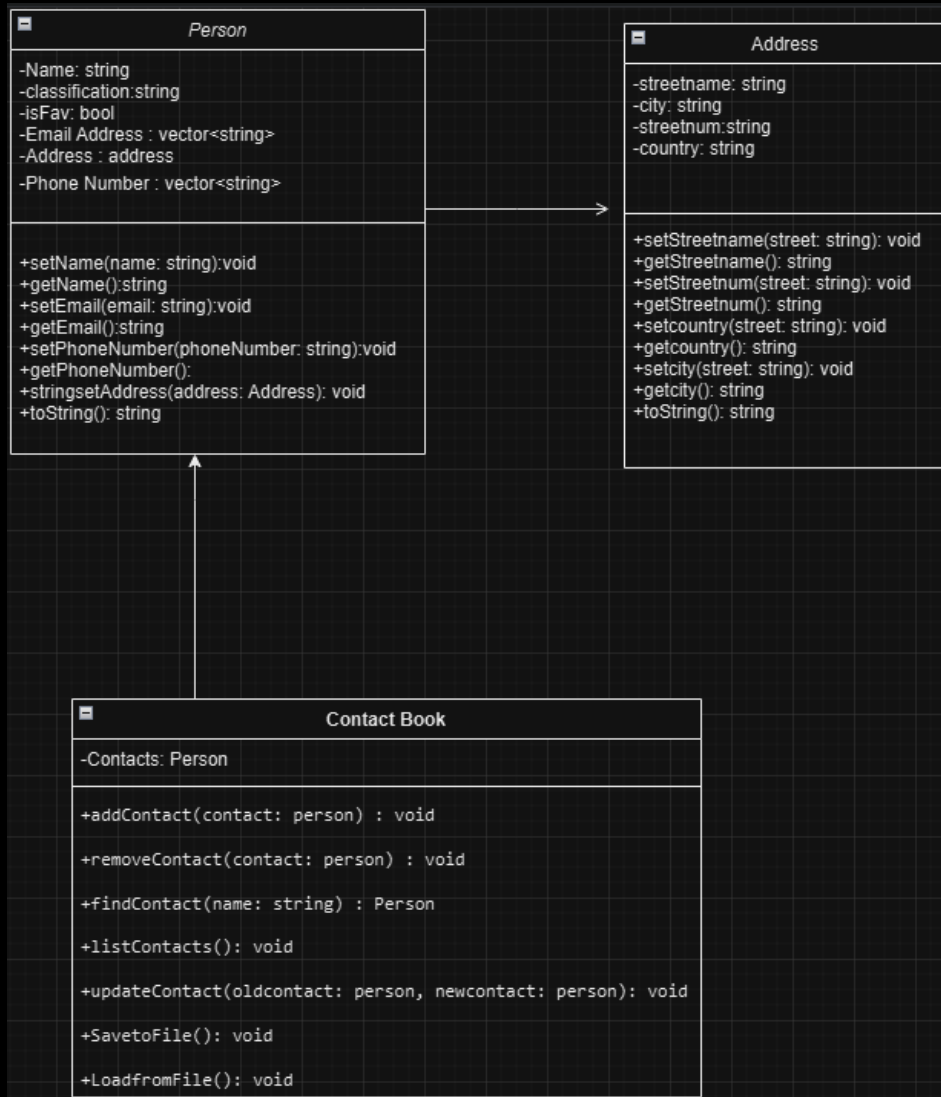*Section: 21*

Project details
#1 Main page

```
Welcome to our Contact Book App
===============================
    Contacts Book Menu:
-------------------------------
1. Add a new Contact
2. Delete Contact
3. Search Contact
4. Print All Contacts
5. Print Favourite Contacts
6. Update Contact Information
7. The number of contacts
8. Sort contacts book
9. Remove contacts book
10. Reverse contacts book
11. Save contacts book
12. Load contacts book
13. Exit
===============================
Enter your choice: |
```

→ At the start of the program the project has no data, you have the option to add a data or import it from a file.
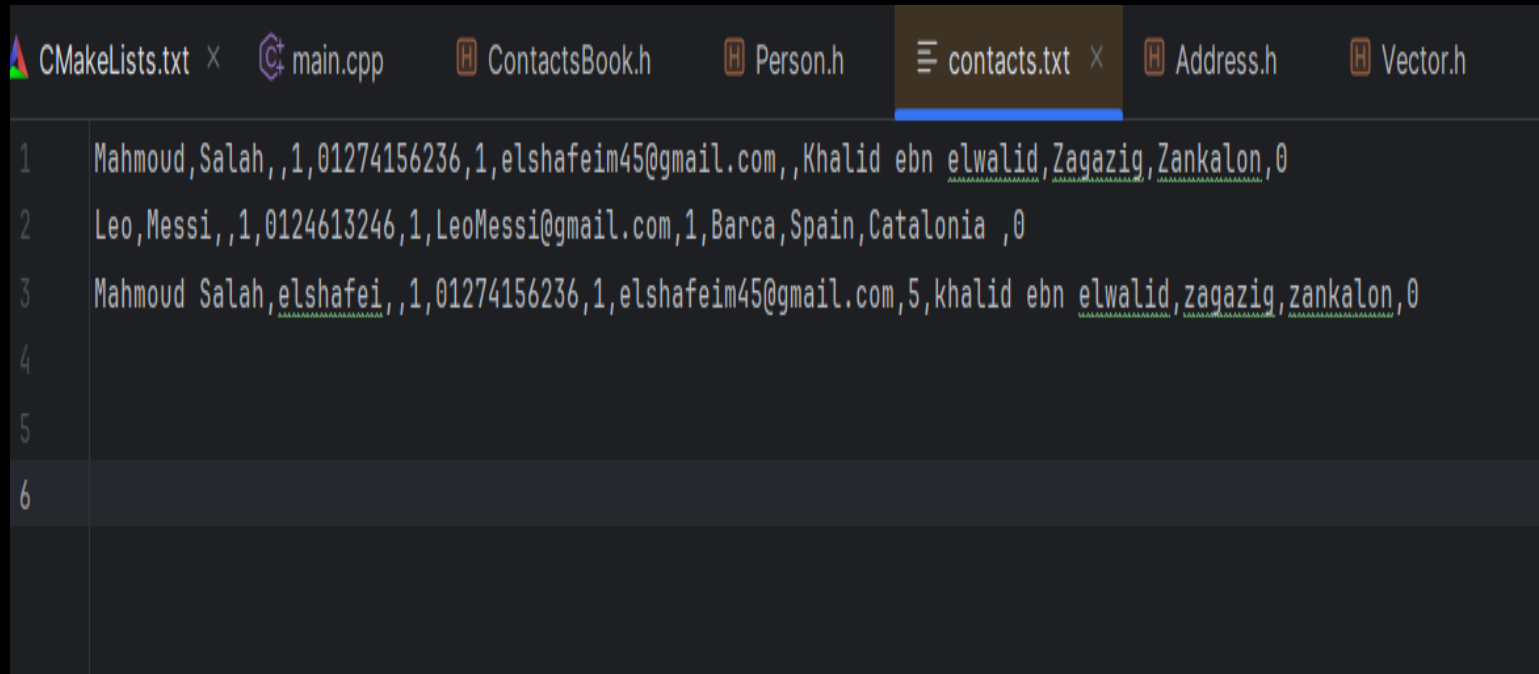
#2 Add a new Contact
We can add a new contact using option 1 from the menu

```
Enter your choice: 1
Enter the contact information:
Enter the first name: Mahmoud
Enter the last name: Salah
Enter Classification (Family, Friend, Work, Other): Family
How many phone numbers: 2
[1] Enter phone number: 01274156236
[2] Enter phone number: 01013769261
How many emails: 2
[1] Enter email: elshafeim45@gmail.com
[2] Enter email: mahmoudelshafei302@yahoo.com
Favorite contact? [1] Yes [2] No: 1
Enter the address:
Enter the street number: 5
Enter the street name: Khalid ebn elwalid
Enter the country: Zankalon
Enter the city: Zagazig
This contact added successfully..
```

→ We can add a new contact by selecting option 1.

#3 Save to files
we can save the data to the file

→ These are the Saved contacts

| CMakeLists.txt | main.cpp | ContactsBook.h | Person.h | contacts.txt | Address.h | Vector.h |

```
1   Mahmoud,Salah,,1,01274156236,1,elshafeim45@gmail.com,,Khalid ebn elwalid,Zagazig,Zankalon,0
2   Leo,Messi,,1,0124613246,1,LeoMessi@gmail.com,1,Barca,Spain,Catalonia ,0
3   Mahmoud Salah,elshafei,,1,01274156236,1,elshafeim45@gmail.com,5,khalid ebn elwalid,zagazig,zankalon,0
4
5
6
```

#4 Load from file

```
===============================
       Contacts Book Menu:
-------------------------------
1. Add a new Contact
2. Delete Contact
3. Search Contact
4. Print All Contacts
5. Print Favourite Contacts
6. Update Contact Information
7. The number of contacts
8. Sort contacts book
9. Remove contacts book
10. Reverse contacts book
11. Save contacts book
12. Load contacts book
13. Exit
===============================
Enter your choice: 12
6 Contacts loaded successfully!

===============================
```

#5 Print all Contacts

```
Enter your choice: 4
```

First Name	Last Name	City	Country	Street Number	Street Name	Phone Number	Classification
Mahmoud	Salah	Zagazig	Zankalon		Khalid ebn elwalid	01274156236	
Leo	Messi	Spain	Catalonia	1	Barca	0124613246	
Mahmoud Salah	elshafei	zagazig	zankalon	5	khalid ebn elwalid	01274156236	

#6 Search for a Contact

→ We Can search by

→ 1- First Name

→ 2- Last Name

→ 3- Full Name

→ 4- Phone Number

→ 5- Classification

```
                    --------------------------------
Enter your choice: 3
How do you to search the contact ?
1- Search by first name
2- Search by last name
3- Search by full name
4- Search by phone number
5- Search by classification
1
Enter The contact: Mahmoud
First Name:         Mahmoud
Last Name:          Salah
Class:
Numbers:            01274156236
Emails:             elshafeim45@gmail.com
Address:            , Khalid ebn elwalid, Zagazig, Zankalon
                    ============================
```

#7 Sort the Contacts
We can sort the contacts in Lexicographical order

```
Enter your choice: 4
┌Öû─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────┌Öû
|First Name      | Last Name      | City           | Country        | Street Number  | Street Name      | Phone Number    | Classification    |
┌åò─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────┌åò
|Leo             | Messi          | Spain          | Catalonia      | 1              | Barca            | 0124613246      |                   |
┌åò─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────┌åò
|Mahmoud         | Salah          | Zagazig        | Zankalon       |                | Khalid ebn elwalid| 01274156236     |                   |
┌åò─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────┌åò
|Mahmoud Salah   | elshafei       | zagazig        | zankalon       | 5              | khalid ebn elwalid| 01274156236     |                   |
┌Öû─────────────────────────────────────────────────────────────────────────────────────────────────────────────────────┌Öû
                  ─────────────────────────
```

#8 Reverse the Contacts
We can reverse the contacts order

```
Enter your choice: 4
┌─────────────────────────────────────────────────────────────────────────────────┐
|First Name     | Last Name  | City      | Country    | Street Number | Street Name    | Phone Number | Classification |
├─────────────────────────────────────────────────────────────────────────────────┤
|Mahmoud Salah  | elshafei   | zagazig   | zankalon   | 5             | khalid ebn elwalid| 01274156236 |                |
├─────────────────────────────────────────────────────────────────────────────────┤
|Mahmoud        | Salah      | Zagazig   | Zankalon   |               | Khalid ebn elwalid| 01274156236 |                |
├─────────────────────────────────────────────────────────────────────────────────┤
|Leo            | Messi      | Spain     | Catalonia  | 1             | Barca          | 0124613246   |                |
└─────────────────────────────────────────────────────────────────────────────────┘
```

#9 Update Contact info
We can edit a contact info

→ Enter the data, if we need
to skip a field without
editing, just press Enter.

```
Enter your choice: 6
Enter the old contact information:
Enter the contact information:
Enter the first name: Mahmoud
Enter the last name: Salah
Enter Classification (Family, Friend, Work, Other): Family
How many phone numbers: 1
[1] Enter phone number: 01274156236
How many emails: 1
[1] Enter email: elshafeim45@gmail.com
Favorite contact? [1] Yes [2] No: 1
Enter the address:
Enter the street number: 5
Enter the street name:
Enter the country:
Enter the city:
Enter the new contact information:
Enter the contact information:
Enter the first name: 7ooda
Enter the last name: ShaFeiii
Enter Classification (Family, Friend, Work, Other): Friend
How many phone numbers: 0
How many emails: 0
Favorite contact? [1] Yes [2] No: 1
Enter the address:
Enter the street number:
Enter the street name:
Enter the country:
Enter the city:
This contact updated Successfully..
```

#10 Exit the App

Select option 13

```
Enter your choice:13
 13
Waiting for you next time <3 ..
```