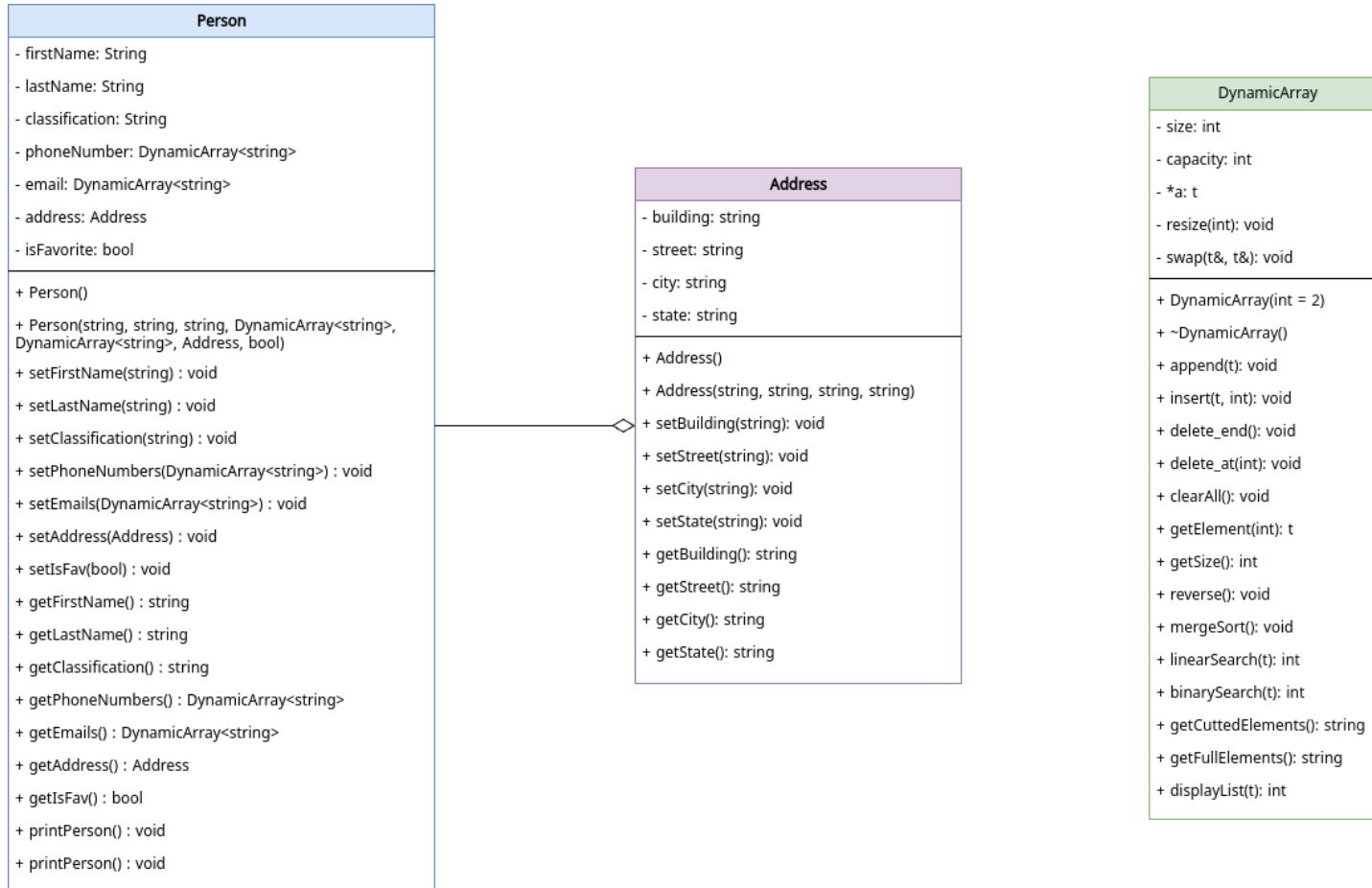


Contact Book Project

Ramez Medhat

Project UML:



Project Details:

1# Main Page

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

```
+-----+
                        Ramez's Contact Book: 0 Contacts
+-----+
| i | FirstName | LastName | Class   | Favorite | Phone Numbers | Emails | Address |
+-----+
No Elements Have Been Added Yet! Try Adding a one or loading them from a file.
+-----+
Options:
[1] Add a new contact
[2] Update contact Information
[3] Delete a contact
[4] Sort by name
[5] Reverse contact book
[6] Search by name
[7] Filter by classification
[8] Print favorite contacts
[9] Share contact
[10] Save to file
[11] Load from file
[12] Exit
+-----+
Select option: |
```

You can also see the different options for the program, If we pressed entered option 11, It will load the data from a file named "contacts.txt"

2# Loading from a file

This is the result of loading the data from a file

```
+-----+
                                     Ramez's Contact Book: 4 Contacts
+-----+
| i | FirstName | LastName | Class   | Favorite | Phone Numbers       | Emails                | Address                |
+-----+
| 0 | Ramez      | Medhat   | Friend  | Yes      | 01553631073         | iramezdev@gmail.com   | 12, asd, faqous, Egypt |
| 1 | Jana       | Malek    | Family  | Yes      | 01234567891, ...    | a@gmail.com           | 31, qwe, London, UK    |
| 2 | Gambo1     | Waterson | Work    | No       | 123123123           | b@gmail.com           | 15, asdq, qwesd, asdqwe |
| 3 | Harry      | Potter   | Work    | No       | 123132, ...         | h@gmail.com, ...      | 213, jhk, cvb, dfgwer   |
+-----+
Options:
[1] Add a new contact
[2] Update contact Information
[3] Delete a contact
[4] Sort by name
[5] Reverse contact book
[6] Search by name
[7] Filter by classification
[8] Print favorite contacts
[9] Share contact
[10] Save to file
[11] Load from file
[12] Exit
+-----+
Select option: |
```

3# Saving to a file

At any point of the program we can save the data in the same file, this is the resulting file

```
main.cpp | contacts.txt x | Person.h | Address.h | DynamicArray.h | PrintingContactBook.h | ContactBookOperations.h
1 | Ramez | Medhat | Friend | 1 | 01553631073 | 1 | iramezdev@gmail.com | 12 | asd | fagous | Egypt | 1
2 | Jana | Malek | Family | 2 | 01234567891,09876543211 | 1 | a@gmail.com | 31 | qwe | London | UK | 1
3 | Gambol | Waterson | Work | 1 | 123123123 | 1 | b@gmail.com | 15 | asdq | qwesd | asdqwe | 0
4 | Harry | Potter | Work | 2 | 123132,123123 | 2 | h@gmail.com,p@gmail.com | 213 | jhk | cvb | dfgwer | 0
5 |
```

4# Adding new contacts

We can add a new contact by selecting option 1, and typing the data one by one.

```
+-----+
Select option: 1
Enter First Name: Candy
Enter Last Name: Star
Enter Classification (Family, Friend, Work, Other): Friend
Enter Number of Phone Numbers: 2
[1]Enter phone number: 01234567891
[2]Enter phone number: 01234567899
Enter Number of Emails: 1
[1]Enter email: candy@gmail.com
Enter Building: 31
Enter Street: Candy
Enter City: Oreo
Enter State: Chocolate
Favorite? [1] Yes [2]No : 1

Added Successfully!

+-----+
Ramez's Contact Book: 5 Contacts
+-----+
| i | FirstName | LastName | Class | Favorite | Phone Numbers | Emails | Address |
+-----+
| 0 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 1 | Jana | Malek | Family | Yes | 01234567891, ... | a@gmail.com | 31, qwe, London, UK |
| 2 | Gambo1 | Waterson | Work | No | 123123123 | b@gmail.com | 15, asdq, qwesd, asdqwe |
| 3 | Harry | Potter | Work | No | 123132, ... | h@gmail.com, ... | 213, jhk, cvb, dfgwer |
| 4 | Candy | Star | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```

5# Editing Contact

We can edit a contact by selecting option 2, and typing the data one by one, if there's a field we don't want to edit we don't type anything and just hit enter.

```
[12] Exit
+-----+
Select option: 2
Enter index to Edit: 4
For each value press enter to skip or write a value to edit then press enter.
Enter First Name:
Enter Last Name: Moon
Enter Classification (Family, Friend, Work, Other):
Enter Number of Phone Numbers:
Enter Number of Emails:
Enter Building:
Enter Street:
Enter City:
Enter State:
Favorite? [1] Yes [2]No :

Updated Successfully!

+-----+
Ramez's Contact Book: 5 Contacts
+-----+
| i | FirstName | LastName | Class | Favorite | Phone Numbers | Emails | Address |
+-----+
| 0 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 1 | Jana | Malek | Family | Yes | 01234567891, ... | a@gmail.com | 31, qwe, London, UK |
| 2 | Gambo1 | Waterson | Work | No | 123123123 | b@gmail.com | 15, asdq, qwesd, asdqwe |
| 3 | Harry | Potter | Work | No | 123132, ... | h@gmail.com, ... | 213, jhk, cvb, dfgwer |
| 4 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```

Here we edited the second name only from "Star" to "Moon".

6# Deleting Contact

We can delete a contact by selecting option 3, and type the index of the contact.

```
+-----+
Select option: 3
Enter index to delete: 1

Deleted Successfully!

+-----+
Ramez's Contact Book: 4 Contacts
+-----+
| i | FirstName | LastName | Class | Favorite | Phone Numbers | Emails | Address |
+-----+
| 0 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 1 | Gambol | Waterson | Work | No | 123123123 | b@gmail.com | 15, asdq, qwesd, asdqe |
| 2 | Harry | Potter | Work | No | 123132, ... | h@gmail.com, ... | 213, jhk, cvb, dfgwer |
| 3 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```

7# Sorting

We can sort the contacts by name, select option 4

```
+-----+
Select option: 4
+-----+

Ramez's Contact Book: 4 Contacts
+-----+
| i | FirstName | LastName | Class | Favorite | Phone Numbers | Emails | Address |
+-----+
| 0 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
| 1 | Gambol | Waterson | Work | No | 123123123 | b@gmail.com | 15, asdq, qwesd, asdqwe |
| 2 | Harry | Potter | Work | No | 123132, ... | h@gmail.com, ... | 213, jhk, cvb, dfgwer |
| 3 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
+-----+
```

8# Reversing

We can reverse the contacts order, select option 5

```
+-----+
Select option: 5
+-----+

Ramez's Contact Book: 4 Contacts
+-----+
| i | FirstName | LastName | Class | Favorite | Phone Numbers | Emails | Address |
+-----+
| 0 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 1 | Harry | Potter | Work | No | 123132, ... | h@gmail.com, ... | 213, jhk, cvb, dfgwer |
| 2 | Gambol | Waterson | Work | No | 123123123 | b@gmail.com | 15, asdq, qwesd, asdqwe |
| 3 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```


9# Search

We can search in the contact book by name, select option 6 and enter the first and last name of the contact.

```
+-----+
Select option: 6
Enter First and Last Name: Ramez Medhat
Result:
+-----+
First Name:  Ramez
Last Name:   Medhat
Class:       Friend
Favorite:    Yes
Numbers:     01553631073,
Emails:      iramezdev@gmail.com,
Address:     12, asd, faqous, Egypt
+-----+
```

If no such name found, this is the result:

```
+-----+
Select option: 6
Enter First and Last Name: Nobody Here
No such Person found!
```

9# Filter by Classification

We can filter the contacts by classification, select option 7 and enter the classification filter, a list will show for you like this:

```
+-----+
Select option: 7
Enter Classificaton to Filter: Friend
Result:
+-----+
| 1 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 2 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```

9# Print favorite contacts

We can print only the favorite contacts, select option 7.

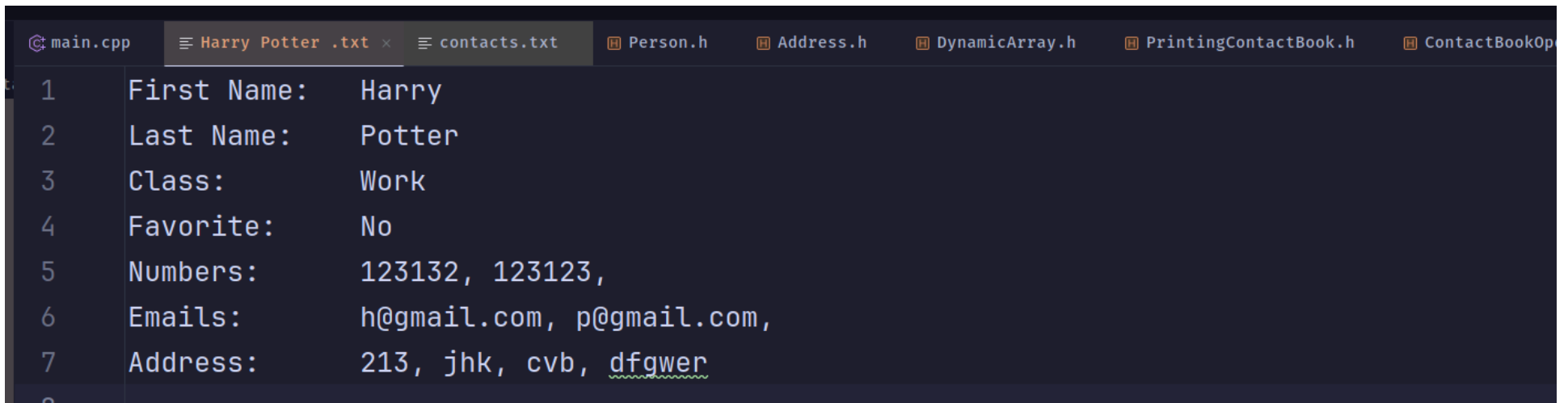
```
+-----+
Select option: 8
Result:
+-----+
| 1 | Ramez | Medhat | Friend | Yes | 01553631073 | iramezdev@gmail.com | 12, asd, faqous, Egypt |
| 2 | Candy | Moon | Friend | Yes | 01234567891, ... | candy@gmail.com | 31, Candy, Oreo, Chocolate |
+-----+
```

9# Share a contact

If you selected option 8 and then entered the index of a contact, It will save the contact details in a file so you can share this file easily.

```
+-----+
Select option: 9
Enter contact index to share: 1
Contact Saved Succesfully, File name: Harry Potter .txt
```

The file looks like this:



The screenshot shows a code editor with a tab for 'Harry Potter .txt'. The file contains the following text:

```
1 First Name: Harry
2 Last Name: Potter
3 Class: Work
4 Favorite: No
5 Numbers: 123132, 123123,
6 Emails: h@gmail.com, p@gmail.com,
7 Address: 213, jhk, cvb, dfgwer
```

10# END :)

Select option 12 to exit the program.

```
+-----  
Select option: 12  
+-----  
This project was made with love by "Ramez Medhat"  
Thank you for using it.  
+-----
```

Thank you for caring ✨🪐