AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING *i-CREDIT HOURS ENGINEERING*
PROGRAMS
COMMUNICATION SYSTEM ENGINEERING PROGRAM

Project Title:

Phone Book Program

Project Team:

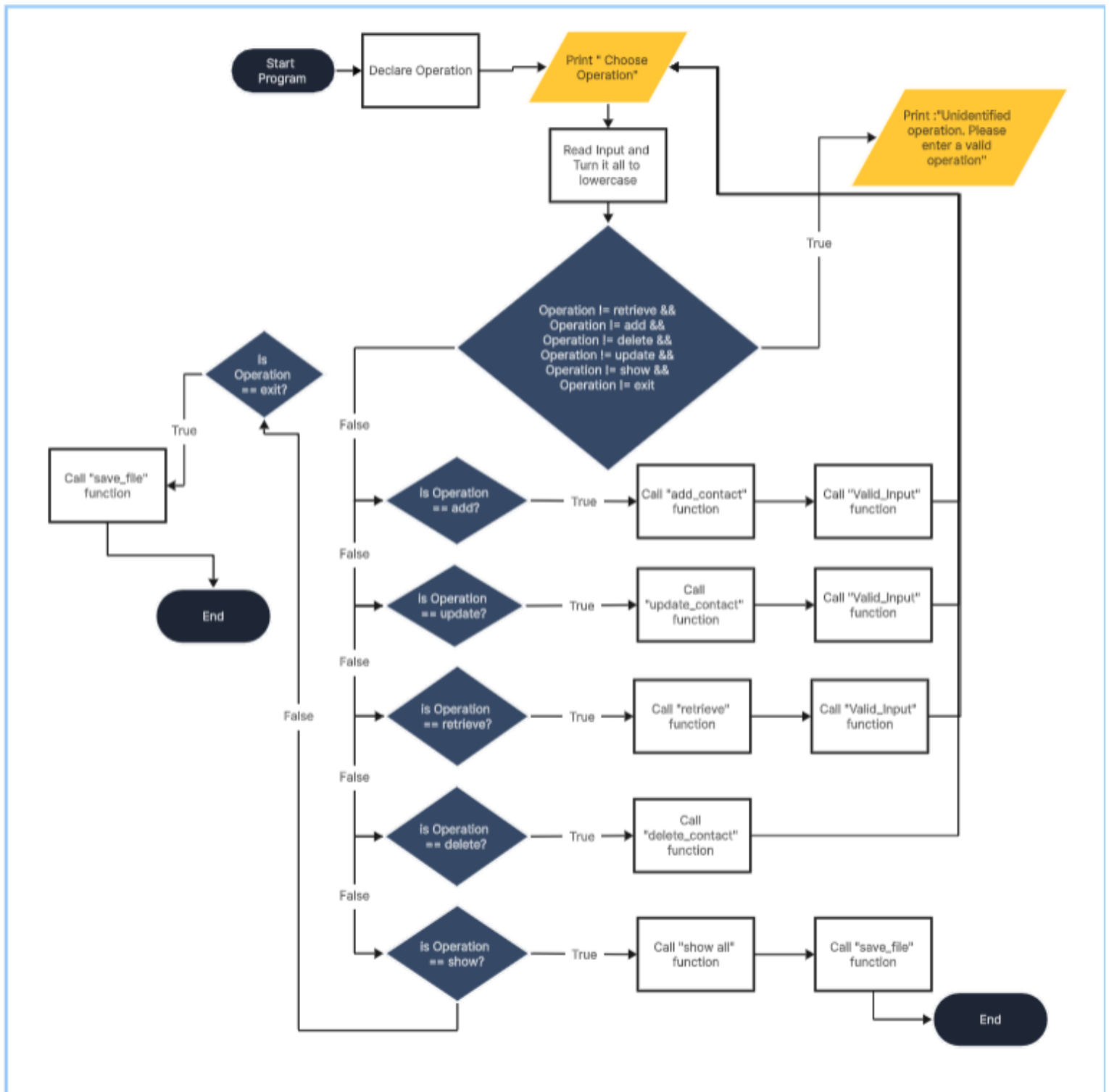|	Name	ID	Contribution
1	Alaa Mostafa	23p0331	Delete, Flowchart
2	Abdullah Mohamed	23P0238	Show all.
3	Ahmed Belal	23P0007	Add.
4	Omar Ahmed	23P0369	Retrieve.
5	Yasser Gamal	23P0361	Update.
6	Ahmed Sherif	23P0414	Save file, Main body.

Project Abstract:
This program's purpose is to be able to use the basics of C++ to concoct a program that acts as a phonebook displaying the splendid features of adding, deleting, retrieving, saving, updating and showing all data that's saved within the program's database.

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- Following flowchart explains the program and how it processes user input.

- # Passing Test cases

✔ Test Case #0	✔ Test Case #1	✔ Test Case #2
✔ Test Case #3	✔ Test Case #4	✔ Test Case #5
✔ Test Case #6	✔ Test Case #7	✔ Test Case #8
✔ Test Case #9	✔ Test Case #10	✔ Test Case #11
✔ Test Case #12	✔ Test Case #13	✔ Test Case #14
✔ Test Case #15	✔ Test Case #16	✔ Test Case #17
✔ Test Case #18	✔ Test Case #19	✔ Test Case #20
✔ Test Case #21	✔ Test Case #22	✔ Test Case #23
✔ Test Case #24	✔ Test Case #25	✔ Test Case #26

- # Features of the program

1. Add then show:

```
Microsoft Visual Studio Debug Console                                          —   □   ×
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
add
ahmed
01234567891
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
add
omar
01234567891
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
show
ahmed 01234567891
omar 01234567891

C:\Users\20128\Desktop\ConsoleApplication1\x64\Debug\ConsoleApplication1.exe (process 5668) exited with code 0.
Press any key to close this window . . .
```

2. Update and show:

```
Microsoft Visual Studio Debug Console                                    —  □  ×
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
update
ahmed
01112345671
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
show
ahmed 01112345671
omar 01234567891

C:\Users\20128\Desktop\ConsoleApplication1\x64\Debug\ConsoleApplication1.exe (process 14476) exited with code 0.
Press any key to close this window . . .
```

3. Retrieve:

```
Microsoft Visual Studio Debug Console                                    —  □  ×
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
retrieve
omar
omar 01234567891
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
retrieve
ahmed
ahmed 01112345671
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
exit

C:\Users\20128\Desktop\ConsoleApplication1\x64\Debug\ConsoleApplication1.exe (process 15372) exited with code 0.
Press any key to close this window . . .
```

4. Delete and show:

```
Microsoft Visual Studio Debug Console
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
delete
ahmed
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
show
omar 01234567891

C:\Users\20128\Desktop\ConsoleApplication1\x64\Debug\ConsoleApplication1.exe (process 10472) exited with code 0.
Press any key to close this window . . .
```

5. Show function:

```
Microsoft Visual Studio Debug Console
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
show
omar 01234567891
ahmed 01280890266

C:\Users\20128\Desktop\ConsoleApplication1\x64\Debug\ConsoleApplication1.exe (process 11504) exited with code 0.
Press any key to close this window . . .
```

6. General usage:

```
Microsoft Visual Studio Debug Console

Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
add
ahmed
12347634525
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
update
ahmed
01280890266
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
retrieve
omar
omar 01234567891
Choose an Operation
[1] ADD a new contact.
[2] UPDATE a specific contact.
[3] RETRIEVE a specific contact.
[4] DELETE a specific contact.
[5] SHOW ALL DATA.
[6] EXIT.
show
omar 01234567891
ahmed 01280890266
```