



Department of Electrical & Computer Engineering

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ENCS313 Linux Laboratory

Shell Scripting Project – Contact Management System

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The idea:

The program let the user to add contacts to txt file he chooses, in addition to edit, search, list and delete any contact he want , by choosing an option from a menu which has all these options .

As for add a new contact , each contact has a (first name , last name , phone number and email) , the user is forced to enter the first name , phone number and email , otherwise the remaining are optional to be added.

As for list, the program will let the user list the contacts based on the first name or on the last name.

As for the Search, the user can search using any field or part of field or combination of field.

As for edit, the program ask user to enter the field he want to edit, then ask after selecting it , it will ask to enter the contact field he want to edit and then ask to enter the new to replace it , the program will show all the contacts that have that name or information of the field , this displaying is made especially for the dependency contact , that is we let the user edit a specific field if there is many have the same name , because of that the program ask the user to enter another specific field for that contact from the displayed contacts to select the contact must be edited.

Finally, for delete the contact, the program asks the user the string of any field then it will be deleted with its information in the txt file

The screen shots of each task with testing examples :

- 1- In the first time , the file.txt is not exist
- 2- In the second time , the Contact.txt is exist → open the menu

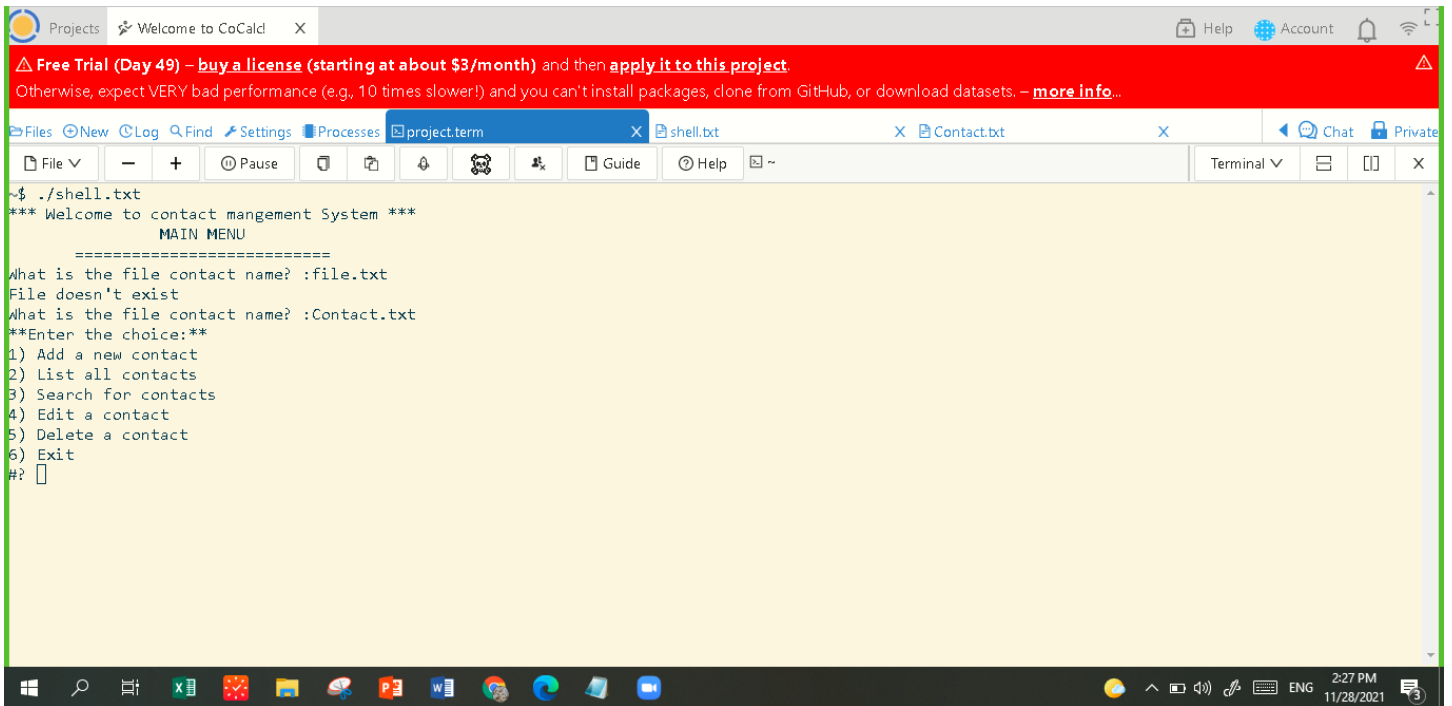


Figure 1

The file Contact.txt content in the begining:

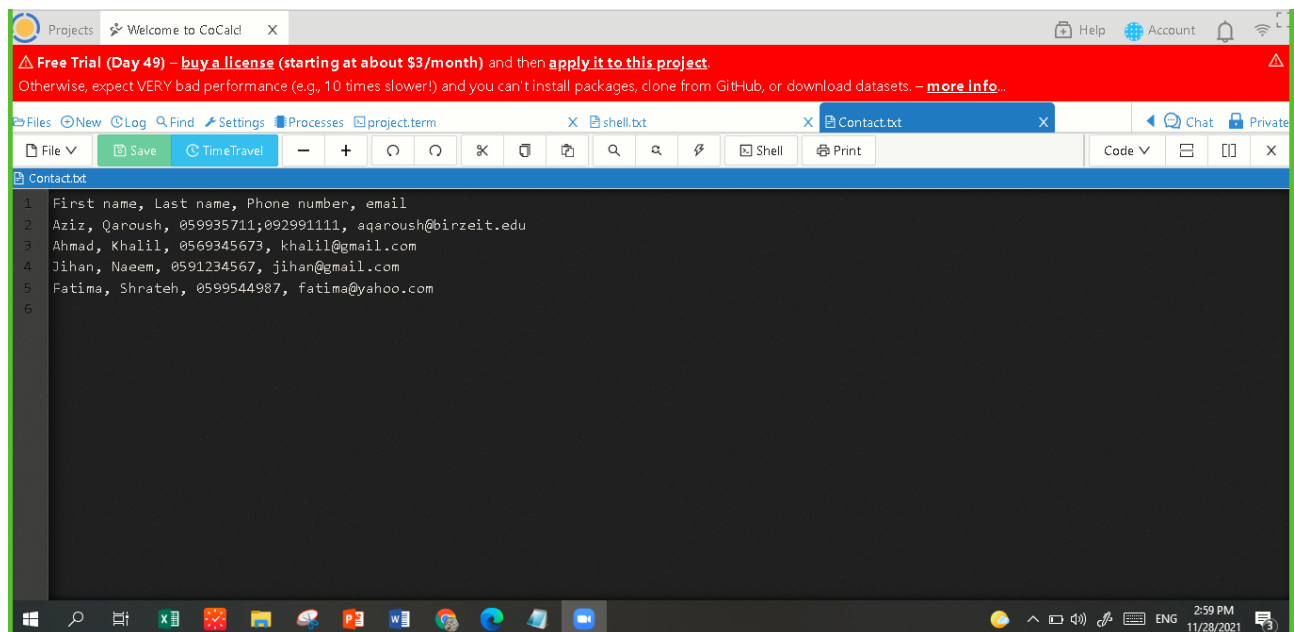


Figure 2

1- Adding a new contact with a correct information

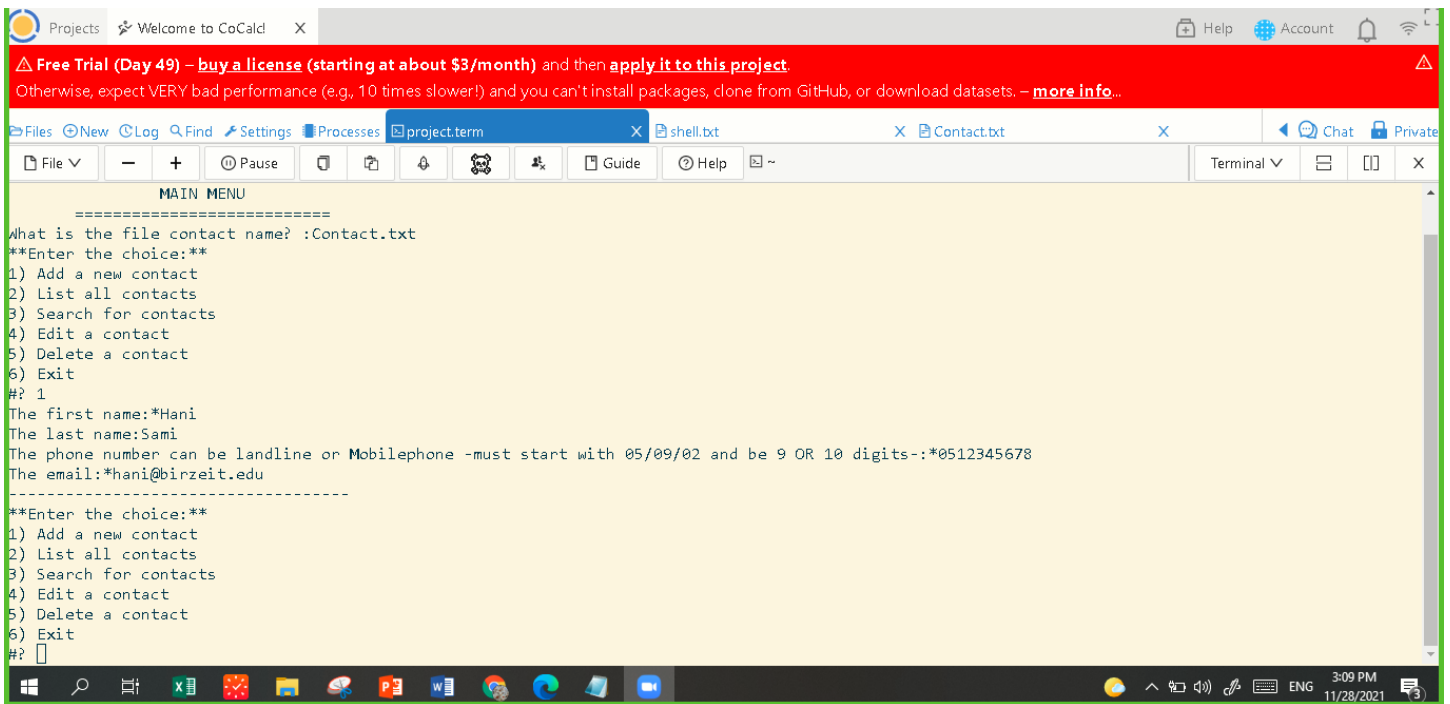


Figure 3

2- The Contact.txt content after adding new contact :

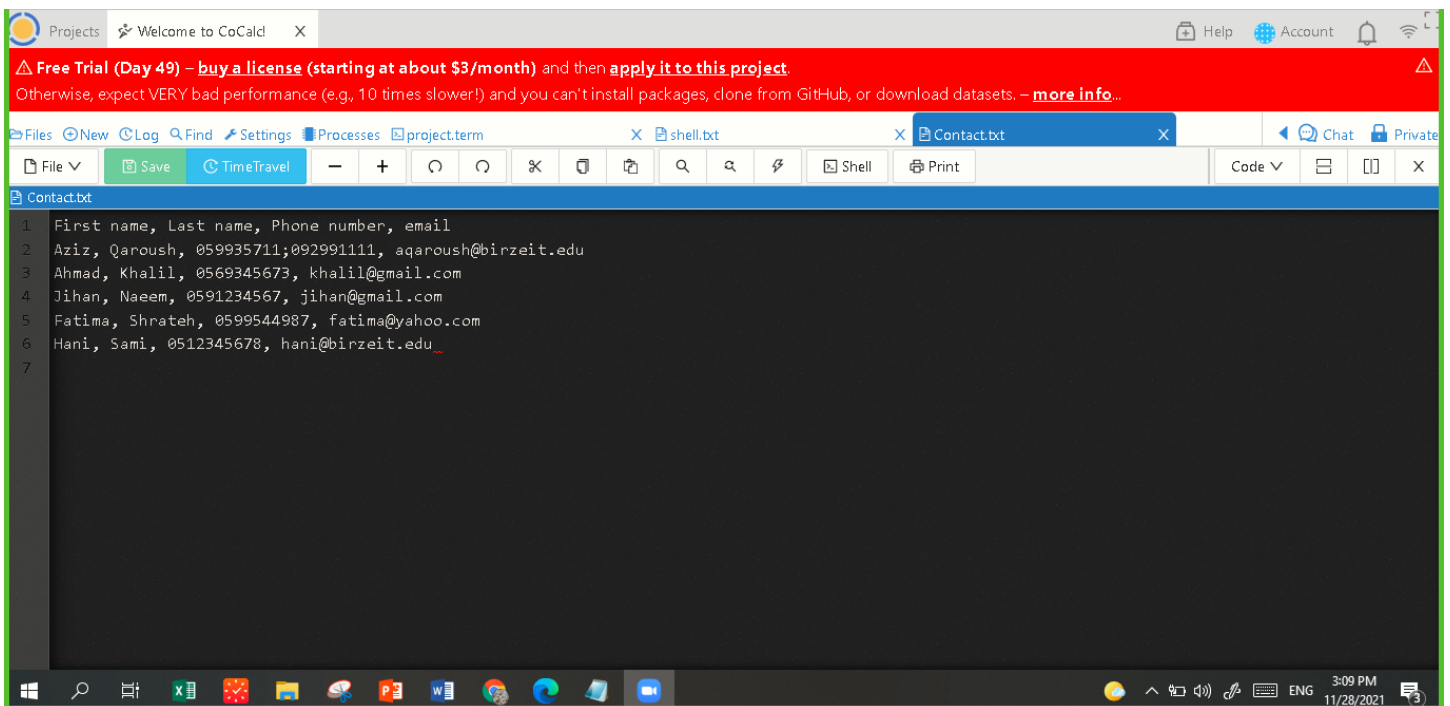
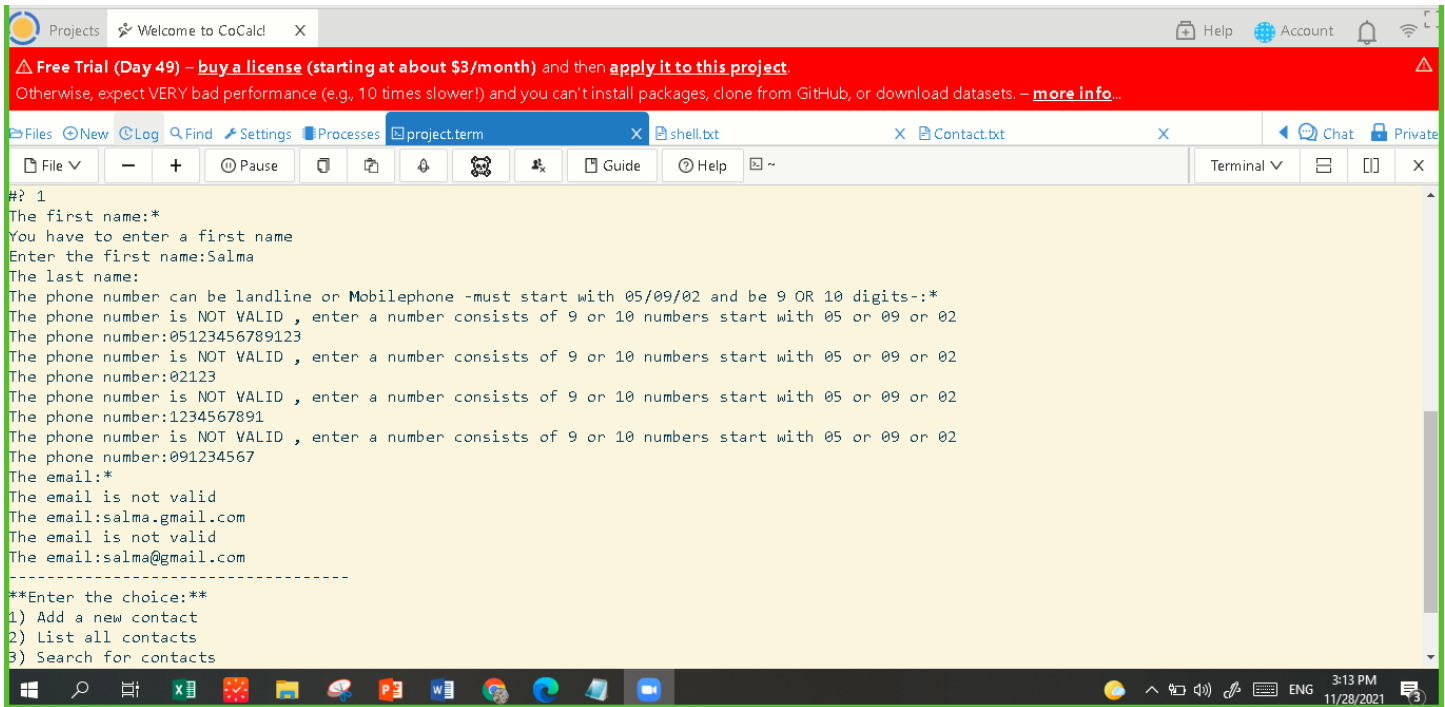


Figure 4

- 3- In the beginning , we didn't enter a first name , so the program asked to enter again .
- 4- We didn't enter the last name so the program continue that is last name is an optional

- 5- We didn't enter a number in the first , so program asked again for a one , then we entered many numbers in many cases to check :
- a- Number more than 10 digits → it's **not valid**
 - b- Number less than 9 digits → it's **not valid**
 - c- Number doesn't start with 05/09/02 → it's **not valid**
 - d- Number start with 09 and consist of 10 digits → it's **VALID**
- 6- We didn't enter an email so the program asked AGAIN
- 7- We entered an email without @ → it's **not valid**
- 8- We entered an email with @ → it's **VALID**



```
#? 1
The first name:*
You have to enter a first name
Enter the first name:Salma
The last name:
The phone number can be landline or Mobilephone -must start with 05/09/02 and be 9 OR 10 digits-:*
The phone number is NOT VALID , enter a number consists of 9 or 10 numbers start with 05 or 09 or 02
The phone number:05123456789123
The phone number is NOT VALID , enter a number consists of 9 or 10 numbers start with 05 or 09 or 02
The phone number:02123
The phone number is NOT VALID , enter a number consists of 9 or 10 numbers start with 05 or 09 or 02
The phone number:1234567891
The phone number is NOT VALID , enter a number consists of 9 or 10 numbers start with 05 or 09 or 02
The phone number:091234567
The email:*
The email is not valid
The email:salma@gmail.com
The email is not valid
The email:salma@gmail.com
-----
**Enter the choice:**
1) Add a new contact
2) List all contacts
3) Search for contacts
```

Figure 5

The Contact.txt content after adding a second user , note that Last name is an optional so it's empty:

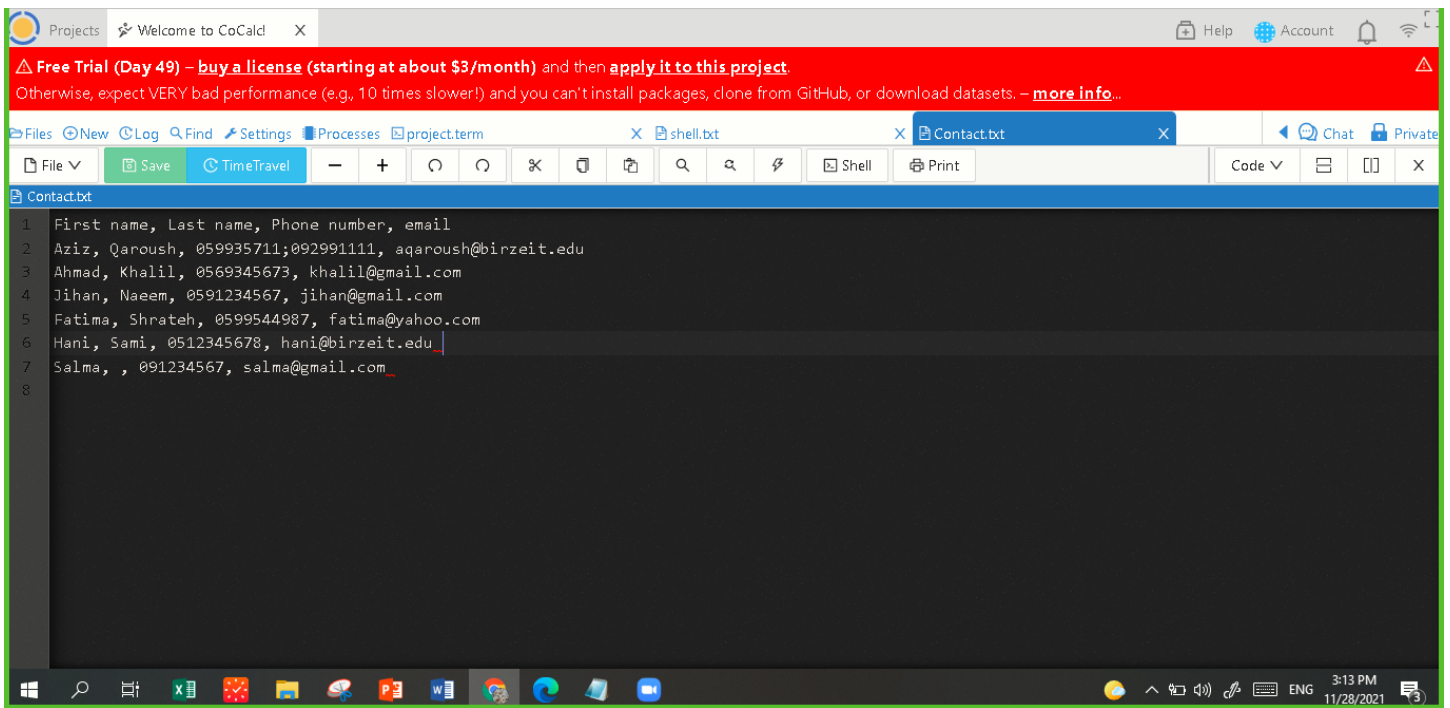


Figure 6

2-For the list contacts , when we entered F , the program shows all the first names , and when entered L , it shows all the Last names in the Contact.txt

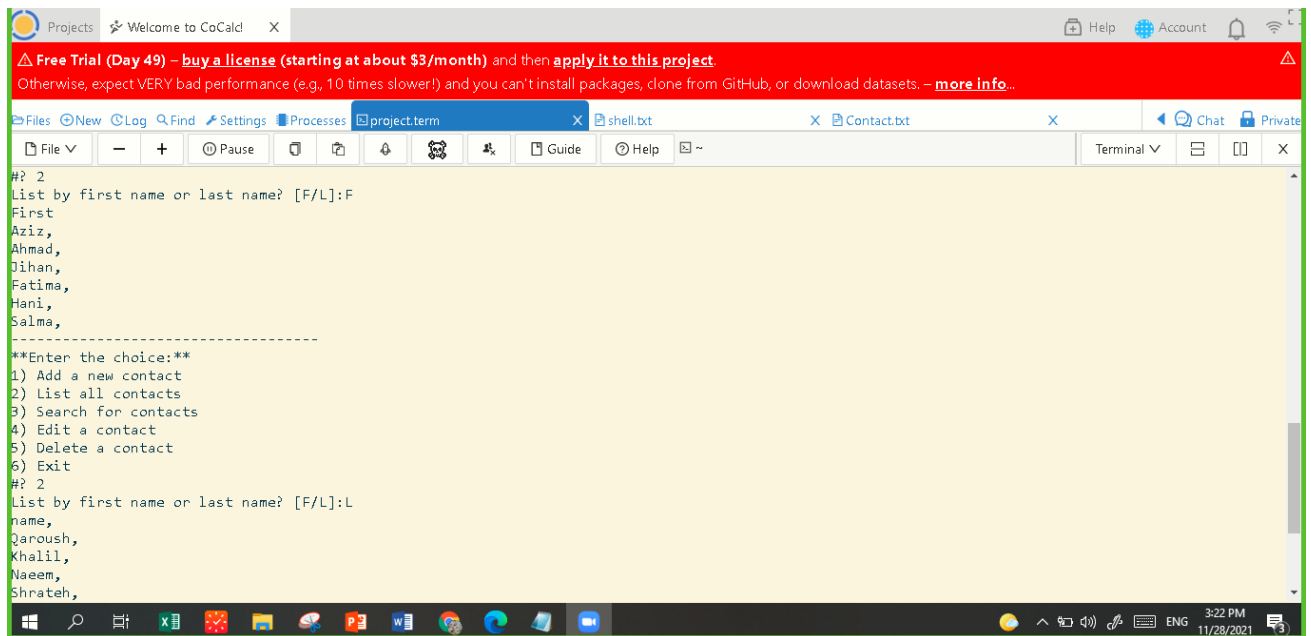


Figure 7

3-If the choice was 3 , then the program will search:

The content of the file before making search :

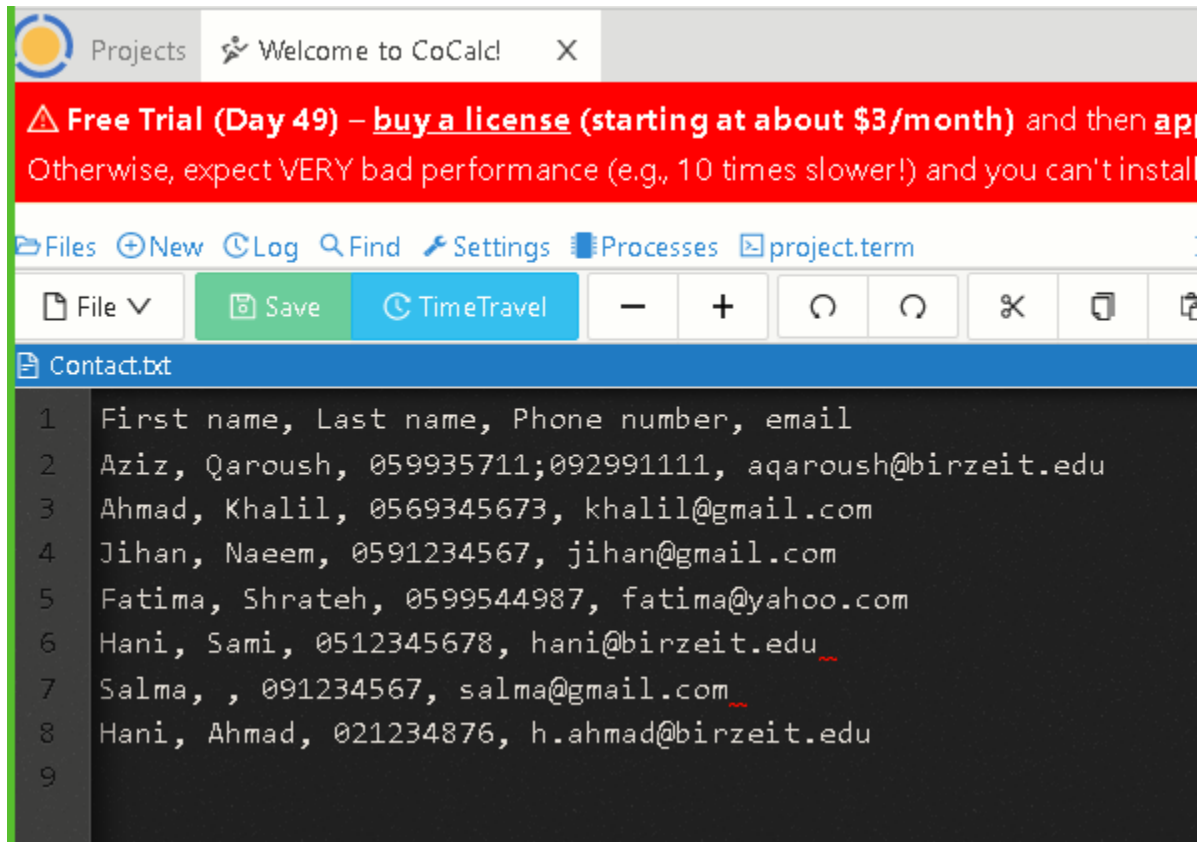


Figure 8

We entered Hani that it is the first name → the program shows all contacts have the name Hani:

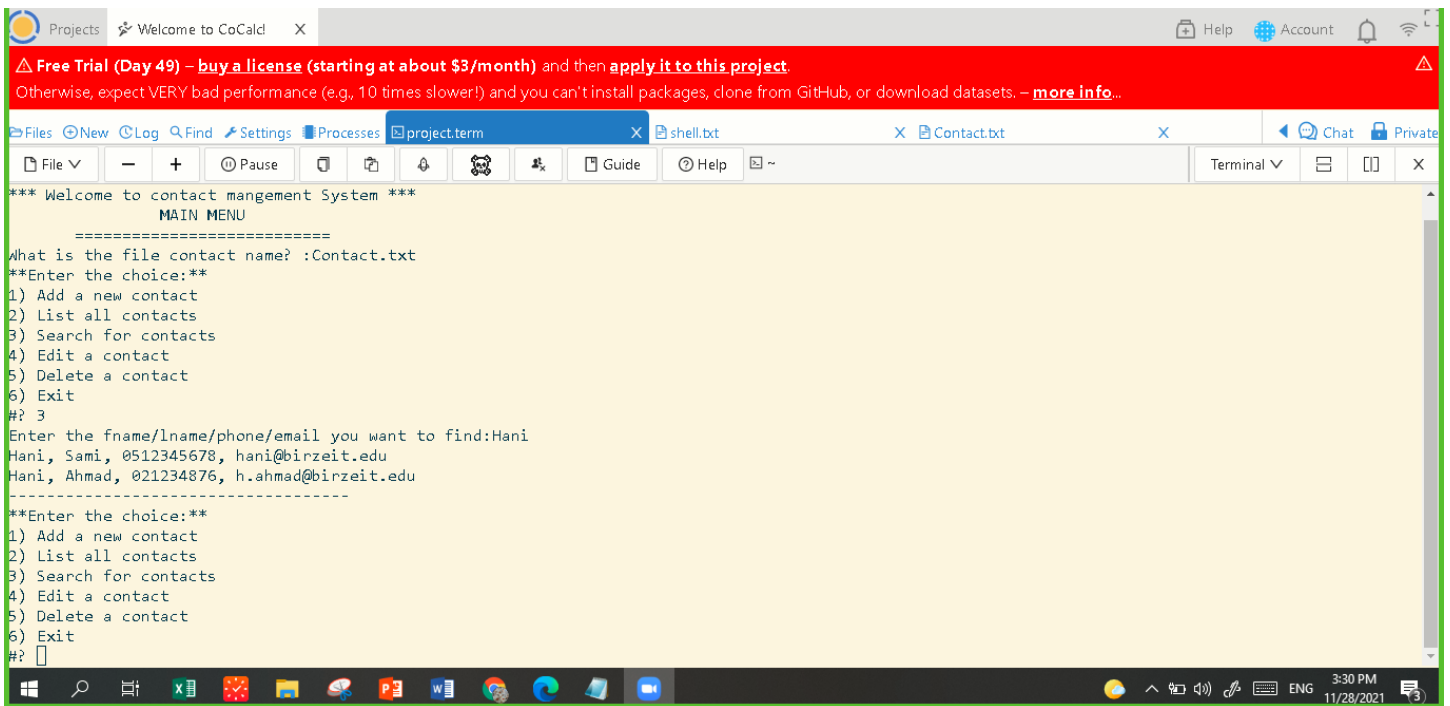


Figure 9

We entered gmail that we want to show all the gmail emails → the program shows all contacts have the email gmail:

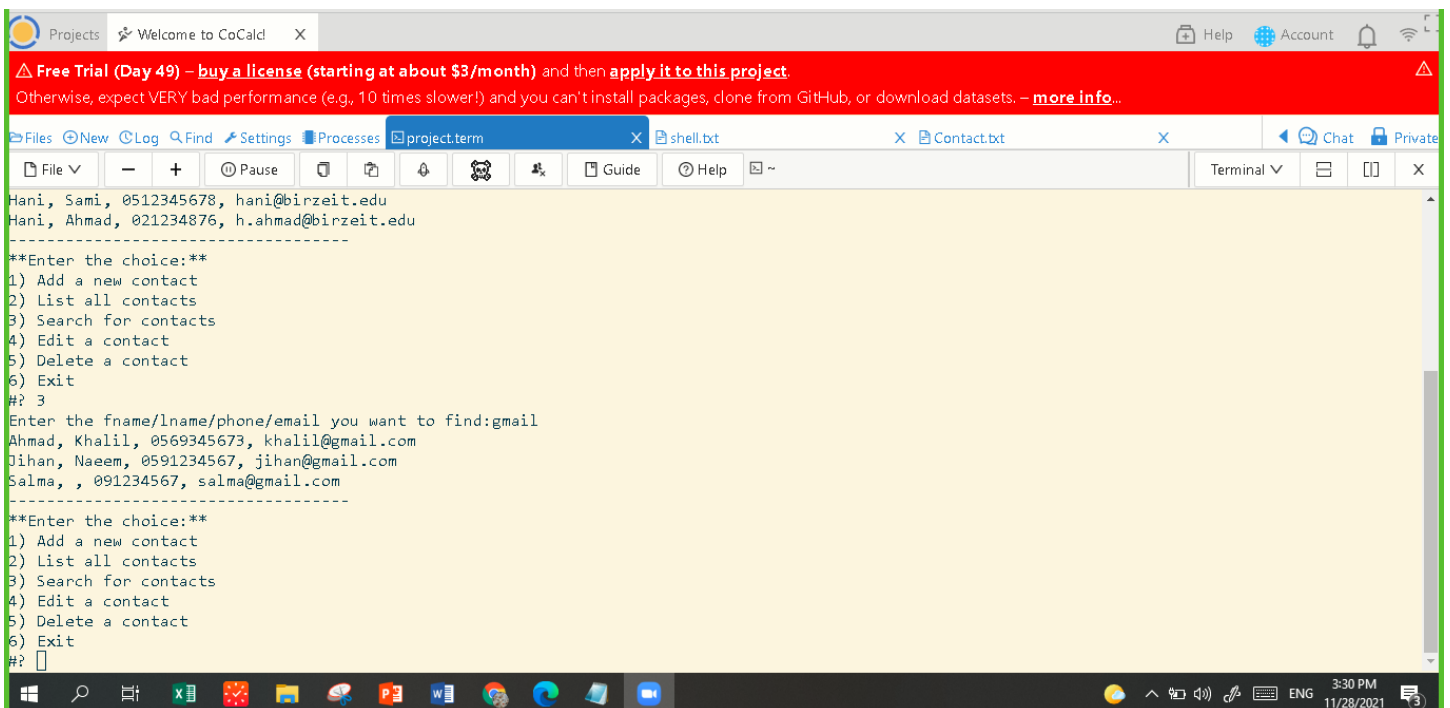
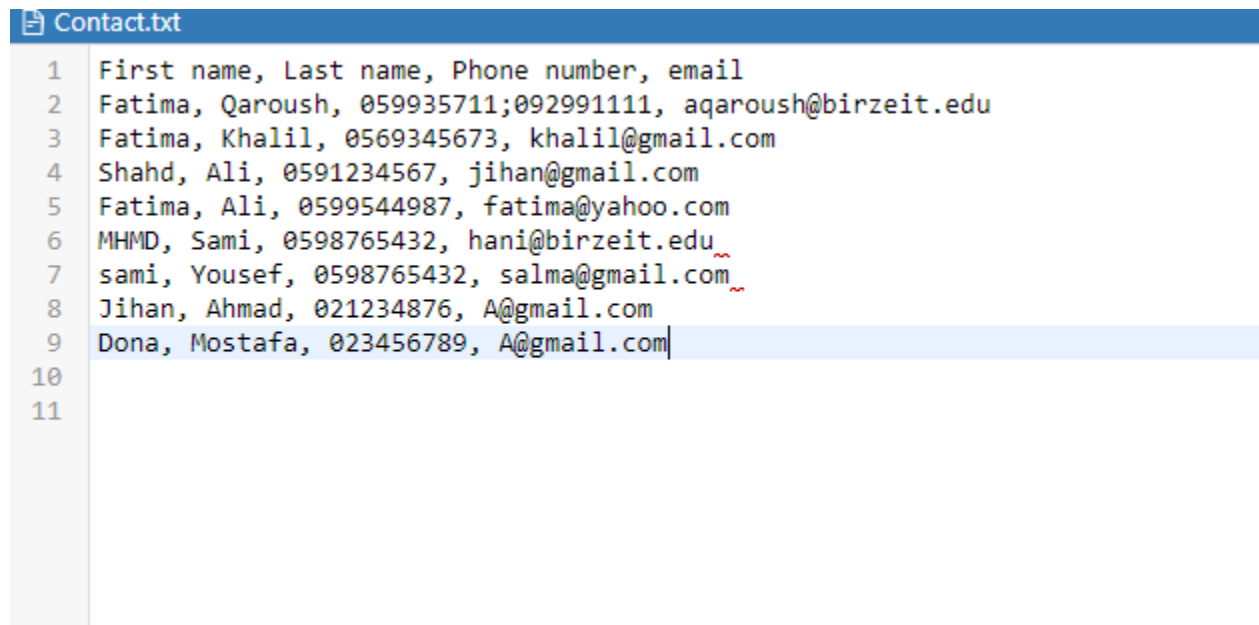


Figure 10

4-if the choice was 4 , the program will edit a field of contact:

File content before:

A screenshot of a text editor window titled 'Contact.txt'. The window has a blue header bar. The text is as follows:

```
1 First name, Last name, Phone number, email
2 Fatima, Qaroush, 059935711;092991111, aqaroush@birzeit.edu
3 Fatima, Khalil, 0569345673, khalil@gmail.com
4 Shahd, Ali, 0591234567, jihan@gmail.com
5 Fatima, Ali, 0599544987, fatima@yahoo.com
6 MHMD, Sami, 0598765432, hani@birzeit.edu
7 sami, Yousef, 0598765432, salma@gmail.com
8 Jihan, Ahmad, 021234876, A@gmail.com
9 Dona, Mostafa, 023456789, A@gmail.com
10
11
```

The line containing 'Dona, Mostafa, 023456789, A@gmail.com' is highlighted in light blue. The line numbers 1 through 11 are visible on the left side of the editor.

Figure 11

1.Try Editing the first name

We entered F to edit a first name called Fatima to Malak , so the program show all the contacts have the name Fatima and ask user to enter the last name of the specific Fatima to edit it:

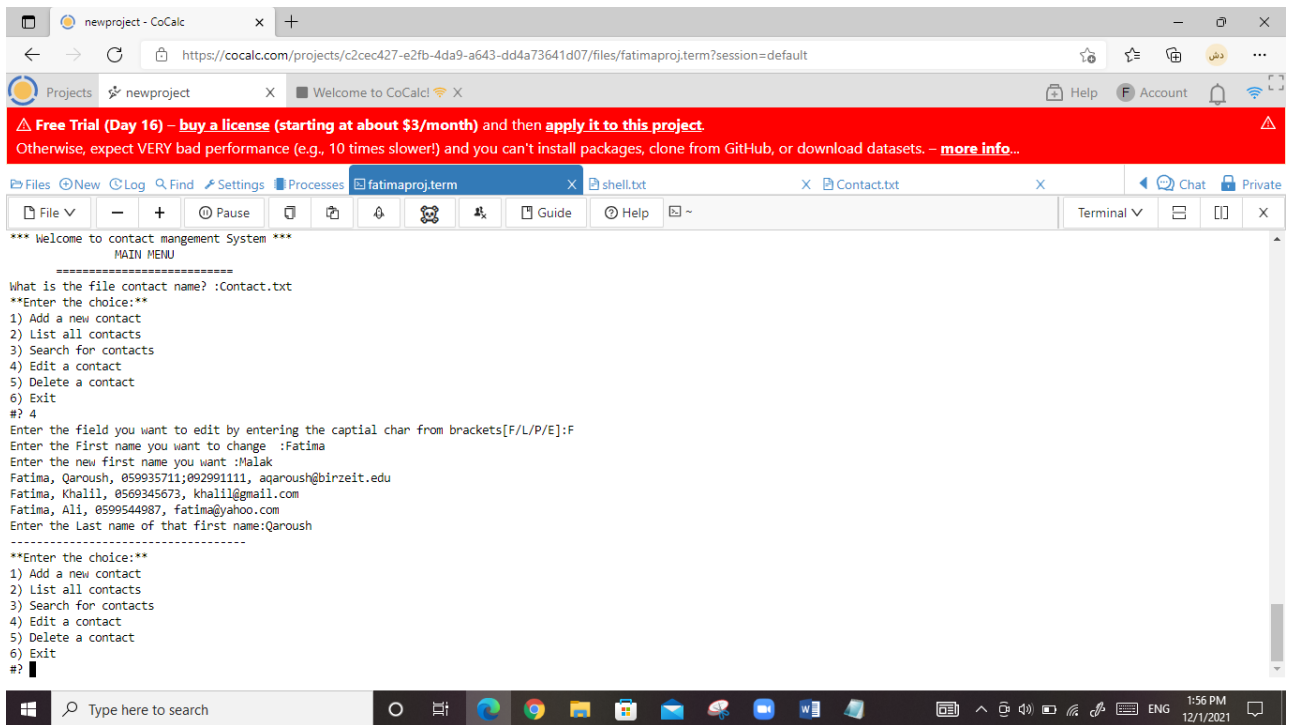


Figure 12

File content after editing :

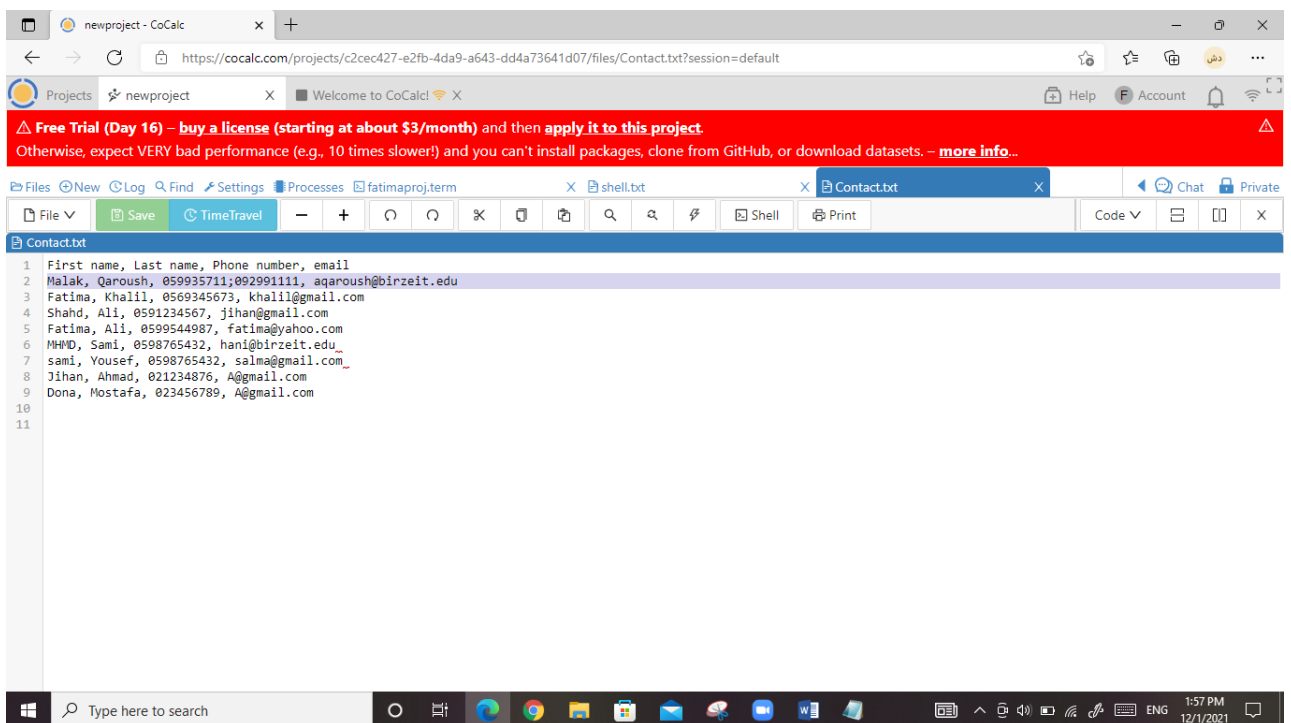
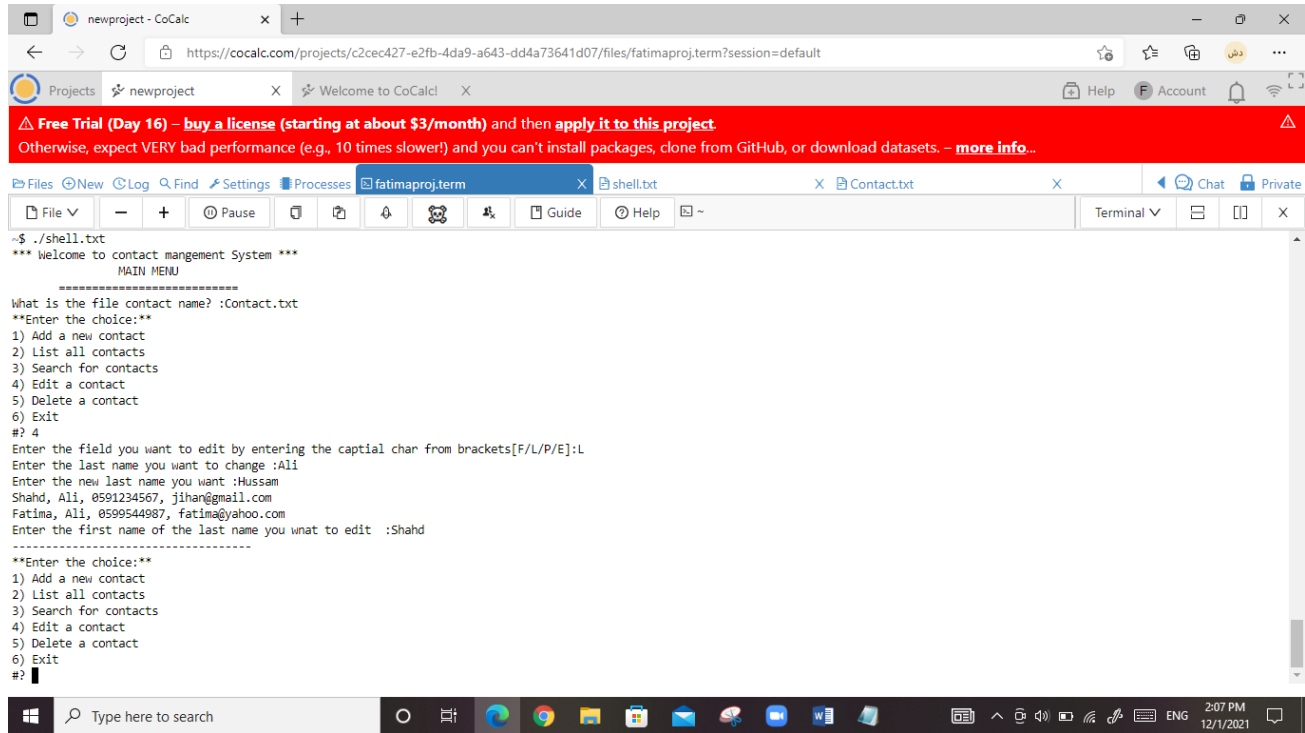


Figure 13

2.Edit last name

We entered L to edit a last name called Ali to Hussam , so the program show all the contacts have the name Ali and ask user to enter the first name of the specific Ali to edit it:



The screenshot shows a web browser window with a terminal interface. The terminal displays the following text:

```
-$ ./shell.txt
*** Welcome to contact mangement System ***
MAIN MENU
=====
What is the file contact name? :Contact.txt
**Enter the choice:**
1) Add a new contact
2) List all contacts
3) Search for contacts
4) Edit a contact
5) Delete a contact
6) Exit
#? 4
Enter the field you want to edit by entering the captial char from brackets[F/L/P/E]:L
Enter the last name you want to change :Ali
Enter the new last name you want :Hussam
Shahd, Ali, 0591234567, jihan@gmail.com
Fatima, Ali, 0599544987, fatima@yahoo.com
Enter the first name of the last name you wnat to edit :Shahd
-----
**Enter the choice:**
1) Add a new contact
2) List all contacts
3) Search for contacts
4) Edit a contact
5) Delete a contact
6) Exit
#? 
```

Figure 14

File content after editing :

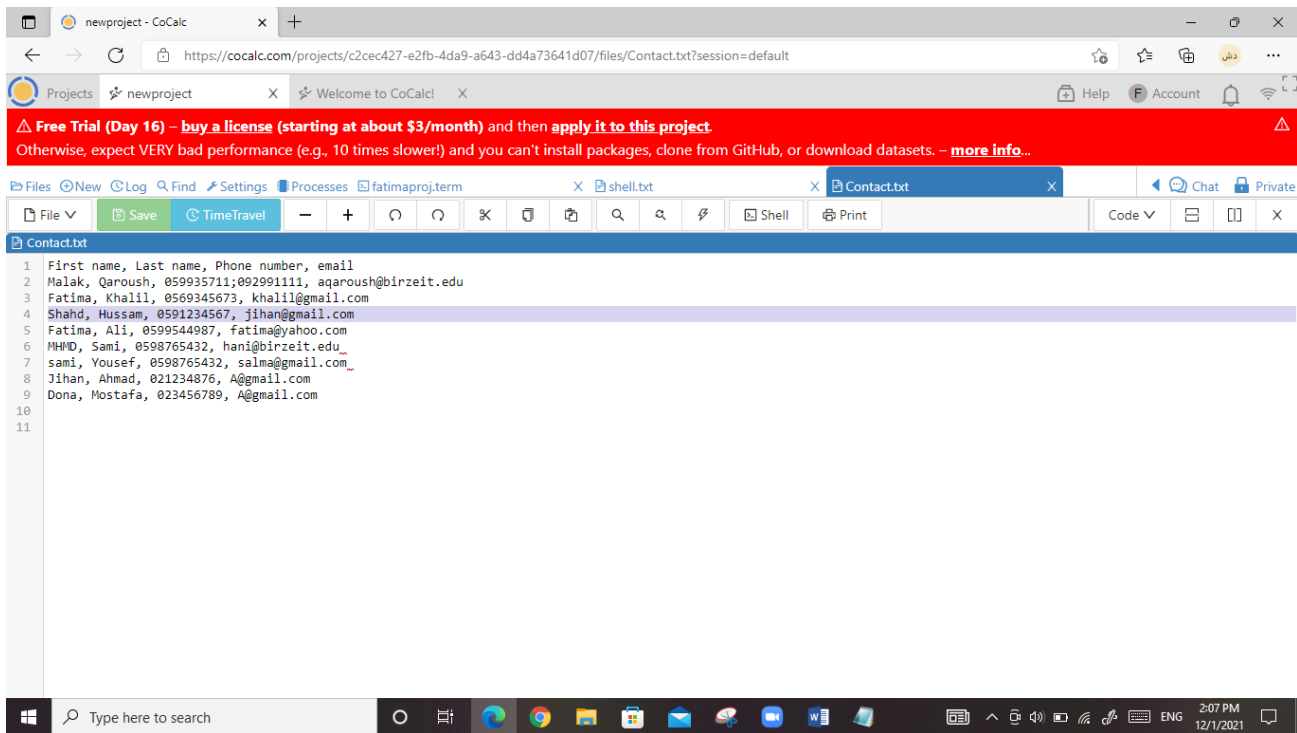


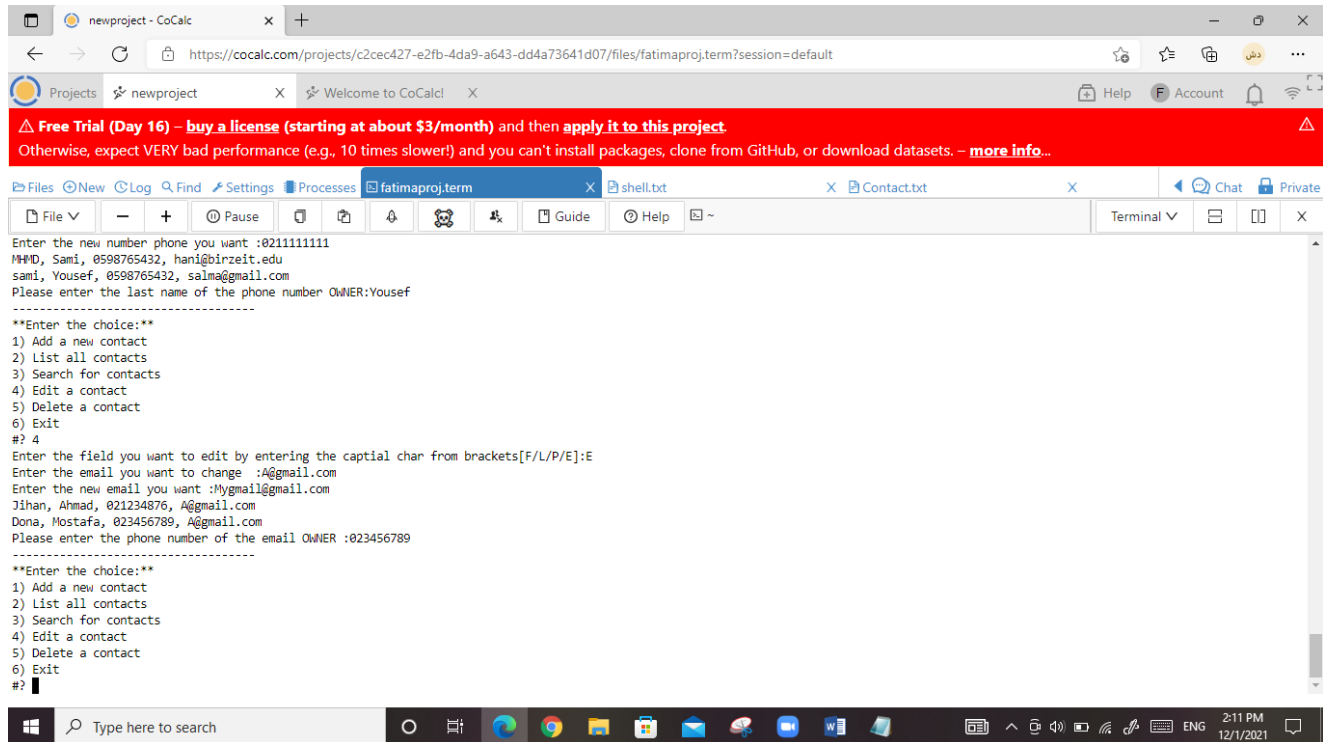
Figure 15

3.Edit Phone number

We entered P to edit a phone number as in the figure below , so the program show all the contacts have that number and ask user to enter the last name of the specific number to edit it:

4.Edit the email:

We entered E to edit the required email as in the fig below, so the program show all the contacts have that email and ask user to enter the phone number of the specific email to edit it:



```
newproject - CoCalc
https://cocalc.com/projects/c2cec427-e2fb-4da9-a643-dd4a73641d07/files/fatimaproj.term?session=default

Free Trial (Day 16) – buy a license (starting at about $3/month) and then apply it to this project.
Otherwise, expect VERY bad performance (e.g., 10 times slower!) and you can't install packages, clone from GitHub, or download datasets. – more info...

Files New Log Find Settings Processes fatimaproj.term shell.txt Contact.txt Chat Private
File - + Pause Copy Paste Undo Redo Guide Help ~ Terminal X

Enter the new number phone you want :0211111111
MMD, Sami, 0598765432, hani@birzeit.edu
sami, Yousef, 0598765432, salma@gmail.com
Please enter the last name of the phone number OWNER:Yousef
-----
**Enter the choice:**
1) Add a new contact
2) List all contacts
3) Search for contacts
4) Edit a contact
5) Delete a contact
6) Exit
#? 4
Enter the field you want to edit by entering the captial char from brackets[F/L/P/E]:E
Enter the email you want to change :A@gmail.com
Enter the new email you want :Mygmail@gmail.com
Jihan, Ahmad, 021234876, A@gmail.com
Dona, Mostafa, 023456789, A@gmail.com
Please enter the phone number of the email OWNER :023456789
-----
**Enter the choice:**
1) Add a new contact
2) List all contacts
3) Search for contacts
4) Edit a contact
5) Delete a contact
6) Exit
#? 
```

Figure 18

File content after editing :

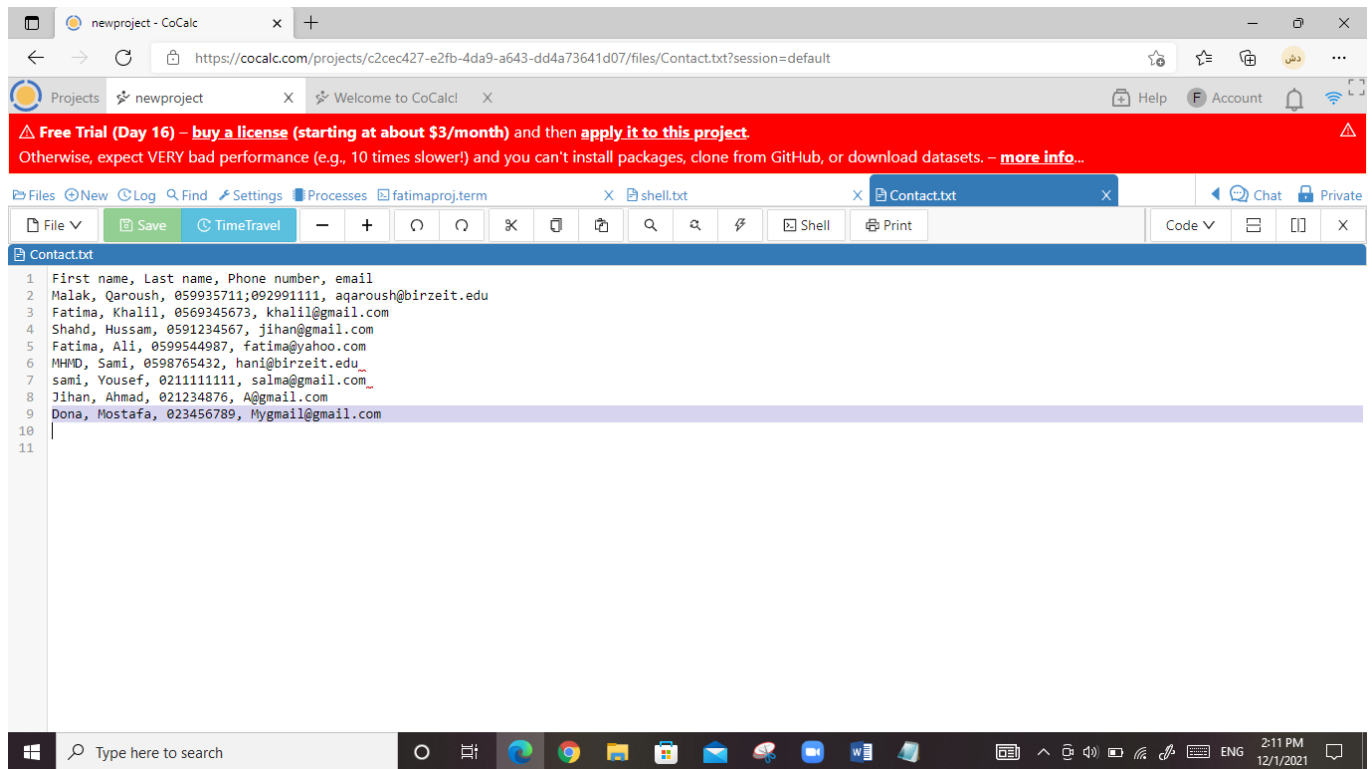


Figure 19

5-if the choice was 5 → delete the specific contact

Delete the line contain the first name

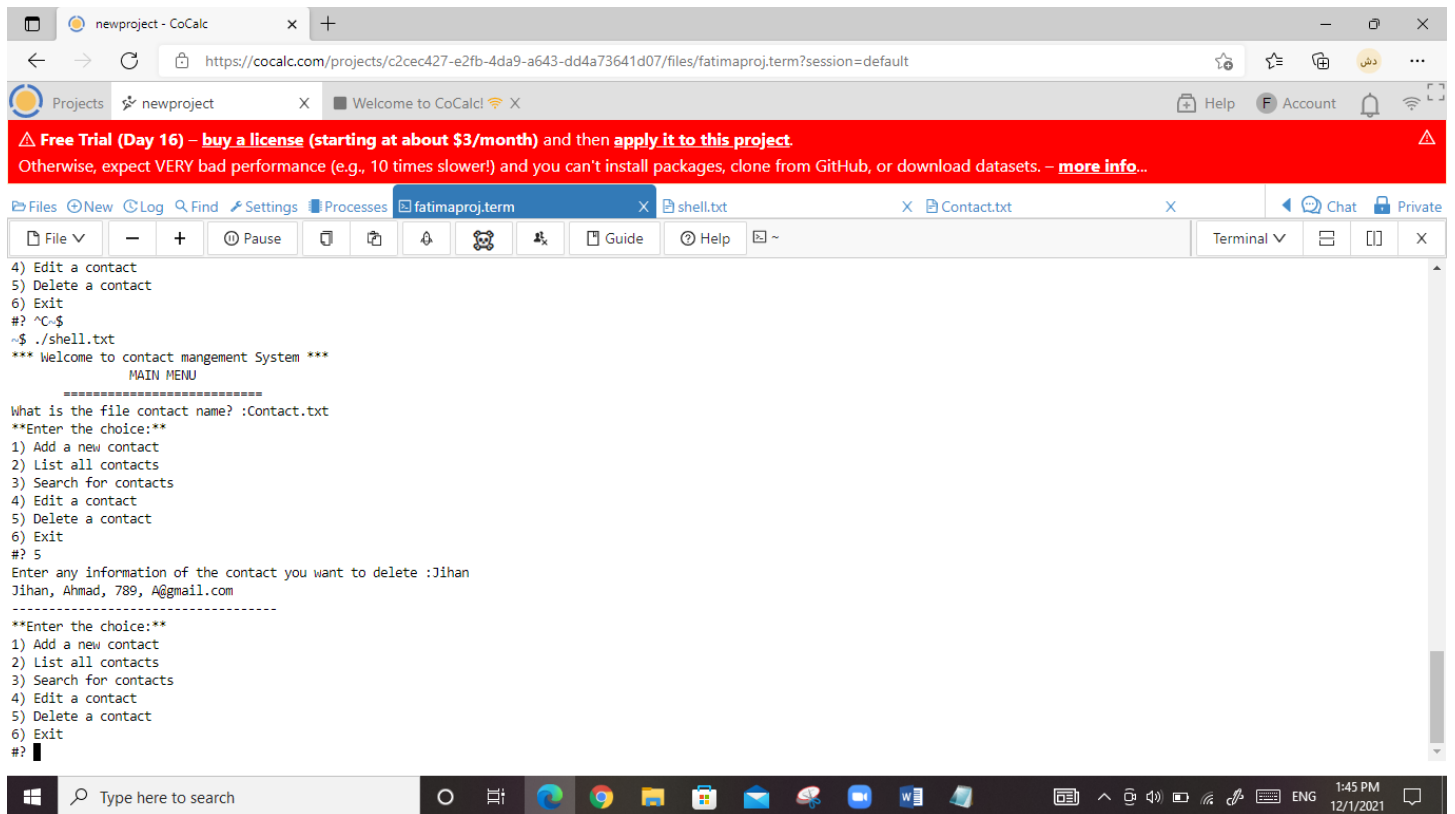


Figure 20

File content after delete :

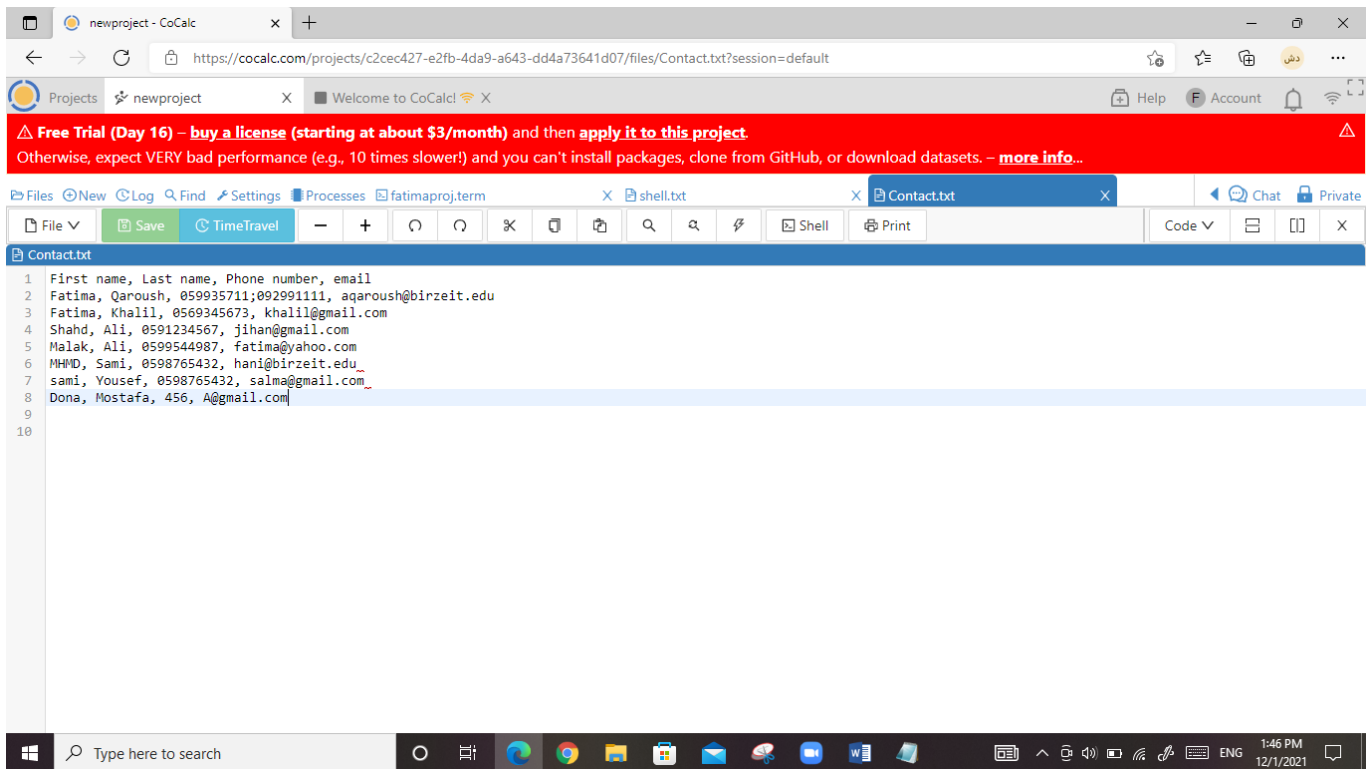


Figure 21

In the beginning Delete the line contain the required Last name Yousef and in the second time delete the contact that has the entered phone number

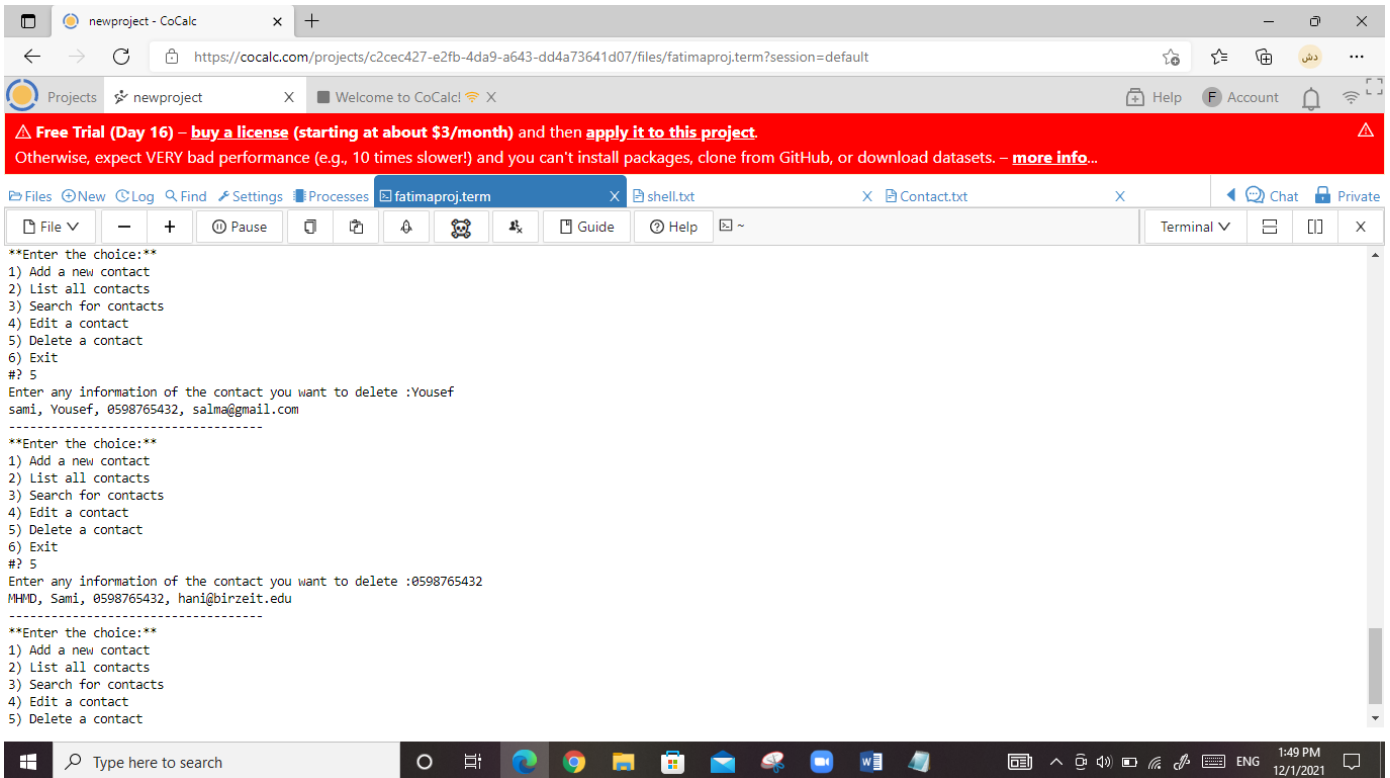


Figure 22

File content after editing :

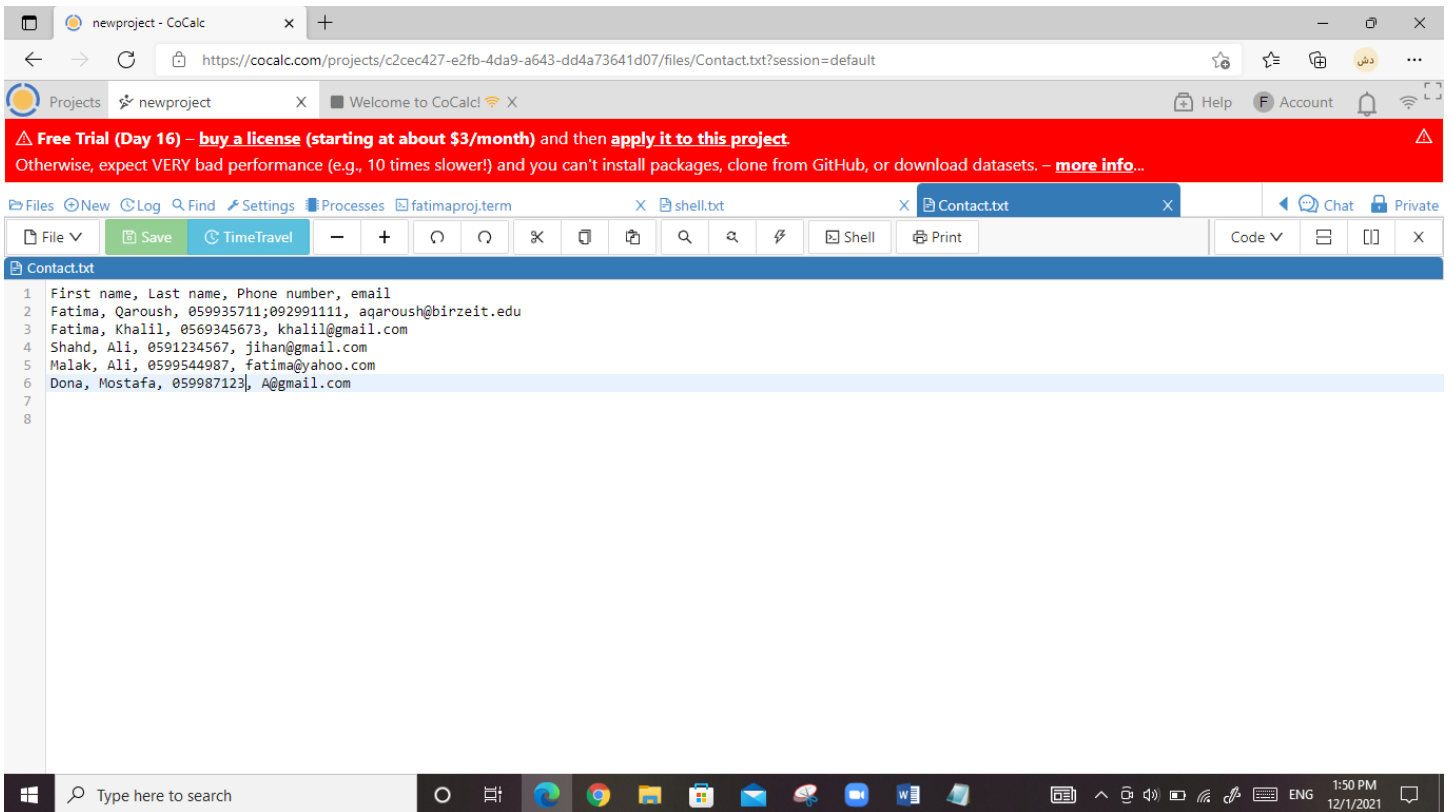


Figure 23

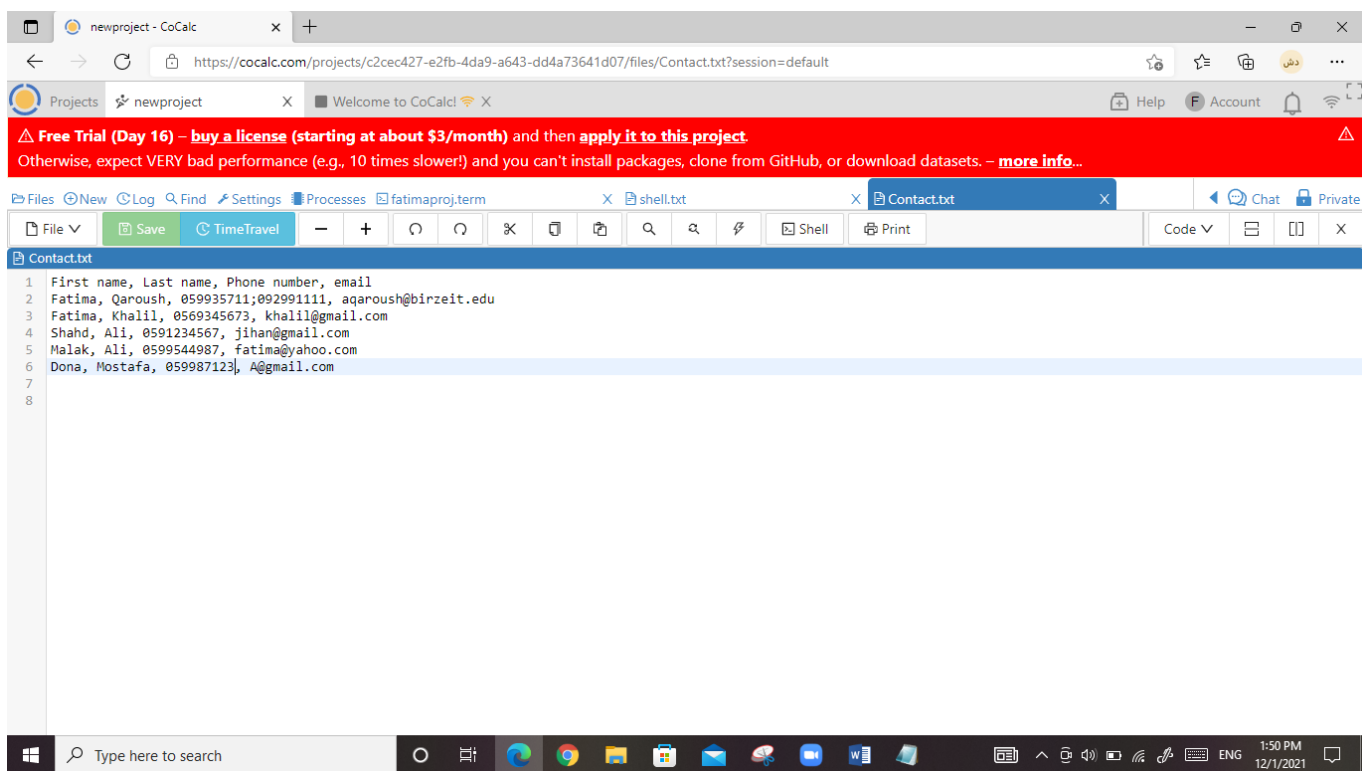


Figure 24

Delete the line contain the entered email

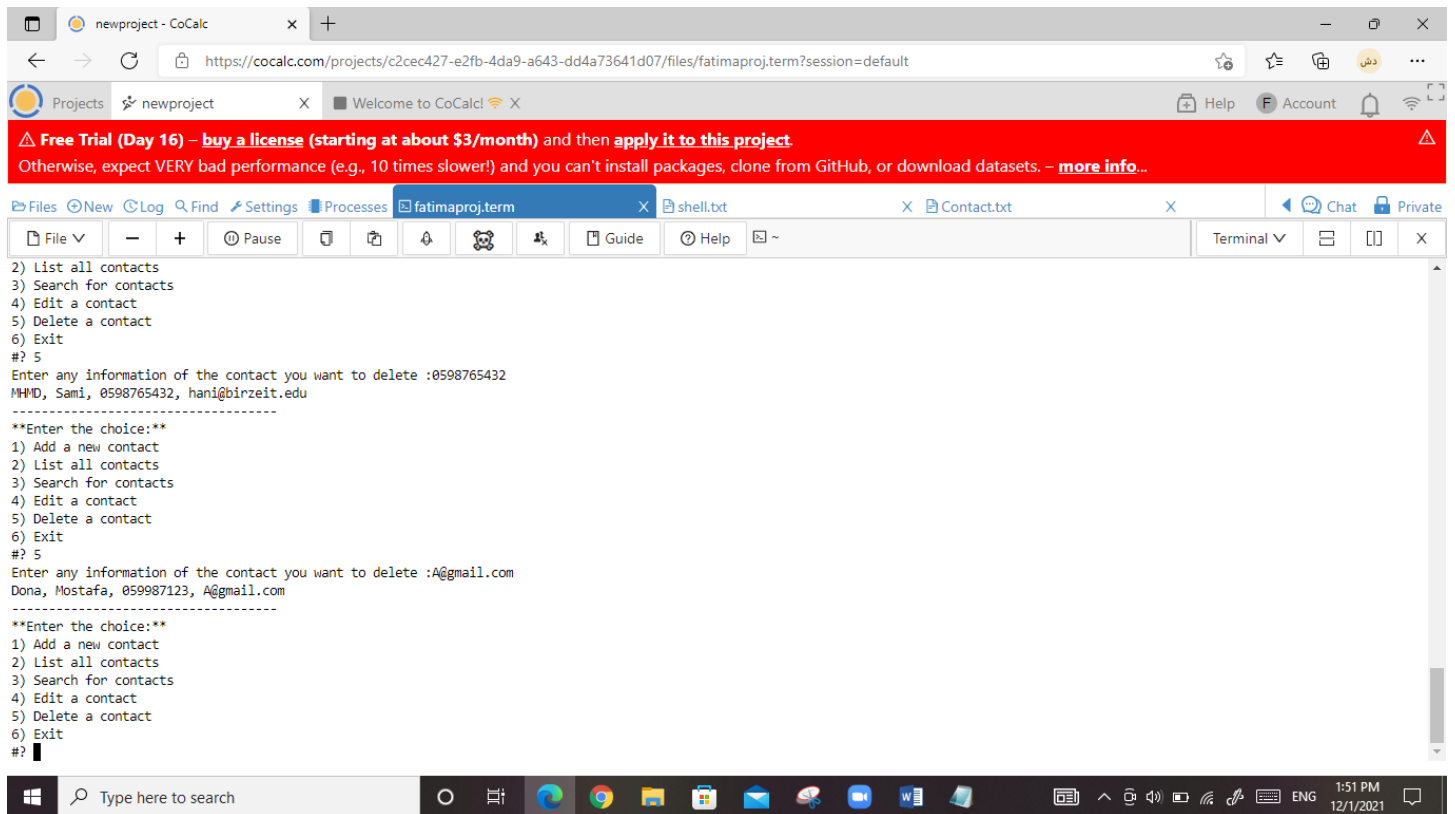


Figure 25

File content after delete :

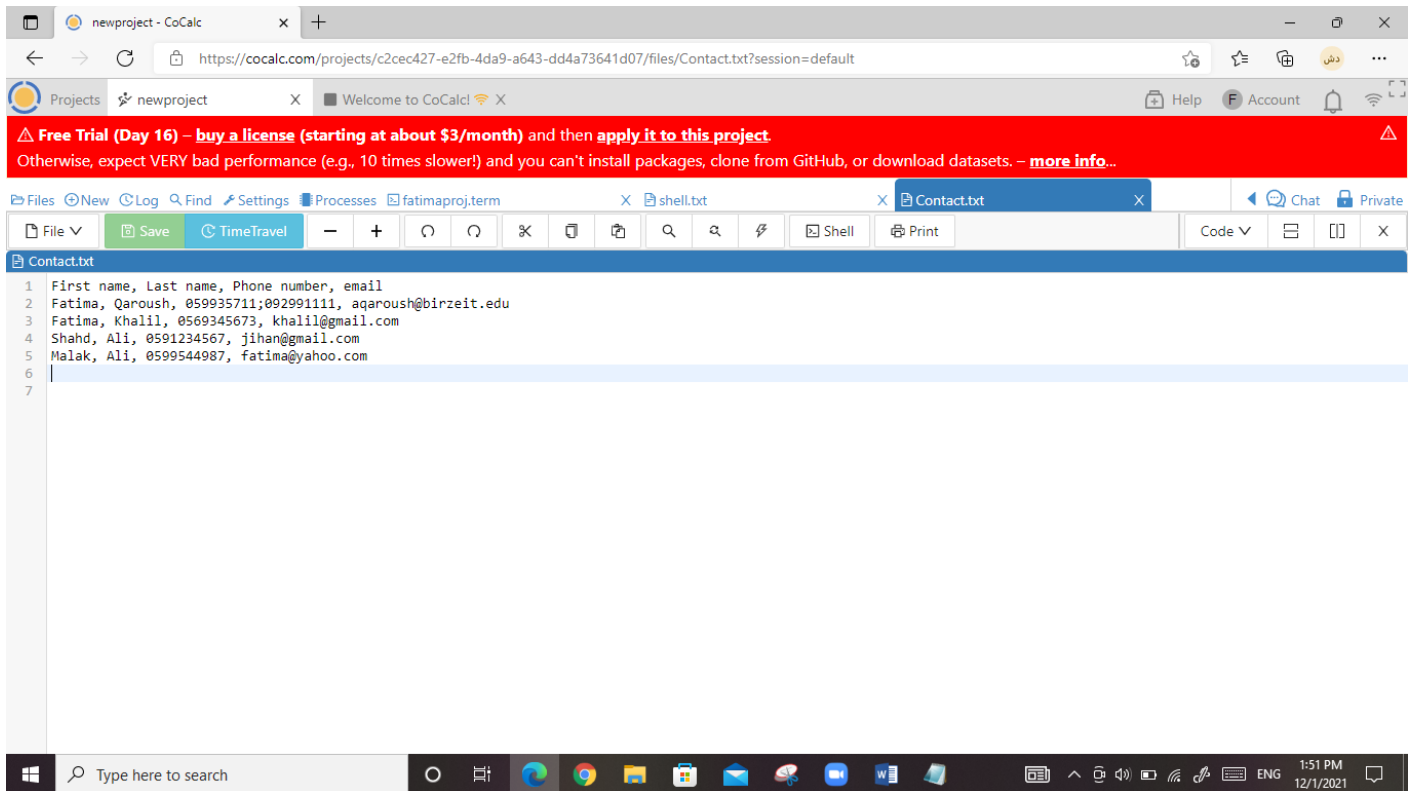


Figure 26

If the user enter 6 as a choice , the program will exit:

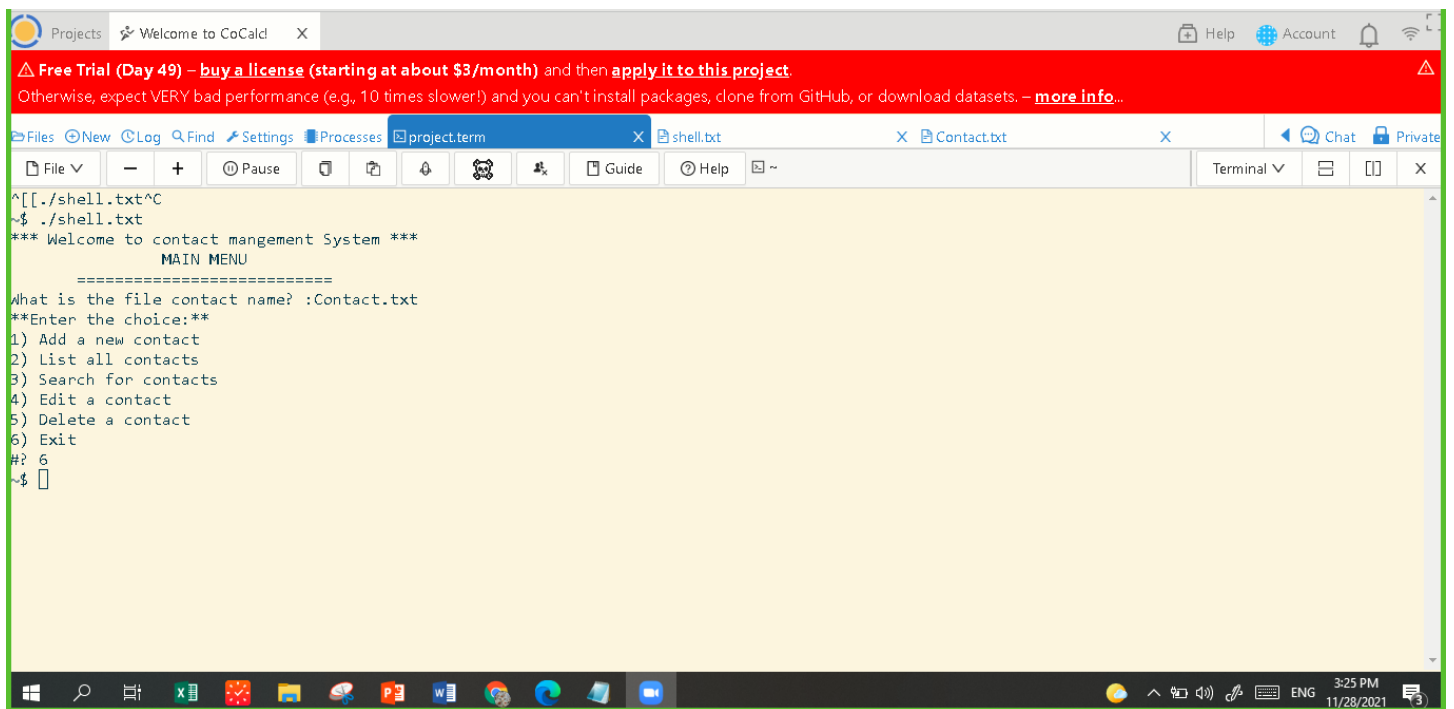


Figure 27