BIRZEIT UNIVERSITY

LINUX LABORATORY- Lecture-1211 - ENCS3130

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Section: 3

First of all, the program will ask the user to enter the input file and after that the main menu will appear to the screen.

```
amany@amany-VirtualBox:~$ ./project_final.txt
Hello, could you please enter the name of the required file (contact.txt) :
contact.txt
Welcome to Amany khdair and Hadeel Abdellatif contact management system

        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
```

if the user enters another file different from the required file, the following will appear

```
Hello, could you please enter the name of the required file (contact.txt) :
myfile.txt
'myfile.txt'ops! the file you tried to enter doesn't exist :(
```

[1] add a new contact:

the following 2 examples will appear on the screen:

```
          MAIN MENU
===============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
===============================
Enter the choice :
1
please enter the first name
katy
please enter the last name
sadi
please enter the email
katy.sadi@gmail
please enter the phone number
0599806754
your contacts are :
First name, Last name, phone numbers, email
aziz, qarouch, 0987585753, aziz@birzeit.edu
amany, khdair, 0599802388, amany@gmail.com
sara, amjad, 02154556666666, saramai
hadeel, hadool, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
```

Or if the user enters an email without @ sign or a number with digits less than 9 or 10 then:

```
          MAIN MENU
===============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
===============================
Enter the choice :
1
please enter the first name
wafa
please enter the last name
marwan
please enter the email
wafa.marwan
please enter the phone number
0599803
ops! the information you entered are false or something missing please try again
```

[2] list all contact:

If the user wants to list or order the first name then it will done for him 😊

```
          MAIN MENU
==============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
==============================
Enter the choice :
2
select what you want to list :
[1] First name*~*
[2] Last name*~*
Enter the choice :
1
amany, khdair, 0599802388, amany@gmail.com
aziz, qarouch, 0987585753, aziz@birzeit.edu
First name, Last name, phone numbers, email
hadeel, hadool, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
sara, amjad, 02154556666666, saramai
```

And if the user wants to order the last name:

```
          MAIN MENU
==============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
==============================
Enter the choice :
2
select what you want to list :
[1] First name*~*
[2] Last name*~*
Enter the choice :
2
sara, amjad, 02154556666666, saramai
hadeel, hadool, 0584933933, hadeel@gmail
amany, khdair, 0599802388, amany@gmail.com
First name, Last name, phone numbers, email
aziz, qarouch, 0987585753, aziz@birzeit.edu
katy, sadi, 0599806754, katy.sadi@gmail
```

[3] Search for contact:

```
        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
Enter the choice :
3
enter the word you want to search :
katy
katy sadi 0599806754 katy.sadi@gmail
```

```
Enter the choice :
3
enter the word you want to search :
aziz qarouch
aziz qarouch 0987585753 aziz@birzeit.edu
```

Ok, what happened if the user enters a word that does not exist in the file? 😊

```
        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
Enter the choice :
3
enter the word you want to search :
rania
word dose not exist
```

Piece of cake 🤤😂

Next choice number 4 👇

[4] Edit a contact:

```
        MAIN MENU
=============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
=============================
Enter the choice :
4
select what you want to edit :
[1] First name*~*
[2] Last name*~*
[3] Phone numbers *~*
[4] Email *~*
Enter the choice :
1
enter the word you want to edit :
sara
enter the new data please
aseel
aseel
First name, Last name, phone numbers, email
aziz, qarouch, 0987585753, aziz@birzeit.edu
amany, khdair, 0599802388, amany@gmail.com
aseel, amjad, 02154556666666, aseelmai
hadeel, hadool, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
```

Another example:

```
        MAIN MENU
=============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
=============================
Enter the choice :
4
select what you want to edit :
[1] First name*~*
[2] Last name*~*
[3] Phone numbers *~*
[4] Email *~*
Enter the choice :
2
enter the word you want to edit :
hadool
enter the new data please
Abdellatif
Abdellatif
First name, Last name, phone numbers, email
aziz, qarouch, 0987585753, aziz@birzeit.edu
amany, khdair, 0599802388, amany@gmail.com
aseel, amjad, 02154556666666, aseelmai
hadeel, Abdellatif, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
```

And so, on…

[5] Delete a contact:

Here if you remember that Aseel was already exist in the original file(contact.txt) and now the user enters her name so automatically all of her information was deleted.

```
amany@amany-VirtualBox:~$ ./project_final.txt
Hello, could you please enter the name of the required file (contact.txt) :
contact.txt
Welcome to Amany khdair and Hadeel Abdellatif contact management system

        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
Enter the choice :
5
enter a word from line to delete it:
aseel
The data has been modified to:
First name, Last name, phone numbers, email
aziz, qarouch, 0987585753, aziz@birzeit.edu
amany, khdair, 0599802388, amany@gmail.com
hadeel, Abdellatif, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
```

The same as aseel the same as any word you entered like:

```
        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
Enter the choice :
5
enter a word from line to delete it:
aziz@birzeit.edu
The data has been modified to:
amany, khdair, 0599802388, amany@gmail.com
hadeel, Abdellatif, 0584933933, hadeel@gmail
katy, sadi, 0599806754, katy.sadi@gmail
```

If entered something not in the file then:

```
Enter the choice :
5
enter a word from line to delete it:
zena
word dose not exist
```

[0] exit:

```
        MAIN MENU
============================
[1] Add a new contact *~*
[2] List all contact *~*
[3] Search for contact *~*
[4] Edit a contact *~*
[5] Delete a contact *~*
[0] Exit *~*
============================
Enter the choice :
0
thanks for using our program :)
amany@amany-VirtualBox:~$
```

The code:

```
1 echo "Hello, could you please enter the name of the required file (contact.txt) ":
2 #save the file name to use it in the code..
3 read file
4
5 #if the entered name was the same as the given one then print the list
6 if test -f "$file"
7 then
8  echo "Welcome to Amany khdair and Hadeel Abdellatif contact management system"
9  echo
10 echo -e "\tMAIN MENU"
11 echo =============================
12 echo [1] Add a new contact *~*
13 echo [2] List all contact *~*
14 echo [3] Search for contact *~*
15 echo [4] Edit a contact *~*
16 echo [5] Delete a contact *~*
17 echo [0] Exit *~*
18 echo =============================
19 echo Enter the choice :
20 #we saved the user choice in respond
21 read respond
22
23 while [ "$respond" -gt 0 ]
24 do
25   #if the user chooses number 1
26   if [ "$respond" -eq 1 ]
27   then
28     echo please enter the first name
29     read firstName
30     echo please enter the last name
31     read lastName
32     echo please enter the email
33     read email
34     echo please enter the phone number
35     read phoneNumber
36
37     if [ -z "$firstName" ]
38     then
39       firstName=" "
40     fi
41
42     if [ -z "$lastName" ]
43     then
44       lastName=" "
45     fi
46
```

```bash
47    if [ -z "$email" ]
48    then
49      email=" "
50    fi
51    if [ -z "$phoneNumber" ]
52    then
53      echo please enter the phone number
54      read phoneNumber
55    fi
56    #to store the data into this file
57    echo $phoneNumber > testnum.txt
58    echo $email > testemail.txt
59
60    emailvar=$(grep -ci "@" testemail.txt)
61    numvar=$(grep -o [0-9] testnum.txt | wc -c)
62    numb=$(expr $numvar / 2)
63    if [ \( "$numb" -eq 9 -o "$numb" -eq 10 \) -a "$emailvar" != 0 ]
64    then
65      echo "$firstName, $lastName, $phoneNumber, $email" >> $file
66    echo your contacts are :
67    cat "$file"
68  else
69    echo ops! the information you entered are false or something missing please try again
70
71
72   echo
73    fi
74
75  #if the user chooses number 2
76  elif [ "$respond" -eq 2 ]
77  then
78   echo select what you want to list :
79   echo [1] First name*~*
80   echo [2] Last name*~*
81
82    echo Enter the choice :
83    #we saved the user choice in option
84    read option
85    if [ "$option" -eq 1 ]
86    then
87    #this statement will print the first part in the original file which is the first name
88     #awk -F ',' '{ print $1 }' $file
89     sort $file
90    elif [ "$option" -eq 2 ]
91    then
```

```bash
92    #this statement will print the second part in the original file which is the last name
93     #awk -F ',' '{ print $2 }' $file
94     sort -k 2 $file
95    fi
96
97    #if the user chooses number 3
98    elif [ "$respond" -eq 3 ]
99    then
100     tr ',' ' ' < $file | tr -s ' ' > newfile.txt
101     echo enter the word you want to search :
102     read search
103     word=$(grep -ci "$search" newfile.txt)
104     if [ "$word" -ne 0 ]
105     then
106      grep "$search" newfile.txt
107      else
108       echo word dose not exist
109     fi
110
111    #if the user chooses number 4
112    elif [ "$respond" -eq 4 ]
113    then
114     echo select what you want to edit :
115     echo [1] First name*~*
116     echo [2] Last name*~*
117     echo [3] Phone numbers *~*
118     echo [4] Email *~*
119
120     echo Enter the choice :
121     #we saved the user choice in option
122     read option
123     if [ "$option" -eq 1 ]
124     then
125      echo enter the word you want to edit :
126      read old
127      word=$(grep -ci "$old" $file)
128      if [ "$word" -ne 0 ]
129      then
130       echo enter the new data please
131       read new
132       echo "$new"
133       #cat $file
134       sed "s/$old/$new/g" "$file" > tempp.txt && mv tempp.txt "$file"
135       cat $file
136      else
```

```bash
137      echo word dose not exist
138    fi
139
140
141    elif [ "$option" -eq 2 ]
142    then
143     echo enter the word you want to edit :
144     read old
145     word=$(grep -ci "$old" $file)
146     if [ "$word" -ne 0 ]
147     then
148      echo enter the new data please
149      read new
150      echo "$new"
151      #cat $file
152      sed "s/$old/$new/g" "$file" > tempp.txt && mv tempp.txt "$file"
153      cat $file
154     else
155      echo word dose not exist
156     fi
157
158    elif [ "$option" -eq 3 ]
159    then
160     echo enter the word you want to edit :
161     read old
162     word=$(grep -ci "$old" $file)
163     if [ "$word" -ne 0 ]
164     then
165      echo enter the new data please
166      read new
167      echo "$new"
168      #cat $file
169      sed "s/$old/$new/g" "$file" > tempp.txt && mv tempp.txt "$file"
170      cat $file
171     else
172      echo word dose not exist
173     fi
174
175    elif [ "$option" -eq 4 ]
176    then
177     echo enter the word you want to edit :
178     read old
179     word=$(grep -ci "$old" $file)
180     if [ "$word" -ne 0 ]
181     then
```

```
181      then
182        echo enter the new data please
183        read new
184        echo "$new"
185        #cat $file
186        sed "s/$old/$new/g" "$file" > tempp.txt && mv tempp.txt "$file"
187        cat $file
188      else
189        echo word dose not exist
190      fi
191
192    fi
193
194     #if the user chooses number 5
195    elif [ "$respond" -eq 5 ]
196    then
197      echo enter a word from line to delete it:
198      read delete
199      word=$(grep -ci "$delete" $file)
200      if [ "$word" -ne 0 ]
201      then
202        grep -v $delete $file > newfile.txt
203        cp newfile.txt contact.txt
204        echo The data has been modified to:
205        cat $file
206      else
207        echo word dose not exist
208      fi
209    fi
210
211    echo
212    echo
213    echo -e "\tMAIN MENU"
214    echo ============================
215    echo [1] Add a new contact *~*
216    echo [2] List all contact *~*
217    echo [3] Search for contact *~*
218    echo [4] Edit a contact *~*
219    echo [5] Delete a contact *~*
220    echo [0] Exit *~*
221    echo ============================
222    echo Enter the choice :
223    read respond
224  done
225
226  if [ "$respond" -eq 0 ]
227  then
228    echo "thanks for using our program :)"
229  fi
230
231  else
232    echo "'$file'ops! the file you tried to enter doesn't exist :("
233  fi
234
```

And this was our report and project

We hope that every line is correct and as required.

Good Bye 😊 ❤️