

Project 1

Done by:

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First we have to enter the name file of the data

If the file is not exist error message occur

Data stored in contact.txt

```
abdallah@abdallah-VirtualBox: ~  
abdallah@abdallah-VirtualBox:~$ ./contact  
Enter the name of the contact file: aa  
Cannot read the file!  
abdallah@abdallah-VirtualBox:~$ ./contact  
Enter the name of the contact file: contact.txt
```

```
abdallah@abdallah-VirtualBox: ~  
***** Welcome to Contact Managment System *****  
  
MAIN MENU  
-----  
[1] Add a new contact  
[2] list all contacts  
[3] Search for a contact  
[4] Edit a contact  
[5] Delete a contact  
[6] Exit  
-----  
Enter youre choice:
```

If you enter an illegal input you will get a message to re-enter in all stages

```
abdallah@abdallah-VirtualBox: ~  
***** Welcome to Contact Managment System *****  
  
          MAIN MENU  
          -----  
          [1] Add a new contact  
          [2] list all contacts  
          [3] Search for a contact  
          [4] Edit a contact  
          [5] Delete a contact  
          [6] Exit  
          -----  
          Enter youre choice: 0  
Not correct!  
Enter from 1 to 6: 1
```

```
abdallah@abdallah-VirtualBox: ~  
  
First name: abdallah  
Last name: mohammad  
Phone number: 0569990001  
Email: aa  
Not correct!  
Pleas enter a correct email:
```

1) First name required be entered whatever the input

There no conditions for last name

The number should be 10 digits and it's required

Email have to contains a '@' symbol and it's not required

```
abdallah@abdallah-VirtualBox: ~  
First name: mohammad  
Last name:  
Phone number: 9999  
Not correct!  
Pleas enter a correct number: 1111111111  
Email: m11@mail.com
```

```
***** Welcome to Contact Managment System *****
```

```
MAIN MENU
```

- ```

[1] Add a new contact
[2] list all contacts
[3] Search for a contact
[4] Edit a contact
[5] Delete a contact
[6] Exit

```

```
Enter youre choice: 2
```

2) If the input contains 'n' the number will be displayed, 'e' email will be displayed. If the second input equal 'f' the contacts will be stored by first name, 'l' by last name, otherwise the contacts will be displayed without sorting (you can just enter without input)

```
abdallah@abdallah-VirtualBox: ~
Enter the proper characters to get the required fields (n: number, e: email
, ne: both): en
Enter the proper character to sort cotacts by (f: first name, l: last name,
otherwise: unsorted): l
```

```
abdallah@abdallah-VirtualBox: ~
***** List Contacts *****
mohammad, , 1111111111, m11@mail.com
abd, , 7654322098, tr179@yahoo.com
mahmood, atia, 9876543210, atia2@mail.com
rula, hammam, 7668765432, ruahm000@yahoo.com
rami, khalid, 0009998887, khalid3@gmail.com
abdallah, mohammad, 0569990001,

Tap ENTER to continue

```

```
abdallah@abdallah-VirtualBox: ~
Enter the proper characters to get the required fields (n: number, e: email
, ne: both): n
Enter the proper character to sort cotacts by (f: first name, l: last name,
otherwise: unsorted): F
```

```
***** List Contacts *****
abd, , 7654322098
abdallah, mohammad, 0569990001
mahmood, atia, 9876543210
mohammad, , 1111111111
rami, khalid, 0009998887
rula, hammam, 7668765432

Tap ENTER to continue
```

```
abdallah@abdallah-VirtualBox: ~
**** Welcome to Contact Managment System ****

 MAIN MENU

 [1] Add a new contact
 [2] list all contacts
 [3] Search for a contact
 [4] Edit a contact
 [5] Delete a contact
 [6] Exit

 Enter youre choice: 3
```

3) Enter the name you want, to get the contacts that has the same name. After that you can see the output until you tap “enter”

```
abdallah@abdallah-VirtualBox: ~
Enter the Name of the contact that you want to find him: abdallah mohammad
***** name found *****
5:abdallah mohammad 0569990001

Enter to continue
```

```
abdallah@abdallah-VirtualBox: ~
Enter the Name of the contact that you want to find him: mahmood
***** name found *****
1:mahmood atia 9876543210 atia2@mail.com

Enter to continue
```

```
***** Welcome to Contact Managment System *****

 MAIN MENU

 [1] Add a new contact
 [2] list all contacts
 [3] Search for a contact
 [4] Edit a contact
 [5] Delete a contact
 [6] Exit

Enter youre choice: 4
```

4) First, enter the contact listed number like you see below, if the input is out of the range, enter again. Second step, enter the field number (first: 1, last: 2, number: 3, email: 4) otherwise enter again.

```
abdallah@abdallah-VirtualBox: ~
***** Choose contacts *****
1 mahmood, atia, 9876543210, atia2@mail.com
2 abd, , 7654322098, tr179@yahoo.com
3 rami, khalid, 0009998887, khalid3@gmail.com
4 rula, hammam, 7668765432, ruahm000@yahoo.com
5 abdallah, mohammad, 0569990001,
6 mohammad, , 1111111111, m11@mail.com

Choose the contact that you want to Edit: 5
Enter the field number: 5
Pleas enter a number between 1 to 4: 4
Enter the new value: abdallah123@mail.bzu
```

Last step, enter the new value in correct format or you will have to enter the value again

```
abdallah@abdallah-VirtualBox: ~
***** Choose contacts *****
1 mahmood, atia, 9876543210, atia2@mail.com
2 abd, , 7654322098, tr179@yahoo.com
3 rami, khalid, 0009998887, khalid3@gmail.com
4 rula, hammam, 7668765432, ruahm000@yahoo.com
5 abdallah, mohammad, 0569990001, abdallah123@mail.bzu
6 mohammad, , 1111111111, m11@mail.com

Choose the contact that you want to Edit: 0
Please enter a number between 1 to 6: 2
Enter the field number: 1
Enter the new value: huda
```

Using second choice (list all contacts) to see the changes

```
abdallah@abdallah-VirtualBox: ~
***** List Contacts *****
mahmood, atia, 9876543210, atia2@mail.com
huda, , 7654322098, tr179@yahoo.com
rami, khalid, 0009998887, khalid3@gmail.com
rula, hammam, 7668765432, ruahm000@yahoo.com
abdallah, mohammad, 0569990001, abdallah123@mail.bzu
mohammad, , 1111111111, m11@mail.com

Tap ENTER to continue
█
```



```
abdallah@abdallah-VirtualBox: ~
***** Welcome to Contact Managment System *****

MAIN MENU

[1] Add a new contact
[2] list all contacts
[3] Search for a contact
[4] Edit a contact
[5] Delete a contact
[6] Exit

Enter youre choice: 5
```

5) Just enter the number of the line to delete the contact

```
abdallah@abdallah-VirtualBox: ~
***** Choose contacts *****
1 mahmood, atia, 9876543210, atia2@mail.com
2 huda, , 7654322098, tr179@yahoo.com
3 rami, khalid, 0009998887, khalid3@gmail.com
4 rula, hammam, 7668765432, ruahm000@yahoo.com
5 abdallah, mohammad, 0569990001, abdallah123@mail.bzu
6 mohammad, , 1111111111, m11@mail.com

Chose the contact that you whant to delet: 9
Pleas enter a number between 1 to 6: 3
```

```
abdallah@abdallah-VirtualBox: ~
***** Choose contacts *****
1 mahmood, atia, 9876543210, atia2@mail.com
2 huda, , 7654322098, tr179@yahoo.com
3 rula, hammam, 7668765432, ruahm000@yahoo.com
4 abdallah, mohammad, 0569990001, abdallah123@mail.bzu
5 mohammad, , 1111111111, m11@mail.com

Chose the contact that you want to delet: 5
```

```
abdallah@abdallah-VirtualBox: ~
***** List Contacts *****
mahmood, atia, 9876543210, atia2@mail.com
huda, , 7654322098, tr179@yahoo.com
rula, hammam, 7668765432, ruahm000@yahoo.com
abdallah, mohammad, 0569990001, abdallah123@mail.bzu

Tap ENTER to continue
```

6) Just Exit ^\_^

```
***** Welcome to Contact Managment System *****

 MAIN MENU

 [1] Add a new contact
 [2] list all contacts
 [3] Search for a contact
 [4] Edit a contact
 [5] Delete a contact
 [6] Exit

 Enter youre choice: 6
abdallah@abdallah-VirtualBox:~$
```

# code

```
#!/bin/bash
```

```
echo -n "Enter the name of the contact file: "
```

```
read fileName
```

```
if [! -r "$fileName"]
```

```
then
```

```
 echo "Cannot read the file!"
```

```
 exit 1
```

```
fi
```

```
#go to line 260 "the last of the code" if you want to get a top view
```

```
menu() {
```

```
 clear -x #to clear every thing befor display the menu
```

```
 echo "***** Welcome to Contact Managment System *****"
```

```
 printf "\n%15sMAIN MENU\n" " "
```

```
 printf "%10c-----\n" " "
```

```
 printf "%10c[1] Add a new contact\n" " "
```

```
 printf "%10c[2] list all contacts\n" " "
```

```
 printf "%10c[3] Search for a contact\n" " "
```

```
 printf "%10c[4] Edit a contact\n" " "
```

```
 printf "%10c[5] Delete a contact\n" " "
```

```
 printf "%10c[6] Exit\n" " "
```

```
 printf "%10c-----\n" " "
```

```
 printf "%10cEnter youre choice: " " "
```

```
read choice
}
```

```
addContact() {

 clear -x

 echo -n "First name: "

 read firstName

 #To make sure that first name was entered

 until ["$firstName"]

 do

 echo -n "Pleas enter the first name: "

 read firstName

 done

 echo -n "Last name: "

 read lastName

 echo -n "Phone number: "

 read phoneNumber

 #To make sure that phone number is correct

 while [! $(echo "$phoneNumber" | grep '^([0-9]{10})$') > /dev/null]

 do

 echo Not correct!

 echo -n "Pleas enter a correct number: "

 read phoneNumber
```

```
done
```

```
echo -n "Email: "
```

```
read email
```

```
#To make sure that email is correct or there no email
```

```
while ["$email"]
```

```
do
```

```
if [$(echo "$email" | grep '@') > /dev/null]
```

```
then
```

```
break
```

```
fi
```

```
echo Not correct!
```

```
echo -n "Pleas enter a correct email: "
```

```
read email
```

```
done
```

```
echo "$firstName, $lastName, $phoneNumber, $email" >> $fileName
```

```
}
```

```
listContact() {
```

```
clear -x
```

```
printf "Enter the proper characters to get the required fields (n: number, e: email, ne: both): "
```

```
field=""
```

```
read op
```

```
#cheek what is the option entered then add the proper field in 'field' var
```

```

if [$(echo "$op" | grep '[Nn]') > /dev/null]
then
 field=',3'
fi

if [$(echo "$op" | grep '[Ee]') > /dev/null]
then
 field="$field,4"
fi

printf "Enter the proper character to sort cotacts by (f: first name, l: last name, otherwise: unsorted): "
name=""

read name

clear -x

printf "***** List Contacts *****\n"

if [! "$name"]
then
 cat contact.txt
elif [$name == "f" -o $name == "F"]
then
 cut -d',' -f1,2"$field" $fileName | sort -k 1 #sort by first column (first name)
elif [$name == "l" -o $name == "L"]
then
 cut -d',' -f1,2"$field" $fileName | sort -k 2 #sort by second column (last name)
else
 cut -d',' -f1,2 $fileName
fi

```

```
printf "*****\n"
echo "Tap ENTER to continue" #this is to let you see the result befor go to the menu
read g #g --> garbage
}
```

```
search(){
clear -x

echo -n "Enter the Name of the contact that you want to find him: "

read name

if ! grep -Fxq "$name" contact.txt;
then
echo "***** name found *****"
else
echo "***** name not found *****"
fi

cat contact.txt | tr -d ',' | grep -n "$name"

#display the line with wanted name without ','
#where some time we want to find with full name and ',' make a problem
#so ',' removed by tr -d ','

printf "*****\n"

echo "Enter to continue"

read g
}
```

```
edit() {
```

```

clear -x

echo "***** Choose contacts *****"

cat -n $fileName

echo "*****"

echo -n "Choose the contact that you want to Edit: "

read num

#check if the number is in the range or not
rang=$(wc -l contact.txt | cut -d' ' -f1)

until []
do

 if ["$(echo "$num" | grep "^ *[0-9][0-9]*$")"]
 then
 if ["$num" -le $rang -a "$num" -ge 1]
 then
 break
 fi
 fi

 echo -n "Please enter a number between 1 to $rang: "

 read num

done

#check if the field is in the range or not
echo -n "Enter the field number: "

read field

until []
do

```



```
if ["$(echo "$num" | grep "^ *[0-9][0-9]*$")"]
then
 if ["$field" -le 4 -a "$field" -ge 1]
 then
 break
 fi
fi

echo -n "Pleas enter a number between 1 to 4: "

read field

done

echo -n "Enter the new value: "

read new

touch temp.txt

i=1

line=$(sed -n "1p" $fileName) #in the beginning, get the first line

while ["$line"]

do

 #if this line is not the line that we want to edit. save it in temp.txt directly

 if [$i -ne $num]

 then

 echo "$line" >> temp.txt

 else

 j=1

 temp=""
```

```

while [$j -le 4]

do

 #if this field is not the field that we want to edit. concat it with temp directly

 if [$j -ne $field]

 then

 temp="$temp$(echo -n "$line" | cut -d',' "-f$j")"

 else # $field==1 then is first name, 2 --> last name, 3 --> number, 4 --> email

 if [$j -eq 1]

 #if the required field equals 1, then cheek the new first name

 #and make temp="$new" because it's the first field

 then

 until ["$new"]

 do

 echo -n "Pleas enter the first name: "

 read new

 done

 temp="$new"

 else

 #if the required field 2, no need to cheek but when 3,4 you need to cheek

 #after that concat 'temp' with 'new'

 case "$field"

 in

 3) while [! $(echo "$new" | grep '^[0-9]\{10\}$') > /dev/null]

 do

 echo -n "Pleas enter a correct number: "

```

```

 read new

done;;

4) while ["$email"]

do

 if [$(echo "$email" | grep '@') > /dev/null]

 then

 break

 fi

 echo Not correct!

 echo -n "Pleas enter a correct email: "

 read email

done

esac

temp="$temp $new"

fi

fi

if [$j -ne 4]

#after finishing adding the field whatever it's required field or not

#if this not the last field, concat temp with ','

then

 temp="$temp,"

fi

j=$((j+1))

done

echo "$temp" >> temp.txt #write the modified contact to temp.txt

```

```

fi

i=$((i+1))

line=$(sed -n "$i p" $fileName) #read the next line

done

cat temp.txt > $fileName #write the modified contacts over the contacts file

rm temp.txt

}

delete() {

clear -x

echo "***** Choose contacts *****"

cat -n $fileName

echo "*****"

echo -n "Chose the contact that you whant to delet: "

read num

#chaek if the number is in the range or not

rang=$(wc -l contact.txt | cut -d' ' -f1)

until []

do

if ["$(echo "$num" | grep "^ *[0-9][0-9]*$")"]

then

if ["$num" -le $rang -a "$num" -ge 1]

then

break

fi

```

```

fi

echo -n "Pleas enter a number between 1 to $rang: "

read num

done

touch temp.txt

i=1

line=$(sed -n "1p" $fileName)

while ["$line"]

do

 if [$i -ne $num]

 #if the contact(line) we read is not the contact that we want to delete then add it to temp file

 then

 echo "$line" >> temp.txt

 fi

 i=$((i+1))

 line=$(sed -n "$i p" $fileName)

 done

 cat temp.txt > $fileName

 rm temp.txt

}

line 260

#here we use the functions above

choice=

until ["$choice" = 6]

```

```
do
 menu
 until [$(echo "$choice" | grep "^[1-6]$") > /dev/null]
 do
 echo "Not correct!"
 echo -n "Enter from 1 to 6: "
 read choice
 done
 case "$choice"
 in
 1) addContact;;
 2) listContact;;
 3) search;;
 4) edit;;
 5) delete;;
 esac
done
```