# First Project Report

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# 1-validation of the file :

Code :

```bash
#!/bin/bash
#check if th file is exist or not
printf "please enter the name of the file, if u want exit enter -1\n"
read filename
while [ ! -e $filename ]
do
        printf "the file does not exist please enter the file name again or -1 to exit from the program\n"
        read filename
if [ $filename -eq "-1" ]
then
        printf "Good Bye\n"
        sleep 2
        exit -1
fi
done
#loop for the menu for usier to chose from it
```

If the file does not exist the program will show this error message :

```
please enter the name of the file, if u want exit enter -1
sdfsdfsdf
the file does not exist please enter the file name again or -1 to exit from the program
```

If the file exist the program will start :

```
brdaheem@braheem-VirtualBox:~/Desktop$ ./code
please enter the name of the file, if u want exit enter -1
sdfsdfsdf
the file does not exist please enter the file name again or -1 to exit from the program
filename
./code: line 9: [: filename: integer expression expected


        ****welcome to contact manegment system****


                        MAIN MENU


        ================================================

        [1]Add new contact
        [2]List all the contact
        [3]Search for contact
        [4]Edit a contact
        [5]Delete a contact
        [0]exit from the program


        ================================================

        Enter the choice :
```

Text file :

```
1 first name, last name, phone numbers, email
2 ibrahem,0,0599111111,uuu@rrrr
3 qutayba,olayan,0592123123,jksdfksdf@
4 ibr, 0, 042468701, 0
5 qut,0,123123123,swat@r.com
6 moh,deek,0599769943,moh@gmail.com
```

## Part one : Add a new contact :

Code :

```
42 elif [ $choice -eq 1 ]
43 then
44        #ask to enter the first name
45        printf "Enter First Name: \n"
46        read firstname
47        #ask for the numbers of phone number that the user want to enter
48        num=""
49        printf "How much phone u want to enter \n"
50        read count
51        for (( i=0 ; i < count ; i++ ))
52        do
53
54                while true
55                do
56                        #check if the number is already in the file
57                        printf " enter the %d phone \n" $((i+1))
58                        read n
59                        cut -d',' -f3 $filename | grep $n > /dev/null
60                        u=$?
61                        if [[ u -eq 0 ]]
62                        then
63                        printf "the number you enter is already in the file,please enter valid one\n\n"
64                        continue
65                        fi
66                        #check if the number is only digits and 9 or 10 digits only
67                        if echo $n | grep "\<[0-9]\{9,10\}\>" > /dev/null
68                        then
69                                if [ $i -eq $((count-1)) ]
70                                then
71                                        num+=$n
72                                        break
73                                else
74                                        num+=$n
75                                        num+=";"
76                                        break
77                                fi
78                        else
79                                printf " u should enter correct number with 9 digits \n"
80                                continue
81                        fi
82
83                done
84        done
```

2

```bash
85
86          email="0"
87          printf " if u want enter an email write 1, else -1\n"
88          read c
89          if [ $c -eq 1 ]
90          then
91                  while true
92                          do
93                                  #ask to enter the email
94                                  printf " enter the email \n"
95                                  read em
96                                  #hceck if the email is already in the file
97                                  cut -d',' -f4 $filename | grep $em > /dev/null
98                                  u=$?
99                                  if [[ u -eq 0 ]]
100                                 then
101                                 printf "the email you enter is already in the file,please enter valid one\n\n"
102                                 continue
103                                 fi
104                                 #check the validation of the email
105                                 if echo $em | grep ".*@.*" > /dev/null
106                                 then
107                                         email=$em
108                                         break
109                                 else
110                                         printf "you should enter correct email\n"
111                                         continue
112                                 fi
113
114                         done
115         else
116                 :
117         fi
118         #ask to enter the las name
119         lastname="0"
120         printf " if u want enter an last name write 1, else -1\n"
121         read c
122         if [ $c -eq 1 ]
123         then
124                 printf " enter the last name \n"
125                 read nm
126                 lastname=$nm
127         else
128                 :


115         else
116                 :
117         fi
118         #ask to enter the las name
119         lastname="0"
120         printf " if u want enter an last name write 1, else -1\n"
121         read c
122         if [ $c -eq 1 ]
123         then
124                 printf " enter the last name \n"
125                 read nm
126                 lastname=$nm
127         else
128                 :
129         fi
130
131
132         printf "%s, %s, %s, %s\n" $firstname $lastname $num $email >> $filename
133         cat $filename
134
135 fi
```

3

All result for the code above :

```
1
Enter First Name:
ibraheem
How much phone u want to enter
1
 enter the 1 phone
0592717168
the number you enter is already in the file,please enter valid one

 enter the 1 phone
123
 u should enter correct number with 9 or 10 digits
 enter the 1 phone
123123123123
 u should enter correct number with 9 or 10 digits
 enter the 1 phone
0598666666
 if u want enter an email write 1, else -1
1
 enter the email
ibrahem@yahoo.com
the email you enter is already in the file,please enter valid one

 enter the email
adasdasdasd
you should enter correct email
 enter the email
ib@m.com
 if u want enter an last name write 1, else -1
-1


the file after adding the new contact is :

first name, last name, phone numbers, email
ibrahem, duhidi, 0592717168, ibrahem@yahoo.com
ibrahem,duhidi,0592717168,ibraheem@yahoo.com
ibrahem,0,0599111111,0
qutayba,olayan,0592123123,ibr@gmail.com
swat,0,246823612,swat@yahoo.com
ibr, 0, 042468701, 0
qut,0,123123123,swat@r.com
moh,0,0599769943,moh@gmail.com
ibrahem, 0, 0598111111, ibrahem@i.com
ibraheem, 0, 0597123123, ibr@g.com
ibraheem, duhidi, 0597111111, ibr@d.com
ibraheem, 0, 0505777777, e@ya.com
ibraheem, 0, 0598666666, ib@m.com
```

## Part two : list the contact :

Code :

```
143 #choice 2 is to list the contact
144 if [ $choice -eq 2 ]
145 then
146        #delete the first line from the input file and sent it to temp
147        sed   "1d" $filename > temp
148        #convert the , to spaces
149        tr ',' ' ' < temp > temp1
150        #remove the consecuntive spaces
151        tr -s ' ' ' ' < temp1 > temp
152        #coice 1 is to sort by name and 2 is to sort by the last name
153        printf " sort by first name: 1, sort by last name: 2\n"
154        read so
155        if [ $so -eq 1 ]
156        then
157                sort -k 1 < temp > temp1
158                cat temp1 > temp
159                one=1
160                two=1
161                three=1
162                four=1
163                #let the user chose the fields he want to print with the first name
164                printf " if u want last name enter 1, else -1\n"
165                read h
166                if [ $h -eq 1 ]
167                then
168                        two=2
169                fi
170                printf " if u want numbers enter 1, else -1\n"
171                read h
172                if [ $h -eq 1 ]
173                then
174                        three=3
175                fi
176                printf " if u want email enter 1, else -1\n"
177                read h
178                if [ $h -eq 1 ]
179                then
180                        four=4
181                fi
182
183                cut -d' ' -f$one,$two,$three,$four temp
184
185        elif [ $so -eq 2 ]
186        then
187        #let the user chose the fileds he want to print with the last name
188                sort -k 2 < temp > temp1
```

```
189              cat temp1 > temp
190              one=2
191              two=2
192              three=2
193              four=2
194
195              printf " if u want first name enter 1, else -1\n"
196              read h
197              if [ $h -eq 1 ]
198              then
199                      one=1
200              fi
201              printf " if u want numbers enter 1, else -1\n"
202              read h
203              if [ $h -eq 1 ]
204              then
205                      three=3
206              fi
207              printf " if u want email enter 1, else -1\n"
208              read h
209              if [ $h -eq 1 ]
210              then
211                      four=4
212              fi
213
214              cut -d' ' -f$one,$two,$three,$four temp
215
216
217      else
218              printf " wrong choice [1-2] \n"
219
220      fi
```

Results :

```
==============================================

        Enter the choice :
2
 sort by first name: 1, sort by last name: 2
2
 if u want first name enter 1, else -1
1
 if u want numbers enter 1, else -1
-1
 if u want email enter 1, else -1
-1


the sorted contact by the last name is :

ibr 0
ibraheem 0
ibraheem 0
ibrahem 0
ibraheem 0
ibrahem 0
moh 0
qut 0
swat 0
ibrahem duhidi
ibrahem duhidi
ibraheem duhidi
qutayba olayan
```

```
        Enter the choice :
2
 sort by first name: 1, sort by last name: 2
1
 if u want last name enter 1, else -1
1
 if u want numbers enter 1, else -1
1
 if u want email enter 1, else -1
1


the sorted contact by the first name is :

ibr 0 042468701 0
ibraheem 0 0505777777 e@ya.com
ibraheem 0 0597123123 ibr@g.com
ibraheem 0 0598666666 ib@m.com
ibraheem duhidi 0597111111 ibr@d.com
ibrahem 0 0598111111 ibrahem@i.com
ibrahem 0 0599111111 0
ibrahem duhidi 0592717168 ibraheem@yahoo.com
ibrahem duhidi 0592717168 ibrahem@yahoo.com
moh 0 0599769943 moh@gmail.com
qut 0 123123123 swat@r.com
qutayba olayan 0592123123 ibr@gmail.com
swat 0 246823612 swat@yahoo.com
```

```
        Enter the choice :
2
 sort by first name: 1, sort by last name: 2
1
 if u want last name enter 1, else -1
-1
 if u want numbers enter 1, else -1
-1
 if u want email enter 1, else -1
1


the sorted contact by the first name is :

ibr 0
ibraheem e@ya.com
ibraheem ibr@g.com
ibraheem ib@m.com
ibraheem ibr@d.com
ibrahem ibrahem@i.com
ibrahem 0
ibrahem ibraheem@yahoo.com
ibrahem ibrahem@yahoo.com
moh moh@gmail.com
qut swat@r.com
qutayba ibr@gmail.com
```

# Part 3 : search for a contact :

Code :

```
#search for the contact
elif [ $choice -eq 3 ]
then
        f=""
        s=""
        t=""
        fo=""
        #chose which fields the user want to search
                printf " if u want search first name enter 1, else -1\n"
                read h
                if [ $h -eq 1 ]
                then
                        printf " enter the first name:\n"
                        read f

                fi
                printf " if u want search last name enter 1, else -1\n"
                read h
                if [ $h -eq 1 ]
                then
                        printf " enter the last name:\n"
                        read s

                fi
                printf " if u want search numbers enter 1, else -1\n"
                read h
                if [ $h -eq 1 ]
                then
                        printf " enter the number:\n"
                        read t

                fi
                printf " if u want search email enter 1, else -1\n"
                read h
                if [ $h -eq 1 ]
                then
                        printf " enter the email:\n"
                        read fo
                fi
                #if the user does not chose any field then the program will print error messege
                if [ "$f" == "" ] && [ "$s" == "" ] && [ "$t" == "" ] && [ "$fo" == "" ]
                then
                printf "please enter one or more fildes you wnat to search\n"
```

```
260                #if the user does not chose any field then the program will print error messege
261                if [ "$f" == "" ] && [ "$s" == "" ] && [ "$t" == "" ] && [ "$fo" == "" ]
262                then
263                printf "please enter one or more fildes you wnat to search\n"
264                else
265                #search for the fields chosen by user above
266                        printf "\nthe result is : \n\n"
267                        grep .*"$f".*"$s".*"$t".*"$fo".* $filename || printf " It not exist \n"
268                        printf "\n\n"
269                fi
270                f=""
271                s=""
272                t=""
273                fo=""
274 #edit a contact info
```

Result :

```
          Enter the choice :
3
 if u want search first name enter 1, else -1
1
 enter the first name:
ibrahem
 if u want search last name enter 1, else -1
-1
 if u want search numbers enter 1, else -1
1
 enter the number:
0592717168
 if u want search email enter 1, else -1
-1

the result is :

ibrahem, duhidi, 0592717168, ibrahem@yahoo.com
```

```
          Enter the choice :
3
 if u want search first name enter 1, else -1
-1
 if u want search last name enter 1, else -1
-1
 if u want search numbers enter 1, else -1
-1
 if u want search email enter 1, else -1
1
 enter the email:
yahoo

the result is :

ibrahem, duhidi, 0592717168, ibrahem@yahoo.com
swat,0,246823612,swat@yahoo.com
```

11

```
            Enter the choice :
3
 if u want search first name enter 1, else -1
-1
 if u want search last name enter 1, else -1
1
 enter the last name:
duhidi
 if u want search numbers enter 1, else -1
-1
 if u want search email enter 1, else -1
1
 enter the email:
yahoo

the result is :

ibrahem,duhidi, 0592717168, ibrahem@yahoo.com
```

```
            Enter the choice :
3
 if u want search first name enter 1, else -1
1
 enter the first name:
ibra
 if u want search last name enter 1, else -1
-1
 if u want search numbers enter 1, else -1
-1
 if u want search email enter 1, else -1
1
 enter the email:
yahoo

the result is :

ibrahem, duhidi, 0592717168, ibrahem@yahoo.com
```

```
        Enter the choice :
3
 if u want search first name enter 1, else -1
-1
 if u want search last name enter 1, else -1
-1
 if u want search numbers enter 1, else -1
-1
 if u want search email enter 1, else -1
-1
please enter one or more fildes you wnat to search
```

## Part four : edit a contact :

Code :

```
elif [ $ch -eq 4 ]
then

        while true
                do
                        printf " enter the email \n"
                        read new
                        cut -d',' -f4 $filename | grep "\<$new\>" > /dev/null
                        u=$?
                        if [[ u -eq 0 ]]
                        then
                        printf "the email you enter is already in the file,please enter valid one\n\n"
                        continue
                        fi
                        if echo $new | grep ".*@.*" > /dev/null
                        then
                                break
                        else
                                printf "you should enter correct email\n"
                                continue
                        fi

                done
        else
        #read the new value
                read new
        fi
        y=$(wc -l temp | cut -d' ' -f1)
        echo $y
        #put the edited contact in the same place as old and delete the old one
        if [[ $((l)) -eq $y ]]
        then
                printf "\n" >> filename
                sed -i "$ch s/$o/$new/g" temp3
                sed -i $((l+1))d $filename
                sed "$((l+1)) i "$(paste -s -d',' temp3)"" $filename > temp4
                grep -v '^[[:space:]]*$' temp4 > y
                cat y > temp4
        else
```

14

```
else
#read the new value
        read new
fi
y=$(wc -l temp | cut -d' ' -f1)
echo $y
#put the edited contact in the same place as old and delete the old one
if [[ $((l)) -eq $y ]]
then
        printf "\n" >> filename
        sed -i "$ch s/$o/$new/g" temp3
        sed -i $((l+1))d $filename
        sed "$((l+1)) i "$(paste -s -d',' temp3)"" $filename > temp4
        grep -v '^[[:space:]]*$' temp4 > y
        cat y > temp4
else
        sed -i "$ch s/$o/$new/g" temp3
        sed -i $((l+1))d $filename
        sed "$((l+1)) i "$(paste -s -d',' temp3)"" $filename > temp4
fi

cat temp4 > $filename
printf "\n\nthe file after editing : \n\n"
cat $filename
printf "\n\n"
elete contact info from the file
```

15

```
        Enter the choice :
4
     1   ibrahem duhidi 0592717168 i@y.com
     2   ibrahem 0 0599111111 0
     3   qutayba olayan 0592123123 ibr@gmail.com
     4   swat 0 246823612 swat@yahoo.com
     5   ibr 0 042468701 0
     6   qut 0 123123123 swat@r.com
     7   moh deek 0599769943 moh@gmail.com
     8   eeee 0 0598111111 ibrahem@i.com


enter which contact you want to change
8
enter which field u want to change
1.first name
2.last name
3.phones number
4.email
1
please enter the new value for the field
rrr
8


the file after editing :

first name, last name, phone numbers, email
ibrahem,duhidi,0592717168,i@y.com
ibrahem,0,0599111111,0
qutayba,olayan,0592123123,ibr@gmail.com
swat,0,246823612,swat@yahoo.com
ibr, 0, 042468701, 0
qut,0,123123123,swat@r.com
moh,deek,0599769943,moh@gmail.com
rrr,0,0598111111,ibrahem@i.com
```

```
        Enter the choice :
4

     1   ibrahem duhidi 0592717168 i@y.com
     2   ibrahem 0 0599111111 0
     3   qutayba olayan 0592123123 jksdfksdf@
     4   swat 0 246823612 swat@yahoo.com
     5   ibr 0 042468701 0
     6   qut 0 123123123 swat@r.com
     7   moh deek 0599769943 moh@gmail.com
     8   rrr 0 0598111111 ibrahem@i.com


enter which contact you want to change
2
enter which field u want to change
1.first name
2.last name
3.phones number
4.email
4
please enter the new value for the field
 enter the email
uuu@rrrr
8


the file after editing :

first name, last name, phone numbers, email
ibrahem,duhidi,0592717168,i@y.com
ibrahem,0,0599111111,uuu@rrrr
qutayba,olayan,0592123123,jksdfksdf@
swat,0,246823612,swat@yahoo.com
ibr, 0, 042468701, 0
qut,0,123123123,swat@r.com
moh,deek,0599769943,moh@gmail.com
rrr,0,0598111111,ibrahem@i.com
```

## Part five : delete contact :

Code :

```
#delete the first line from input file and let the useer chose which he want to delete
    cat $filename | sed 1d > temp
    cat -n temp
    printf "\nenter whice contact you want to delete \n"
    read line
    #delete the contact
    sed $((line+1))d $filename
    printf "\n\nthe file after deleting the contact : \n\n"
    cat $filename
    printf "\n\n"
fi
fi
```

Result :

```
        Enter the choice :
5

    1   ibrahem,duhidi,0592717168,i@y.com
    2   ibrahem,0,0599111111,uuu@rrrr
    3   qutayba,olayan,0592123123,jksdfksdf@
    4   ibr, 0, 042468701, 0
    5   qut,0,123123123,swat@r.com
    6   moh,deek,0599769943,moh@gmail.com

enter whice contact you want to delete
1


the file after deleting the contact :

first name, last name, phone numbers, email
ibrahem,0,0599111111,uuu@rrrr
qutayba,olayan,0592123123,jksdfksdf@
ibr, 0, 042468701, 0
qut,0,123123123,swat@r.com
moh,deek,0599769943,moh@gmail.com
```

```
        Enter the choice :
5
    1   ibrahem,duhidi,0592717168,i@y.com
    2   ibrahem,0,0599111111,uuu@rrrr
    3   qutayba,olayan,0592123123,jksdfksdf@
    4   swat,0,246823612,swat@yahoo.com
    5   ibr, 0, 042468701, 0
    6   qut,0,123123123,swat@r.com
    7   moh,deek,0599769943,moh@gmail.com

enter whice contact you want to delete
4


the file after deleting the contact :

first name, last name, phone numbers, email
ibrahem,duhidi,0592717168,i@y.com
ibrahem,0,0599111111,uuu@rrrr
qutayba,olayan,0592123123,jksdfksdf@
ibr, 0, 042468701, 0
qut,0,123123123,swat@r.com
moh,deek,0599769943,moh@gmail.com
```