```
#!/bin/bash
clear
c=0
Arr=()
       #Array for names
Number=() #Array for first Number
Number2=() #Array for the second Number
c2 = 0
             #flag For Delete all option
DelteAll=0
#read contacts from phonebookDB.txt
input=~/phonebookDB.txt
if [ -e ~/phonebookDB.txt ]
then
      echo "The file is exist"
     while IFS= read -r line
      do
            line="$(echo "$line"|tr -d '\n')"
            if [[ $c == 0 ]]
            then
                  #first line name
                 Arr[$c2]="$line"
                 c=$[$c+1]
            elif [[ $c == 1 ]]
            then
                 #second line Number 1
                 Number[$c2]="$line"
                 c=$[$c+1]
            elif [[ $c == 2 ]]
            then
                  #third line Number 2
                 Number2[$c2]="$line"
                 c=$[$c-2]
                  c2=$[$c2+1]
            fi
      done < "$input"</pre>
else
      echo "The file is not exist"
fi
#####################
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continue=1
skip=1
if [[ $1 == '-v' ]]
then
     echo "view ALL"
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elif [[ $1 == '-i' ]]
then
     echo "Insert contact"
     choose=1
elif [[ $1 == '-e' ]]
then
     echo "Delete ALL"
     choose=4
elif [[ $1 == '-d' ]]
then
     echo "Delete by Name"
     choose=2
elif [[ $1 == '-s' ]]
then
     echo "Search by Name"
     choose=5
else
     echo "No extention used"
     skip=0;
fi
while [ $continue == 1 ];
do
     if [[ $skip == 0 ]]
     then
           echo "*****************************
           echo "Plz chose mode"
           echo "1) Add Contact"
           echo "2) Remove Contact"
           echo "3) View All"
           echo "4) Delete All"
           echo "5) Search By Name"
           echo "6) Exit"
           read -p "Plz enter Choice: " choose
     fi
if [[ $choose == 1 ]];
then
     clear
     echo "Add Contact"
     read -p "Plz enter Name: " AddedName
     read -p "Plz enter Number: " AddedNumber
     req='^[0-9]{8};
     while [[ ! AddedNumber = ^(0-9)+ ]] #the number must be a
digit
     do
           read -p "Plz enter a valid number: " AddedNumber
     done
     read -p "Do you want to enter second Number y or n: " ch
     if [[ $ch == 'y' ]]
     then
     read -p "Plz enter Number 2: " AddedNumber2
     while [[ ! AddedNumber2 = ^[0-9]+ ]]
     do
           read -p "Plz enter a valid number: " AddedNumber2
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done
      else
            AddedNumber2=-1 #if there isn't number 2
      fi
      f=1
      for item in ${Arr[*]}
      do
            if [[ $item == $AddedName ]]
                  then
                  echo "Found a name"
                  f=0
            fi
      done
      if [[ $f == 1 ]]
      then
            #insert contact in the 3 arrays names and number 1 number 2
            size=${#Arr[*]}
           Arr[$size] = $AddedName
           Number[$size] = $AddedNumber
           Number2[$size]=$AddedNumber2
            echo "Insert a contact is Done"
      else
            echo "Failed to insert a contact because the name is
dublicate"
      fi
elif [[ $choose == 2 ]]
then
clear
echo "remove Contact"
#######################
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############################
#Remove An element
flag=0
read -p "Plz enter Name " value
SearchCounter=0
for itemi in ${Arr[*]}
      do
      if [[ $itemi == $value ]]
      then
            unset 'Arr[SearchCounter]'
            unset 'Number[SearchCounter]'
            unset 'Number2[SearchCounter]'
            flag=1
            SearchCounter=$[$SearchCounter+1]
      else
            SearchCounter=$[$SearchCounter+1]
      fi
done
if [[ $flag == 1 ]]
then
      echo "Delete is done successfully"
else
      echo "The element is not exist"
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fi
elif [[ $choose == 3 ]]
then
clear
echo "***************
echo "View All"
#################################
###############################
###############################
#view All
Counter1=0
printf "You have %d Contacts in the list." ${#Number[*]}
echo ''
echo '***********************
for item in ${Arr[*]}
printf "%s\t\t" "Name:"
printf "%s\t" $item
Counter1=$[$Counter1+1]
done
echo " "
Counter2=0
for itemm in ${Number[*]}
printf "%s\t" "First Number:"
printf "%s\t" $itemm
Counter2=$[$Counter2+1]
done
echo " "
Counter2=0
for itemm in ${Number2[*]}
printf "%s\t" "Second Number:"
if [[ $itemm == -1 ]] #if this contact hasn't number 2
then
     printf "%s\t" "N/A"
                            #not applicable
else
     printf "%s\t" $itemm
      Counter2=$[$Counter2+1]
fi
done
echo " "
################################
################################
##############################
elif [[ $choose == 4 ]]
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then
clear
echo "***************
echo "Delete All Mode"
Arr=()
Number=()
Number2=()
rm -f ~/phonebookDB.txt
touch ~/phonebookDB.txt
DelteAll=1
elif [[ $choose == 5 ]]
then
clear
read -p "Plz enter Name: " SearchedName
Counter3=0
Found=0
for item in ${Arr[*]}
if [[ $item == $SearchedName ]]
then
Found=1
echo "The contact information is:"
           \t" "Name:"
printf "%s
echo $item
printf "%s\t" "Number 1:"
echo ${Number[$Counter3]}
printf "%s\t" "Number 2:"
if [[\${Number2}[\$Counter3]\} == -1]]
then
     printf "%s\t" "N/A"
     echo ""
else
     printf "%s\t" ${Number2[$Counter3]}
     echo ""
fi
else
Counter3=$[$Counter3+1]
done
if [[ $Found == 0 ]]
then
echo "No Founded Contact"
elif [[ $choose == 6 ]]
then
clear
echo "*************
echo "Exit Mode"
#if the file is exist Delete then update
if [[ $DelteAll != 1 ]]
rm -f ~/phonebookDB.txt
fi
Counter1=0
```

```
for item in ${Arr[*]}
do
echo $item >> ~/phonebookDB.txt
echo ${Number[$Counter1]} >> ~/phonebookDB.txt
echo ${Number2[$Counter1]} >> ~/phonebookDB.txt
Counter1=$[$Counter1+1]
done
continue=0
else
clear
echo "plz enter valid choice"
fi
skip=0
done
```