## **Assignment 1**

```
PART A)
```

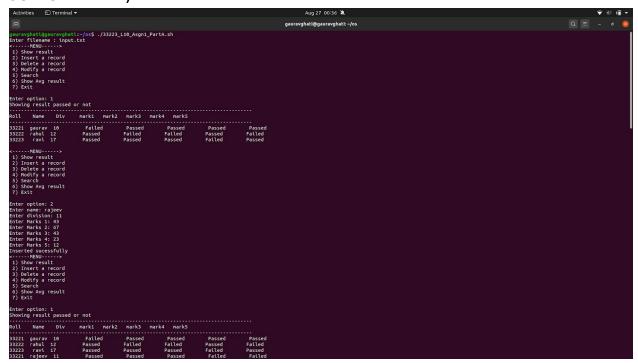
```
Insert(){
  fn=$1 name=$2 roll=$3 div=$4 mark1=$5 mark2=$6 mark3=$7 mark4=$8 mark5=$9
  total='expr $mark1 + $mark2 + $mark3 + $mark4 + $mark5'
  avg='expr $total / 5'
  echo "$roll $name $div $mark1 $mark2 $mark3 $mark4 $mark5 $avg" >> $fn
  echo "Inserted sucessfully"
}
Delete(){
  fn=$1
  roll=$2
  grep -v "$roll" $fn >> temp
  mv temp $fn
  echo "Deleted sucessfully!"
}
Modify(){
  roll=$2 fn=$1 name=$3 div=$4 mark1=$5 mark2=$6 mark3=$7 mark4=$8 mark5=$9
  total='expr $mark1 + $mark2 + $mark3 + $mark4 + $mark5'
  avg='expr $total / 5'
  grep -v "$roll" $fn >> temp
  mv temp $fn
  echo "$roll $name $div $mark1 $mark2 $mark3 $mark4 $mark5 $avg" >> $fn
  echo "Modified sucessfully"
}
search(){
  read -p "Enter roll no to be searched: " empno
       if grep "$empno" $fn
       then
  echo "Record found"
       else
  echo "Record not found"
       fi
}
result() {
```

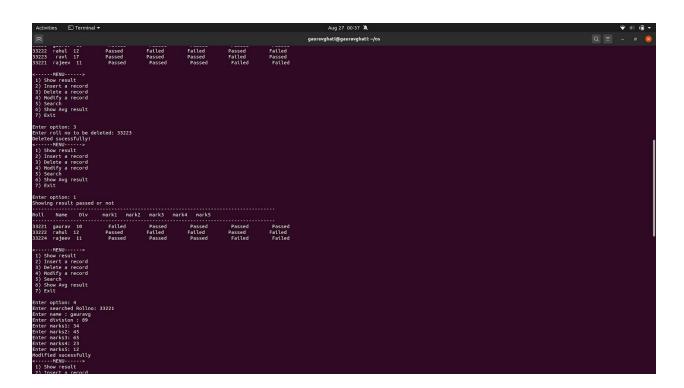
```
printf "Roll\tName\tDiv\tmark1\tmark2\tmark3\tmark4\tmark5\n"
      echo "-----"
      while read -ra line;
      do
      printf "%5d %5s %2d " ${line[0]} ${line[1]} ${line[2]}
      for ((i=3; i < 8; i++))
      do
      if ((\{[i]\} >= 40))
      then
             #echo -n "Passed "
             printf "
                          Passed"
      else
             #echo -n "Failed "
             printf " Failed"
      fi
      done
      echo ""
      done < $1
      echo ""
}
avgresult() {
      echo ""
      echo "-----"
      echo "Name Roll No Div Average"
      echo "-----"
      while read -ra line; do
      printf "%5d %5s %2d %7.2f\n" ${line[0]} ${line[1]} ${line[2]} ${line[8]}
      done < $1
      echo ""
}
read -p "Enter filename: " fn
roll=33220
while:
do
echo -e $"<----- \n 1) Show result \n 2) Insert a record \n 3) Delete a record \n 4)
Modify a record \n 5) Search \n 6) Show Avg result \n 7) Exit\n"
read -p "Enter option: " option
case $option in
  1) echo "Showing result passed or not"
```

```
2) roll='expr $roll + 1';
       read -p "Enter name: " name
       read -p "Enter division: " div
       read -p "Enter Marks 1: " mark1
       read -p "Enter Marks 2: " mark2
       read -p "Enter Marks 3: " mark3
       read -p "Enter Marks 4: " mark4
       read -p "Enter Marks 5: " mark5
       Insert $fn $name $roll $div $mark1 $mark2 $mark3 $mark4 $mark5;;
  3) read -p "Enter roll no to be deleted: " roll
       Delete $fn $roll;;
  4) read -p "Enter searched Rollno: " roll
  read -p "Enter name : " name
  read -p "Enter division: " div
  read -p "Enter marks1: " mark1
  read -p "Enter marks2: " mark2
  read -p "Enter marks3: " mark3
  read -p "Enter marks4: " mark4
  read -p "Enter marks5: " mark5
  Modify $fn $roll $name $div $mark1 $mark2 $mark3 $mark4 $mark5;;
  5) search;;
  6) echo "Show avg result"
        avgresult $fn;;
  7) exit;;
  *)echo "Invalid choice";;
esac
done
```

result \$fn;;

## **OUTPUT PART A)**





## PART B)

```
ViewFile(){
     echo ""
     echo "-----
     echo "EMP ID NAME DEPARTMENT DESIGNATION SALARY DA
GROSS SALARY"
  cat $1
}
Insert(){
 fn=$1 empno=$2 name=$3 dept=$4 desig=$5 sal=$6 DA=$7 gross=$8
 echo "$empno $name
                       $dept $desig $sal $DA $gross" >> $fn
  echo "Inserted sucessfully"
}
Delete(){
 fn=$1
  empno=$2
  grep -v "$empno" $fn >> temp
```

```
mv temp $fn
  echo "Deleted sucessfully!"
}
Modify(){
  empno=$1 fn=$2 name=$3 dept=$4 desig=$5 sal=$6 DA=$7 gross=$8
  grep -v "$empno" $fn >> temp
  mv temp $fn
  echo "$empno $name
                            $dept $desig
                                                        $DA $gross" >> $fn
                                                 $sal
  echo "Modified sucessfully"
}
search(){
       empno=$1 fn=$2
       if grep "$empno" $fn
       then
       echo "Record found"
       else
       echo "Record not found"
       fi
}
read -p "Enter filename: " fn
empno=33200
while:
do
echo -e $"<--EMPLOYEE MENU--> \n 1) View file \n 2) Insert a record \n 3) Delete a record \n
4) Modify a record \n 5) Search \n 6) Exit\n"
read -p "Enter option: " option
case $option in
  1) ViewFile $fn;;
  2) empno='expr $empno + 1'
       while true
       do
       read -p "Enter employee name: " name
       if [ -z "$name" ]
       then
```

```
echo 'Inputs cannot be blank please try again!'
    elif [[ "$name" =~ ^[a-zA-Z]+$ ]]
    then
           break
    else
           echo "Only Alphabets!"
    fi
   done
   read -p "Department: " dept
   while true
    read -p "Enter designation: " desig
    if [ -z "$desig" ]
    then
           echo 'Inputs cannot be blank please try again!'
    elif [[ "$desig" =~ ^[a-zA-Z]+$ ]]
    then
           break
    else
           echo "Only Alphabets!"
    fi
   done
   while true
    read -p "Enter salary: " sal
    if [ -z "$sal" ]
    then
           echo 'Inputs cannot be blank please try again!'
    elif[["$sal" = ~ ^[0-9]+$]]
    then
           break
    else
           echo "Only numbers!"
    fi
   done
   da=`echo "$sal * 0.2" | bc`
     hra=`echo "$sal * 0.5" | bc`
gross='echo "$sal + $da + $hra" | bc'
   Insert $fn $empno $name $dept $desig $sal $DA $gross;;
```

- 3) read -p "Enter employee no to be deleted: " empno Delete \$fn \$empno;;
- 4) read -p "Enter searched Rollno: " empno

```
while true
do
read -p "Enter employee name : " name
if [ -z "$name" ]
then
       echo 'Blanks not allowed!'
elif [[ "$name" =~ ^[a-zA-Z]+$ ]]
then
       break
else
       echo "Only alphabets"
fi
done
read -p "Department: " dept
while true
do
read -p "Enter designation: " desig
if [ -z "$desig" ]
then
       echo 'Blanks not allowed!'
elif [[ "$desig" =~ ^[a-zA-Z]+$ ]]
then
       break
else
       echo "Only alphabets"
fi
done
while true
read -p "Enter salary: " sal
if [ -z "$sal" ]
then
       echo 'Blank not allowed!'
elif [[ "$sal" =~ ^[0-9]+$ ]]
then
       break
```

```
else
echo "Only numbers!"

fi
done

da=`echo "$sal * 0.2" | bc`
hra=`echo "$sal * 0.5" | bc`
gross=`echo "$sal + $da + $hra" | bc`
Modify $empno $fn $name $dept $desig $sal $da $gross;;

5) read -p "Enter emp no to be searched: " empno search $empno $fn;;

6) exit;;

*)echo "Invalid choice";;
```

## **OUTPUT PART B)**

done

