```
# Initialize variables
roll=0
name=""
course=""
marks=0
ch=0

while [ $ch -ne 6 ]
do
  echo -e "\nStudent Database\n----------------"
  echo -e "1. Create Student Database"
  echo -e "2. View Student Database"
  echo -e "3. Insert a Record"
  echo -e "4. Delete a Record"
  echo -e "5. Modify a Record"
  echo -e "6. Exit"
  echo -e "\nEnter your choice:"
  read ch

  case $ch in

  1)
    # Create Database
    echo -e "\nEnter file name for student database:"
    read fname
    touch "$fname"
    echo -e "\nEnter number of student records to add:"
```

```
read n

i=$n

while [ $i -gt 0 ]

do

  echo -e "\nEnter Roll No:"

  read roll

  echo -e "Enter Student Name:"

  read name

  echo -e "Enter Course:"

  read course

  echo -e "Enter Marks:"

  read marks

  echo -e "$roll\t$name\t$course\t$marks" >> "$fname"

  echo -e "Record added successfully."

  i=$((i - 1))

done

;;


2)

# View Database

if [ ! -f "$fname" ]; then

  echo "No database file found. Please create one first."

else

  echo -e "\nRollNo\tName\tCourse\tMarks"

  cat "$fname"

fi

;;
```

3)

```
# Insert Record

echo -e "\nEnter Roll No:"

read roll

echo -e "Enter Student Name:"

read name

echo -e "Enter Course:"

read course

echo -e "Enter Marks:"

read marks

echo -e "$roll\t$name\t$course\t$marks" >> "$fname"

echo -e "Record inserted successfully."

;;
```

4)

```
# Delete Record

echo -e "\nEnter Roll No of record to delete:"

read delroll

if grep -w "$delroll" "$fname" > /dev/null

then

  grep -v -w "$delroll" "$fname" > temp

  mv temp "$fname"

  echo -e "Record deleted successfully."

else

  echo -e "Record not found."

fi

;;
```

5)

```
# Modify Record

echo -e "\nEnter Roll No of record to modify:"

read roll

if grep -w "$roll" "$fname" > /dev/null

then

  grep -v -w "$roll" "$fname" > temp

  echo -e "Enter new Roll No:"

  read roll

  echo -e "Enter new Student Name:"

  read name

  echo -e "Enter new Course:"

  read course

  echo -e "Enter new Marks:"

  read marks

  echo -e "$roll\t$name\t$course\t$marks" >> temp

  mv temp "$fname"

  echo -e "Record modified successfully."

else

  echo -e "Record not found."

fi

;;
```

6)

```
echo -e "\nExiting from program..."

exit 0

;;
```

```
  *)
    echo -e "Invalid choice. Please enter a number between 1 and 6."
    ;;
  esac
done
```