

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

```
FILE="student_data.txt"
```

```
create_book() {  
    if [ -f "$FILE" ]; then  
        echo "Student record file already exists!"  
    else  
        echo "ID,Name,Phone,Email" > "$FILE"  
        echo "Student record file created."  
    fi  
}
```

```
view_book() {  
    if [ -s "$FILE" ]; then  
        echo -e "\n==== Student Records ====="  
        cat "$FILE"  
    else  
        echo "No records found."  
    fi  
}
```

```
insert_record() {  
    echo -n "Enter ID: "  
    read id  
    echo -n "Enter Name: "  
    read name  
    echo -n "Enter Phone: "  
    read phone  
    echo -n "Enter Email: "  
    read email  
  
    # Optional: check if ID already exists  
    if grep -q "^$id," "$FILE"; then  
        echo "ID already exists! Please try again."  
        return  
    fi  
  
    echo "$id,$name,$phone,$email" >> "$FILE"  
    echo "Record added with ID $id"  
}
```

```
delete_record() {  
    echo -n "Enter ID to delete: "  
    read id  
    if grep -q "^$id," "$FILE"; then  
        grep -v "^$id," "$FILE" > temp && mv temp "$FILE"  
        echo "Record with ID $id deleted."  
    fi  
}
```

```

else
    echo "No record found with ID $id."
fi
}

modify_record() {
    echo -n "Enter ID to modify: "
    read id
    if ! grep -q "^$id," "$FILE"; then
        echo "No record found with ID $id."
        return
    fi

    echo -n "Enter new Name: "
    read name
    echo -n "Enter new Phone: "
    read phone
    echo -n "Enter new Email: "
    read email

    grep -v "^$id," "$FILE" > temp && mv temp "$FILE"
    echo "$id,$name,$phone,$email" >> "$FILE"
    sort -n "$FILE" -o "$FILE"
    echo "Record with ID $id modified."
}

while true; do
    echo -e "\n===== Menu ====="
    echo "1) Create Address Book"
    echo "2) View Records"
    echo "3) Insert Record"
    echo "4) Delete Record"
    echo "5) Modify Record"
    echo "0) Exit"
    echo -n "Choose option [0-5]: "
    read choice

    case $choice in
        1) create_book ;;
        2) view_book ;;
        3) insert_record ;;
        4) delete_record ;;
        5) modify_record ;;
        0) echo "Goodbye!"; exit 0 ;;
        *) echo "Invalid choice, try again." ;;
    esac
done

```

-----OUTPUT-----

pict@mplab-12:~/Desktop/33164\$./assign1b2.sh

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 1

Student record file created.

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 1

Student record file already exists!

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 3

Enter ID: 1

Enter Name: Amar

Enter Phone: 9876543210

Enter Email: amar@gmail.com

Record added with ID 1

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

1,Amar,9876543210,amar@gmail.com

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 3

Enter ID: 2

Enter Name: shubham

Enter Phone: 8765432109

Enter Email: shubham@gmail.com

Record added with ID 2

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record

5) Modify Record
0) Exit
Choose option [0-5]: 5
Enter ID to modify: 1
Enter new Name: amarendra
Enter new Phone:
Enter new Email:
Record with ID 1 modified.

===== Menu =====

1) Create Address Book
2) View Records
3) Insert Record
4) Delete Record
5) Modify Record
0) Exit
Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email
1,amarendra,,
2,shubham,8765432109,shubham@gmail.com

===== Menu =====

1) Create Address Book
2) View Records
3) Insert Record
4) Delete Record
5) Modify Record
0) Exit
Choose option [0-5]: 5
Enter ID to modify: 1
Enter new Name: amarendra
Enter new Phone: 9876543210
Enter new Email: amr@gmail.com
Record with ID 1 modified.

===== Menu =====

1) Create Address Book
2) View Records
3) Insert Record
4) Delete Record
5) Modify Record
0) Exit
Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

1,amarendra,9876543210,amr@gmail.com
2,shubham,8765432109,shubham@gmail.com

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 4

Enter ID to delete: 2

Record with ID 2 deleted.

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

1,amarendra,9876543210,amr@gmail.com

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 3

Enter ID: 3

Enter Name: aaditya

Enter Phone: 8673746373

Enter Email: aditya@gmail.com

Record added with ID 3

===== Menu =====

- 1) Create Address Book
- 2) View Records
- 3) Insert Record
- 4) Delete Record
- 5) Modify Record
- 0) Exit

Choose option [0-5]: 2

===== Student Records =====

ID,Name,Phone,Email

1,amarendra,9876543210,amr@gmail.com

3,aaditya,8673746373,aditya@gmail.com

===== Menu =====

1) Create Address Book

2) View Records

3) Insert Record

4) Delete Record

5) Modify Record

0) Exit

Choose option [0-5]: 0

Goodbye!

pict@mplab-12:~/Desktop/33164\$