

INPUT:

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import csv
student_fields = ['roll', 'name', 'age', 'email', 'phone']
student_database = 'students.csv'

def display_menu():
    print("-----")
    print(" Welcome to Student Management System")
    print("-----")
    print("1. Add New Student")
    print("2. View Students")
    print("3. Search Student")
    print("4. Update Student")
    print("5. Delete Student")
    print("6. Quit")

def add_student():
    print("-----")
    print("Add Student Information")
    print("-----")
    global student_fields
    global student_database
    student_data = []
    for field in student_fields:
        value = input("Enter " + field + ": ")
        student_data.append(value)
    with open(student_database, "a", encoding="utf-8") as f:
        writer = csv.writer(f)
        writer.writerows([student_data])
    print("Data saved successfully")
    input("Press any key to continue")
    return

def view_students():
    global student_fields
    global student_database
    print("--- Student Records ---")
    with open(student_database, "r", encoding="utf-8") as f:
        reader = csv.reader(f)
        for x in student_fields:
            print(x, end='\t |')
        print("\n-----")
        for row in reader:
            for item in row:
                print(item, end="\t |")
            print("\n")
    input("Press any key to continue")

def search_student():
    global student_fields
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global student_database
print("--- Search Student ---")
roll = input("Enter roll no. to search: ")
with open(student_database, "r", encoding="utf-8") as f:
    reader = csv.reader(f)
    for row in reader:
        if len(row) > 0:
            if roll == row[0]:
                print("----- Student Found -----")
                print("Roll: ", row[0])
                print("Name: ", row[1])
                print("Age: ", row[2])
                print("Email: ", row[3])
                print("Phone: ", row[4])
                break
            else:
                print("Roll No. not found in our database")
    input("Press any key to continue")
def update_student():
    global student_fields
    global student_database
    print("--- Update Student ---")
    roll = input("Enter roll no. to update: ")
    index_student = None
    updated_data = []
    with open(student_database, "r", encoding="utf-8") as f:
        reader = csv.reader(f)
        counter = 0
        for row in reader:
            if len(row) > 0:
                if roll == row[0]:
                    index_student = counter
                    print("Student Found: at index ", index_student)
                    student_data = []
                    for field in student_fields:
                        value = input("Enter " + field + ": ")
                        student_data.append(value)
                    updated_data.append(student_data)
                else:
                    updated_data.append(row)
            counter += 1
    if index_student is not None:
        with open(student_database, "w", encoding="utf-8") as f:
            writer = csv.writer(f)
            writer.writerows(updated_data)
    else:

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        print("Roll No. not found in our database")
    input("Press any key to continue")
def delete_student():
    global student_fields
    global student_database
    print("--- Delete Student ---")
    roll = input("Enter roll no. to delete: ")
    student_found = False
    updated_data = []
    with open(student_database, "r", encoding="utf-8") as f:
        reader = csv.reader(f)
        counter = 0
        for row in reader:
            if len(row) > 0:
                if roll != row[0]:
                    updated_data.append(row)
                    counter += 1
                else:
                    student_found = True
    if student_found is True:
        with open(student_database, "w", encoding="utf-8") as f:
            writer = csv.writer(f)
            writer.writerows(updated_data)
        print("Roll no. ", roll, "deleted successfully")
    else:
        print("Roll No. not found in our database")
    input("Press any key to continue")
while True:
    display_menu()
    choice = input("Enter your choice: ")
    if choice == '1':
        add_student()
    elif choice == '2':
        view_students()
    elif choice == '3':
        search_student()
    elif choice == '4':
        update_student()
    elif choice == '5':
        delete_student()
    else:
        break
print("-----")
print(" Thank you for using our system")
print("-----")

```

OUTPUT:

Welcome to Student Management System

1. Add New Student
2. View Students
3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 1

Add Student Information

Enter roll: 1
Enter name: pratik
Enter age: 20
Enter email: pratik@gmail.com
Enter phone: 8766854678
Data saved successfully
Press any key to continue

Welcome to Student Management System

1. Add New Student
2. View Students
3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 1

Add Student Information

Enter roll: 2
Enter name: ritesh
Enter age: 20
Enter email: ritesh@gmail.com
Enter phone: 9632587410
Data saved successfully
Press any key to continue

Welcome to Student Management System

1. Add New Student
2. View Students

3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 1

Add Student Information

Enter roll: 3

Enter name: yash

Enter age: 20

Enter email: yash@gmail.com

Enter phone: 7412580369

Data saved successfully

Press any key to continue

Welcome to Student Management System

-
1. Add New Student
 2. View Students
 3. Search Student
 4. Update Student
 5. Delete Student
 6. Quit

Enter your choice: 1

Add Student Information

Enter roll: 4

Enter name: tejas

Enter age: 20

Enter email: tejas@gmail.com

Enter phone: 7539514862

Data saved successfully

Press any key to continue

Welcome to Student Management System

-
1. Add New Student
 2. View Students
 3. Search Student
 4. Update Student
 5. Delete Student
 6. Quit

Enter your choice: 2

--- Student Records ---

roll	name	age	email	phone	
1	pratik	20	pratik@gmail.com	8766854678	
2	ritesh	20	ritesh@gmail.com	9632587410	
3	yash	20	yash@gmail.com	7412580369	
4	tejas	20	tejas@gmail.com	7539514862	

Press any key to continue

Welcome to Student Management System

1. Add New Student
2. View Students
3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 3

--- Search Student ---

Enter roll no. to search: 2

----- Student Found -----

Roll: 2

Name: ritesh

Age: 20

Email: ritesh@gmail.com

Phone: 9632587410

Press any key to continue

Welcome to Student Management System

1. Add New Student
2. View Students
3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 4

--- Update Student ---

Enter roll no. to update: 4

Student Found: at index 3

Enter roll: 5

Enter name: aditya

Enter age: 20

Enter email: aditya@gmail.com

Enter phone: 8536974120

Press any key to continue

Welcome to Student Management System

-
1. Add New Student
 2. View Students
 3. Search Student
 4. Update Student
 5. Delete Student
 6. Quit

Enter your choice: 2

--- Student Records ---

roll	name	age	email	phone	
------	------	-----	-------	-------	--

1	pratik	20	pratik@gmail.com	8766854678	
2	ritesh	20	ritesh@gmail.com	9632587410	
3	yash	20	yash@gmail.com	7412580369	
5	aditya	20	aditya@gmail.com	8536974120	

Press any key to continue

Welcome to Student Management System

-
1. Add New Student
 2. View Students
 3. Search Student
 4. Update Student
 5. Delete Student
 6. Quit

Enter your choice: 5

--- Delete Student ---

Enter roll no. to delete: 3

Roll no. 3 deleted successfully

Press any key to continue

Welcome to Student Management System

-
1. Add New Student
 2. View Students
 3. Search Student
 4. Update Student
 5. Delete Student
 6. Quit

Enter your choice: 2

--- Student Records ---

roll	name	age	email	phone	
------	------	-----	-------	-------	--

1	pratik	20	pratik@gmail.com	8766854678	
2	ritesh	20	ritesh@gmail.com	9632587410	

5 |aditya |20 |aditya@gmail.com |8536974120 |
Press any key to continue

Welcome to Student Management System

- 1. Add New Student
2. View Students
3. Search Student
4. Update Student
5. Delete Student
6. Quit

Enter your choice: 6

Thank you for using our system
