Class Exercise:

Student database

Exercise Description:

In this exercise, we will work with tuple operations and methods to create a program that manages a student database. We will use tuples to store the student information and perform various operations on the student records.

Your task is to write the code that allows the user to perform the following operations on a student database:

* Add a new student record.
* Display all student records.
* Search for a student by name.
* Update a student's grade.
* Remove a student record.

Once you have completed the code, test it by performing the specified operations on the student database.

# Initialize an empty student database

student\_database = []

while True:

    print("Menu:")

    print("1. Add new student record")

    print("2. Display all student records")

    print("3. Search student by name")

    print("4. Update student grade")

    print("5. Remove student record")

    print("6. Quit")

    choice = input("Enter your choice (1-6): ")

    if choice == "1":

# Your code here

    elif choice == "2":

# Your code here

    elif choice == "3":

# Your code here

    elif choice == "4":

# Your code here

    elif choice == "5":

# Your code here

    elif choice == "6":

# Your code here

print("Thank you for using the student database manager!")

Menu:

1. Add new student record

2. Display all student records

3. Search student by name

4. Update student grade

5. Remove student record

6. Quit

Enter your choice (1-6): 1

Enter student name: John Doe

Enter student roll number: 123456

Enter