

## HomeWork

### Question 1

**Create a simple console-based calculator application in Java that performs basic arithmetic operations. The calculator should be able to perform the following operations: addition, subtraction, multiplication, and division.**

#### Requirements

**1. Input:**

- The program should prompt the user to enter two numbers.
- The user should then select an operation to perform: addition, subtraction, multiplication, or division.

**2. Output:**

- The program should display the result of the selected operation.

**3. Operations:**

- **Addition:** Adds two numbers.
- **Subtraction:** Subtracts the second number from the first number.
- **Multiplication:** Multiplies two numbers.
- **Division:** Divides the first number by the second number. Handle division by zero by displaying an appropriate error message.

### Question 2

**Create a Java program to manage a list of students in a school. The program should provide functionality to add students, remove students, and display the list of students. Each student has a name, age, and grade.**

#### Requirements

**1. Create a Student class** with the following attributes:

- name (String)
- age (int)
- grade (String)

**2. Create a StudentManager class** with methods to:

- **Add a Student:** addStudent(Student student)

- **Remove a Student:** `removeStudent(String name)` (Remove a student by name)
- **Display All Students:** `displayStudents()` (Display the list of all students)

3. **Create a main class** to demonstrate the usage of the `StudentManager` class.

The main class should:

- Create instances of `Student`.
- Use `StudentManager` methods to add, remove, and display students.