Python Assignment 2: Arithmetic Calculator and Student Grade System

Objective:

In this assignment, you will create two Python programs:

1. **Arithmetic Calculator**
2. **Student Grade System Calculator**

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1. Arithmetic Calculator

Task: Create a simple arithmetic calculator that performs basic operations: addition, subtraction, multiplication, division, and modulus.

Instructions:

1. Take input from the user for two numbers.
2. Ask the user to select an operation from the following:
    - `+` for Addition
    - `-` for Subtraction
    - `*` for Multiplication
    - `/` for Division
    - `%` for Modulus
3. Perform the selected operation and display the result.
4. Handle invalid operations with appropriate error messages.

Example Output:

```
Enter first number: 10
Enter second number: 5
Enter operation (+, -, *, /, %): *
Result: 50
```

Bonus:

- Implement error handling to avoid division by zero.
- Use a loop to allow multiple calculations without restarting the program.

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2. Student Grade System Calculator

Task: Create a program that calculates a student's total marks, percentage, and grade based on marks entered for multiple subjects.

Instructions:

1. Accept marks for at least three subjects from the user.
2. Calculate the total marks and percentage.
3. Assign grades based on the percentage using the following criteria:
    - 90% and above → A+
    - 80% - 89% → A
    - 70% - 79% → B
    - 60% - 69% → C
    - 50% - 59% → D
    - Below 50% → F
4. Display the total marks, percentage, and grade.

Example Output:

```
Enter marks for Math: 85
Enter marks for Science: 92
Enter marks for English: 78
Total Marks: 255
Percentage: 85.0%
Grade: A
```

Bonus:

- Add input validation to ensure marks are between 0 and 100.
- Allow the user to input any number of subjects.

Submission Guidelines:

- Submit the Python script file (.py) or (.ipynb) containing both programs.
- Complete in google collab and submit link of it in the submission form
- Add comments to explain each section of your code.
- Test your code with different inputs to ensure accuracy.

Deadline: 13-03-2025

Good Luck! 🚀