Lab Exercise 1 — Sum, Product, and Smallest

The problem is divided into six parts:
1. Lab Objectives
1. Description of the Problem
2. Sample Output
3. Problem-Solving Tips

Read the problem description, examine the sample output, create a main file, and put your code in it. Using the problem-solving tips as a guide, implement necessary functions. Compile and execute the program. Check your output.

Lab Objectives

In this lab, you will practice:
- Reading the input file to get input data from the user.
- Using cout to output text and variables.
- Using array or list to store the undefined number of inputs
- Using if statements to make decisions based on the truth or falsity of a condition.
- Using the arithmetic operators to perform calculations.
- Using relational operators to compare values.
- Creating functions for each of the operations
- Using GIT
    - creating a new file (main.cpp)
    - adding it to your code repository (add, commit, push)

Description of the Problem

Write a program that reads integers from the input file(input.txt) and prints the sum, product, average, and smallest numbers. First-line includes the count of integers, and the second-line contains integers.

Input File(input.txt)

```
4
13 27 14 2
```

The screen dialogue should appear as follows (absolutely)

Sample Output

```
Sum is 56
Product is 9828
Average is 14
Smallest is 2
```

* Expected; Minimum 3 commits to code repository.
        - One for Sum, One for Product and One for Smallest function development.
** Do not forget to upload your project to UZEM at the end of your development.

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Problem-Solving Tips

1. Read the **input.txt** file and read integer values into your defined integer variables.
1. Sometimes it is useful to assume to help solve or simplify a problem. For example, you can consider as the first integer is the smallest of the values and assign it to the smallest. You will use if statements to determine whether other numbers are small.
2. Write a statement that outputs the sum, product (i.e., multiplication), and smallest values.
3. While coding, be sure to follow the spacing and indentation conventions mentioned in the text.
4. If you have any questions as you proceed, ask your lab instructor for assistance.
5. Use float variables to calculate values which are rational number