Homework 02

Re-submit Assignment

Due Feb 9 by 11:59pm **Points** 10 **Submitting** a file upload

Part 1

Suppose we have several student's scores and we want to develop a program that calculate the average score.
Requirements:

- User inputs score one by one.
  - The score is a positive or zero **integer** value.
- When user inputs a **negative value**, the program calculates the mean score and is **finalized**.
  - The mean score is **rounded off to the first decimal place**.

This task could be broken down into the following procedures:

1. Initialize variables to store the number of student and the sum of score. ('count=0' and 'sum=0')
2. Start a loop
3. Get a student's core. (cin >> score)
4. If the core is negative, exit from the loop. (go to 8)
5. Add the score to the sum. (sum += score)
6. Increment the counter. (count++)
7. Go back to 3
8. Compute the mean score. (mean = sum / count)
9. Print the result.
10. End.

Part 2

We develop “Buying Soda” code similarly with “Buying Pizza” code. (See **Sample**)

- What size Soda is the best buy?
  - Which size gives the lowest cost per a little?
  - Soda sizes given in little.
  - Quantity of soda is based on the volume.

Buying Soda Problem Definition

- Input:
  - Volume of two sizes of soda.
  - Cost of the same two sizes of soda.

- Output:
  - Cost per a unit volume for each size of soda.
  - Which size is the best buy,
    - Based on lowest price per a unit volume,
    - If cost per a unit volume is the same, the smaller size will be the better buy.

Buying Soda Problem Analysis

- Subtask 1
  - Get the input data for each size of soda
- Subtask 2
  - Compute price per a unit volume for smaller soda
- Subtask 3
  - Compute price per a unit volume for larger soda
- Subtask 4
  - Determine which size is the better buy
- Subtask 5
  - Output the results

* Declare and define a function to process Subtask 2 and 3.