

Instructions:

1. Form a group of maximum **5** members. Group members are from the same section.
2. Submit all the following:
 - a. Executable source codes.
 - i. Specification file.
 - ii. Implementation file.
 - iii. Main program file.
 - b. Presentation slides.
 - c. Presentation video with maximum of 5 minutes' duration.
3. Before submit, ensure to name your zipped file as following
<Section Number>_Assignment_G<group number>
Eg: **S11_Assignment_G1**
4. Submission due date is on **January 8th 2021**. *Submission later than the mentioned date will be granted a 0 mark.*

Program Requirements:

By using OOP programming approaches with `class` implementation, design the executable C++ program to execute the **insertion** and **deletion** algorithm to simulate the student's marks key in process. Use **array** as of your data structure type.

Your program **must** be able to execute the following:

1. User will determine how many marks to insert.
2. Marks must be in floating point data.
3. Once user key in all marks,
 - i. Calculate and display
 - a. Total marks
 - b. Average marks
 - ii. Prompt a menu for the following options;
 - a. **Insert new marks**
 - *User need to enter new mark one by one*
 - *New mark insertion only allow at the end of the array.*
 - *Maximum number of new marks insertion is limited to 3 times only.*
 - *Prompt the user once new insertion reaches its limit.*
 - b. **Delete existing marks**
 - *User need to delete the existing marks one by one.*
 - *User need to select the mark to be deleted*
 - *The maximum number of deletion is until the array is empty*
 - *Prompt the user once deletion reaches its limit.*
 - c. **Exit the program.**

*** Requirement 3.ii will repetitively prompt an option menu unless user choose to exit a program (Requirement 3.ii.c).*

4. In your class, the following are must:
- i. Define a **private** data do store the following;
 - a. Size of array (int)
 - b. Array of marks (float)
 - c. Total marks (float)
 - d. Mark's average (float)
 - ii. Define the **public** member functions to perform the task as per following:
 - a. Constructor
 - b. Destructor
 - c. Key in all marks
 - d. Display the list of marks, total and marks' average.
 - e. Calculate the total mark
 - f. Calculate the mark average
 - g. Insertion algorithm
 - h. Deletion algorithm