

OOP Lab 2 C++

Prepared by Dr Han Duy Phan.

Requirements:

Improve the simple C++ student management program from Lab 1. For this week you need to keep the information of each student's name and their score in two separate dynamically allocated arrays using pointers.

- (1) Use C++ dynamic array data structure using pointers to store two lists of all students' names and students' scores, 1 list for students' names & 1 list for student' scores.
- (2) Implement a function that allows users to add a new student and the corresponding score to the two above lists.
- (3) Implement a function to display the list of all students and their scores.
- (4) Implement a function to display the best student(s)'s name(s) and their score(s) (there could be more than one student who has the same highest score).
- (5) Use C++ WHILE loop to create a text-based menu that allows users to choose the above functionalities or to exit the program.

Resources:

- (1) Weekly slides & Youtube Videos at Cat Can Code & Meo Lap Trinh channels
- (2) C++ How to Program, 9th Edition, Paul Deitel
- (3) Object-Oriented Programming in C++, 4th Edition, Robert Lafore
- (4) <http://www.cplusplus.com/doc/tutorial/dynamic/>
- (5) <https://www.geeksforgeeks.org/pointers-vs-references-cpp/>