**Homework-7**

**Out Date:** 11/13/2018 (Tuesday)

**Due Date:** 11/18/2018 (Sunday) 11:59PM

**Problem Statement:** Suppose you have a collection of student records. The records are structures that stores of the following type:

struct StudentInfo {

string name;   
int grade;

};

The records are maintained in a vector STL (vector<StudentInfo>). Write a program that prompts for and fetches data and builds a vector of student records. The program should then sorts the vector by name, calculates the maximum and minimum grades, the class median, and the class average, then prints this summarizing data along with a class roll with grades (P grade for pass if the grade is above 70, otherwise, F for fail). Print the names of the students who received maximum and minimum grades. **[50 points]**

The program should generate an **exception** when negative values is entered. Allow the user to correct the mistake by letting him/her enter a positive number. **[10 points]**

The program should let the user enters the student information until s/he enters word “Done” for the student name. Once the students’ information is entered, the program should print the output (class roll with grades, class stats - min, max, median, and average). **[20 points]**

**Scoring Distribution [100 points]**

* 80 points for implementing the above mentioned requirements.
* 10 points for appropriate comments
* 10 points for programing style

**Blackboard Submission**

1. Submit necessary files
2. Zip the files
3. Upload the zip file to Blackboard