

## CSCI 3010 – C++ program

Due Date: 9:30 AM, February 22, 2023

After the students requested for Dr. Smith to grade his class on a curve he agreed. So, to calculate the grade for the student you must calculate a strict bell curve for the class. A bell curve does not care about the average but where the student average has them fall in the class. For a strict bell curve the top 10% of the students will make an “A” the next 20% will make a “B” the middle 40% will make a “C”, followed by the next 20% of the class making “D”s and the final 10% will make an “F”.

So you are to write a well-structured and documents C++ program that will calculate the class grades for a class. The output will be the student’s name followed by a dash and their grade. Both input and output will be in alphabetic order, but the grades will be determined by their average.

Input will be a file containing one line that contains the number of students followed by each student’s name on one line followed by their grades in the class on the next line. Each student will have 4 grades all the grades are out of 100 points and are weighted evenly. Output will be to the console.

Programs will be submitted through codepost. Codepost requirement will be posted shortly.

### **Example Input File**

```
10
Fatin Baaiman
75 88 76 99
Saule Boerefijn
100 93 94 78
Enos Draper
92 91 98 77
Juliana Dries
99 97 96 94
Aslan Duerr
89 86 80 93
Toninho Lind
96 81 94 88
Adzo Marek
76 80 88 98
Maruxa Randal
76 79 88 86
Viorica Tuominen
81 76 82 84
Wybert Westbrook
100 92 83 98
```

### **Example Output**

```
Fatin Baaiman - D
Saule Boerefijn - B
Enos Draper - C
Juliana Dries - A
Aslan Duerr - C
Toninho Lind - C
Adzo Marek - C
Maruxa Randal - D
Viorica Tuominen - F
Wybert Westbrook - B
```