# C++ OOP – Regular Exam – 20 April 2024

Submit your zip file here: <https://judge.softuni.org/Contests/Compete/Index/4740>

# 1. Student Statistics

You're given code, which:

* Reads input for students in the following format: **"{name} {grade}"**
* Sorts the students per grade
* Prints out the sorted list (descending) and the total average

The code uses **BaseStudent** class in a way, in which you need to inherit it to do the right job.

**main.cpp** takes care for processing the input and output, but it's **missing functionality**.

Study the provided skeleton and **finish the app**, so that it works as expected.

**Note:** For submission you have to zip two given files (**BaseStudent.h** and **main.cpp**) in the skeleton.

## Example Input / Output

|  |  |  |
| --- | --- | --- |
| ****Input**** | ****Output**** | ****Explanation**** |
| **Alice 89**  **Bob 92**  **Carol 78**  **David 85**  **Eva 91**  **end** | **0..9 => 0**  **10..19 => 0**  **20..29 => 0**  **30..39 => 0**  **40..49 => 0**  **50..59 => 0**  **60..69 => 0**  **70..79 => 1**  **80..89 => 2**  **90..99 => 2** | **There's 1 student with grades from 70…79, and two within the other ranges 80…89 and 90…99** |

## Example Input / Output

|  |  |
| --- | --- |
| ****Input**** | ****Output**** |
| **Frank 13**  **Georgia 88**  **Henry 2**  **Ivy 45**  **Jack 77**  **Karen 8**  **end** | **0..9 => 1**  **10..19 => 1**  **20..29 => 0**  **30..39 => 0**  **40..49 => 1**  **50..59 => 0**  **60..69 => 0**  **70..79 => 1**  **80..89 => 2**  **90..99 => 0** |