# 01. Pointers and References – Homework Exercises

Write C++ code for solving the tasks on the following pages.

Code should compile under the C++03 or the C++11 standard.

Submit your solutions here: <https://judge.softuni.bg/Contests/1144/CPlusPlus-Advanced-2018-September-01-Pointers-and-References-Homework>

Any code files that are part of the task are provided under the folder **Skeleton**.

Please follow the exact instructions on uploading the solutions for each task.

# Task 3 – Order

You are given program in an OrderMain.cpp file that reads info about **companies** – **name** and **id** – and then prints them ordered by their id, in increasing order. To describe a company, it uses the Company.h file, which you are also given.

To order the companies, OrderMain.cpp uses a class named OrderedInserter from a file named OrderedInserter.h – it initializes it with an empty vector of companies, then calls a method named insert for each company in the input, then prints the contents of the vector.

Your task is to study the code in Main.cpp, then create a file called **OrderedInserter**.h (which Main.cpp includes) containing the definition of the **OrderedInserter** class, written in such a way that Main.cpp compiles successfully and works as described above.

You should submit a single .zip file for this task, containing ONLY the **OrderedInserter**.h file. The Judge system has a copy of the Main.cpp file and will compile it and your **OrderedInserter**.h file in the same directory.

To correctly use the Company definition, without interfering with its usage by Main.cpp, use the following structure for the **OrderedInserter**.h file:

|  |
| --- |
| **OrderedInserter.h** |
| #ifndef ORDERED\_INSERTER\_H  #define ORDERED\_INSERTER\_H  #include "Company.h"  // Place your code here, as well as any other #include directives you might need  #endif // !ORDERED\_INSERTER\_H |

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| acme 424242420  softuni\_foundation 20140414  itjoro 878968302  end | softuni\_foundation 20140414  acme 424242420  itjoro 878968302 |