# 11. Exam Preparation

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/1291/11-Exam-Preparation> (select “Compete” when prompted)

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 1 – Census

You are given code for a program that reads information about City objects (name, population), orders prints them in order of their population and calculates the total population (the sum of the populations of each City).

The provided code uses two functions, named initCity and groupByPopulation, to create cities and group them in increasing order of their population (in this case each “group” will be exactly 1 City).

You should submit a single .zip file for this task, containing ONLY the files you created.

The Judge system has a copy of the other files and will compile them, along with your file, in the same directory.

### Restrictions

The provided code handles input and output.

No two cities will have an equal population.

City names will be strings of letters from the English alphabet, without any whitespaces, digits or other symbols.

There will be no more than 10 cities in the input.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  Sofia 1291591  Gabrovo 54950  NewYork 8550405 | Gabrovo 54950  Sofia 1291591  NewYork 8550405  total: 9896946 |