Exam Preparation

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

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.

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