C++ Advanced – Regular Exam – 16 June 2024

Please submit your source code to all below-described problem in Judge.

1. Fishes

Youre watching a beautiful river flow, and you notice that there're plenty of fishes there. The river flow splits into two parts.

The first part of the flow, **A**, whirles strangeously any fish that enters there, in a way that any fish, which goes in there last, swims out first!

The second part of the flow, **B**, is more normal – any fish, which swims through, follows the previous fishes.

You note each fish with its name, and then a char: **A** or **B**.

Your notes finish with "**end**" as fish name.

Your task is simple:

1. Read all the data about the fishes. See the examples below for the exact input. Note that the fish name will never contain space or other separator, and also the input will always be correct.
    a. A flow may contain zero fishes, in this case you have to print out **<EMPTY>**.
2. Once you reach the end, output the two flows, in the order, in which the fishes will come out. First goes flow **A**, then flow **B**, according to the example below.

Example 1

Input	Output	Explanation
Bass A Pike B Perch A Tuna B end	Flow A: Perch, Bass Flow B: Pike, Tuna	Bass goes to the flow A, then Pike goes to flow B, then Perch goes to flow A and Tuna goes to flow B. The two flows contain: • Flow A: Bass, Perch • Flow B: Pike, Tuna You print out Flow A, following the rule that the last fish goes out first. Then you print out Flow B, following the rule that the first fish goes out first, and then the rest of the fishes.

Example 2

Input	Output
Goldfish A Trout A Catfish A end	Flow A: Catfish, Trout, Goldfish Flow B: <EMPTY>

Example 3

Input	Output
Nemo A Dory A Marlin B Coral A Goldie B Bubbles A Finn A Splash B end	Flow A: Finn, Bubbles, Coral, Dory, Nemo Flow B: Marlin, Goldie, Splash