# C++ Fundamentals – Exam Retake (24 November 2019)

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

Code should compile under the C++11 standard.

Submit your solutions here: <https://judge.softuni.bg/Contests/1716/CPlusPlus-Fundamentals-Exam-Retake-24-November-2019>

Only source code will be accepted as solution for each task.

# Task 2 – Garbage Sorting

As a good citizen of the planet Earth you are assigned a task to help in proper eco-friendly garbage sorting.   
  
You will be working in a special warehouse that only accepts glass, metal and plastic.  
if for any reason some other type of garbage is delivered to the warehouse – you should **NOT** process it.  
The garbage will be sorted in 3 big industrial lines.   
One for “**glass**”, one for “**metal**” and respectively one for “**plastic**”.  
Depending on the current instruction - each new piece of garbage should be added in either the **front** of the existing ones in that line or respectively in the **back**.  
**You should number** each item with a **unique counter identifier**(shared for the whole warehouse) starting from 1.

Note: materials that should not be processed by your warehouse should **NOT** be numbered with a unique identifier.

### Input

First read a single **integer** (N) representing how many rows of commands will follow.

Then read N rows of data for the commands.

### Restrictions

Time limit: 250ms (0.25s)  
Memory limit: 16 MB

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  glass front  glass back  glass front | glass - 3 1 2   //explanation: //glass with id 1 is added to the front //glass with id 2 is added to the back //glass with id 3 is added to the front |
| 3  glass front  metal back  metal front | glass - 1  metal - 3 2 |
| 7  glass back  glass back  metal back  banana front  metal front  plastic front  plastic back | glass - 1 2  metal - 4 3  plastic - 5 6   //explanation:  //there are 7 items, but only unique //identifier counter goes only up to 6, //because the “banana” material should not //be processed |