## Problem 4 – Concerts

You are given a **timetable** for the upcoming rock concerts. It consists of **bands**, **towns**, **dates** and **venues**, separated by '**|**'. Your task is to write a JavaScript function that prints at the console a **JSON string** that holds the **towns**, **venues** for each town and **list of bands** for each venue (see the example below).

### Input

The input data is passed to the first JavaScript function found in your code as **array of strings**. Each input line holds a concert description: **band**, **town**, **date** (in format **dd-MMM-YYYY**) and **venue**, separated by '**|**'. The input data will always be valid and in the format described. There is no need to check it explicitly.

### Output

Print at the console a **JSON string** that holds the **towns** (in alphabetical order), the **venues** for each town (in alphabetical order) and a **list of bands** for each venue (in alphabetical order). **Duplicates** should be removed (all strings are **case-sensitive**). Please follow exactly the **JSON format** from the example below.

### Constraints

* The numbers of **input lines** is between 1 and 10 000.
* The values **band**, **town** and **venue** consist of Latin letters, spaces and punctuation marks. Their length is between 1 and 300 characters. Leading and trailing **whitespace** should be removed.
* Allowed working time for your program: 0.2 seconds.
* Allowed memory: 16 MB.

### Examples

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| **Input** |
| ZZ Top | London | 2-Aug-2014 | Wembley Stadium  Iron Maiden | London | 28-Jul-2014 | Wembley Stadium  Metallica | Sofia | 11-Aug-2014 | Lokomotiv Stadium  Helloween | Sofia | 1-Nov-2014 | Vassil Levski Stadium  Iron Maiden | Sofia | 20-June-2015 | Vassil Levski Stadium  Helloween | Sofia | 30-July-2015 | Vassil Levski Stadium  Iron Maiden | Sofia | 26-Sep-2014 | Lokomotiv Stadium  Helloween | London | 28-Jul-2014 | Wembley Stadium  Twisted Sister | London | 30-Sep-2014 | Wembley Stadium  Metallica | London | 03-Oct-2014 | Olympic Stadium  Iron Maiden | Sofia | 11-Apr-2016 | Lokomotiv Stadium  Iron Maiden | Buenos Aires | 03-Mar-2014 | River Plate Stadium |
| **Output** |
| {"Buenos Aires":{"River Plate Stadium":["Iron Maiden"]},"London":{"Olympic Stadium":["Metallica"],"Wembley Stadium":["Helloween","Iron Maiden","Twisted Sister","ZZ Top"]},"Sofia":{"Lokomotiv Stadium":["Iron Maiden","Metallica"],"Vassil Levski Stadium":["Helloween","Iron Maiden"]}} |
| **Comments** |
| Concerts in Buenos Aires @ River Plate Stadium: Iron Maiden  Concerts in London @ Olympic Stadium: Metallica  Concerts in London @ Wembley Stadium: Helloween, Iron Maiden, Twisted Sister, ZZ Top  Concerts in Sofia @ Lokomotiv Stadium: Iron Maiden, Metallica  Concerts in Sofia @ Vassil Levski Stadium: Helloween, Iron Maiden |