Write a program that reads a general tree of words, and prints its corresponding binary tree following the format of the exercise: “”.

**Input**

Input consists of the description of a tree of words as is explained at the exercise: “”. All the words have less than ten letters.

**Output**

Your program must print the binary tree corresponding to the general tree following the format of the exercise: “”. From the general tree, the associated binary tree can be written directly. Therefore, it is not necessary to construct it explicitly.

**Sample input**

```
12
january 3
february 0
march 2
april 1
may 1
june 0
july 0
august 4
september 0
october 0
november 0
december 0
```

**Sample output**

```
january
         
    august      december
       |          |
   march     september
      |  
    apr
       |  
   may  june
```

**Problem information**

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