

Detect HTML Tags, Attributes and Attribute Values

You are given an *HTML* code snippet of N lines.

Your task is to detect and print all the *HTML* tags, attributes and attribute values.

Print the detected items in the following format:

```
Tag1
Tag2
-> Attribute2[0] > Attribute_value2[0]
-> Attribute2[1] > Attribute_value2[1]
-> Attribute2[2] > Attribute_value2[2]
Tag3
-> Attribute3[0] > Attribute_value3[0]
```

The `->` symbol indicates that the tag contains an attribute. It is immediately followed by the name of the attribute and the attribute value.

The `>` symbol acts as a separator of attributes and attribute values.

If an HTML tag has no attribute then simply print the name of the tag.

Note: Do not detect any *HTML* tag, attribute or attribute value inside the *HTML* comment tags (`<!-- Comments -->`). Comments can be multiline.

All attributes have an attribute value.

Input Format

The first line contains an integer N , the number of lines in the *HTML* code snippet.

The next N lines contain *HTML* code.

Constraints

$$0 < N < 100$$

Output Format

Print the *HTML* tags, attributes and attribute values in order of their occurrence from top to bottom in the snippet.

Format your answers as explained in the problem statement.

Sample Input

```
9
<head>
<title>HTML</title>
</head>
<object type="application/x-flash"
data="your-file.swf"
width="0" height="0">
<!-- <param name="movie" value="your-file.swf" /> -->
<param name="quality" value="high"/>
</object>
```

Sample Output

```
head
title
object
-> type > application/x-flash
-> data > your-file.swf
-> width > 0
-> height > 0
param
-> name > quality
-> value > high
```

Explanation

- **head** tag: Print the *head* tag only because it has no attribute.
- **title** tag: Print the *title* tag only because it has no attribute.
- **object** tag: Print the *object* tag. In the next **4** lines, print the attributes *type*, *data*, *width* and *height* along with their respective values.
- **<!-- Comment -->** tag: Don't detect anything inside it.
- **param** tag: Print the *param* tag. In the next **2** lines, print the attributes *name* along with their respective *values*.