

Problem 7: Edit: Omg thanks for the upvotes!!!

13 Point(s)

Problem ID: `social`

Rank: 2

Introduction

All your ideas have failed. Over and over. Turns out, nobody wants a dating app only for catfishers, a pregnancy test app, or "another programming contest." So screw it! Let's just copy Tumblr and Reddit. Where better to start than with their iconic comment formatting system?

Your task is to create a program that will output a formatted comment thread given a list of comments and their replies.

Program Input

The first line of the input from STDIN will contain a positive integer T denoting the number of test cases that follow. Each test case will have the following input:

- A first line containing a single positive integer n denoting the number of comments on the comment thread.
- The next n lines each represent a posted comment in the format:
`<COMMENT-ID> <REPLY-ID> "<MESSAGE>"`
 - `<COMMENT-ID>` represents the comment's unique ID.
 - `<REPLY-ID>` represents the ID of the comment the post is replying to. If the post is not replying to a comment, `<REPLY-ID>` will be shown as `n/a`
 - `<MESSAGE>` represents the contents of the post.
 - Comments are listed in the order in which they are posted. The comment posted first is listed at the top, and the comment posted last is listed at the bottom.
 - A comment can only reply to a comment listed above it, or none at all.
- A blank line separating individual test cases.

Example Input:

```
3
4
C-A n/a "apple juice > orange"
C-B C-A "orange juice taste like battery acid but you do you"
C-C C-B "cranberry >"
C-D n/a "some dude really said cranberry >"

4
a123 n/a "[deleted]"
b234 a123 "[removed]"
c345 a123 "This comment was removed automatically. Learn more here"
d456 b234 "[deleted]"

6
p1105-20 n/a "Orecchiette is the best pasta shape. This looks awesome"
a1106-20:m p1105-20 "Thank you so much"
a1106-20 n/a "Do you make a roux for the sauce? This looks amazing."
a1107-20 p1105-20 "nah man, fusilli all the way"
p1107-20:m a1107-20 "Fusili is just the worst"
p1109-20 a1106-20 "No roux here. Just milk, cream and parm"
```

Program Output

For each test case, your program should correctly output the formatted comment thread according to the following criteria:

- Each comment should only have its corresponding `<MESSAGE>` displayed.
- A post replying to another comment should be displayed underneath the parent comment, preceded with an additional indent. A reply to a reply should have two additional indents, and so on.
 - Indents are represented with a pipe character `|` followed by a space.
 - If replies already exists under the parent comment, the post should be listed below the most recent reply.
- A comment not replying to anything should not have any indents.
- Parent comments of the same indent-level should be sorted in chronological order.
- Each test case output should be separated by a blank line.

Example Output:

```
apple juice > orange
| orange juice taste like battery acid but you do you
| | cranberry >
some dude really said cranberry >

[deleted]
| [removed]
| | [deleted]
| This comment was removed automatically. Learn more here

Orecchiette is the best pasta shape. This looks awesome
| Thank you so much
| nah man, fusilli all the way
| | Fusili is just the worst
Do you make a roux for the sauce? This looks amazing.
| No roux here. Just milk, cream and parm
```

Problem Constraints

$$T \leq 1.0 \times 10^6$$

$$1 \leq n \leq 1000$$

Assume every `<COMMENT-ID>` is unique.

Assume no `<COMMENT-ID>` is `n/a`

Assume no `<COMMENT-ID>` or `<REPLY-ID>` contains spaces.

Assume no `<MESSAGE>` contains quotes.