

Problem

Submissions
Leaderboard

Snow Howler is the librarian at the central library of the city of HuskyLand. He must handle requests which come in the following forms:

- 1 x y : Insert a book with **y** pages at the end of the **xth** shelf.
- 2 x y : Print the number of pages in the **yth** book on the **xth** shelf.
- 3 x : Print the number of books on the **xth** shelf.

Snow Howler has got an assistant, Oshie, provided by the Department of Education. Although inexperienced, Oshie can handle all of the queries of types 2 and 3. Help Snow Howler deal with all the queries of type 1.

Oshie has used two arrays:

```
int* total_number_of_books;
/*
 * This stores the total number of books on each shelf.
 */

int** total_number_of_pages;
/*
 * This stores the total number of pages in each book of each she
 * The rows represent the shelves and the columns represent the b
 */
```

Change Theme Language: C

```
1 > #include <stdio.h>
14
15 int main()
16 {
17     int total_number_of_shelves;
18     scanf("%d", &total_number_of_shelves);
19
20     int total_number_of_queries;
21     scanf("%d", &total_number_of_queries);
22
23     while (total_number_of_queries--) {
24         int type_of_query;
25         scanf("%d", &type_of_query);
26
27         if (type_of_query == 1) {
28
29             int x, y;
30             scanf("%d %d", &x, &y);
31
32 > } else if (type_of_query == 2) { ...
```

A document is represented as a collection paragraphs, a paragraph is represented as a collection of sentences, a sentence is represented as a collection of words and a word is represented as a collection of lower-case ([a-z]) and upper-case ([A-Z]) English characters.

You will convert a raw text document into its component paragraphs, sentences and words. To test your results, queries will ask you to return a specific paragraph, sentence or word as described below.

Alicia is studying the C programming language at the University of Dunkirk and she represents the words, sentences, paragraphs, and documents using pointers:

- A word is described by **char***.
- A sentence is described by **char****. The words in the sentence are separated by one space (" "). The last word does not end with a space(" ").
- A paragraph is described by **char*****. The sentences in the paragraph are separated by one period (".").
- A document is described by **char******. The paragraphs in the document are separated by one newline("\n"). The last paragraph does not end with a newline.

For example:

Learning C is fun.

Learning pointers is more fun.It is good to have pointers.

Change Theme Language: C

```
1 > #include <stdio.h>
2
3 char* kth_word_in_mth_sentence_of_nth_paragraph(char**** document, int k, int m,
4 int n) {
5
6 }
7
8 char** kth_sentence_in_mth_paragraph(char**** document, int k, int m) {
9
10 }
11
12 char*** kth_paragraph(char**** document, int k) {
13
14 }
15
16 char**** get_document(char* text) {
17
18 }
19
20
21
22
23
24
25 char* get_input_text() {
26     int paragraph_count;
27     scanf("%d", &paragraph_count);
28
29     char p[MAX_PARAGRAPHS][MAX_CHARACTERS], doc[MAX_CHARACTERS];
30     memset(doc, 0, sizeof(doc));
```

Lines: 7 Columns: 1