# Problem 3 - The Final Quest



Create a program that **follows** the given **instructions**. You will receive a **sequence of words on a single line**, separated by a **single space**. They are not correct, so you have to **follow the instructions** to find the **actual message**. You will be receiving commands. Here are the possible ones:

* "Delete {index}":
  + Remove the word **after** the given index **if the word exists** (if its index is valid).
  + Otherwise, skip the command.
* "Swap {word1} {word2}":
  + Find the given words in the collection **if they exist** and **swap** their places.
  + Otherwise, skip the command.
* "Put {word} {index}":
  + **Put** the word at the index before the given one (index - 1) **if the resulting index is valid**.
  + If the word's index is out of range, skip the command.
  + **Exception**: If the given index is **equal to the length of the list**, you should put the word **at the end** of the list.
* "Sort":
  + You should **sort** the words in descending order.
* "Replace {word1} {word2}":
  + Find the **second word** in the collection (**if it exists**) and **replace** it with the **first given word**.
  + Otherwise, skip the command.

Follow them until you receive the "**Stop**" command. After successfully following **the instructions**, you must print the words on a single line, separated by a single space.

### Input

* **On the 1st line**, you are going to receive the collection of words, split by a single space.
* **On the following lines**, you are going to receive **commands** until you receive the "**Stop**" command.

### Output

* Print the words you have gathered on a single line, split by a single space.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Congratulations! You last also through the have challenge!  Swap have last  Replace made have  Delete 2  Put it 4  Stop | Congratulations! You made it through the last challenge! |
| **Comments** | |
| First, we receive the command **"Swap",** so we change the words' positions. The text at this point should look like this:  **Congratulations! You have also through the last challenge!**  After that, we receive **"Replace"**, and we have to replace the **second word** – "have" **with the first** – "made".  Afterward, we have to **delete** the **word**, which is **after the second index**.  And finally, we have to put a word on the **previous** position **before** **4**. | |
| **Input** | **Output** |
| This the my quest! final  Put is 2  Swap final quest!  Delete 2  Stop | This is the final quest! |
| Please, follow the instructions!  Put You 0  Delete 3  Replace me you  Replace follow know  Stop | Please, follow the instructions! |

### JS Examples

The input will be provided as an array of strings.

|  |  |
| --- | --- |
| **Input** | **Output** |
| (["Congratulations! You last also through the have challenge!",  "Swap have last",  "Replace made have",  "Delete 2",  "Put it 4",  "Stop"]) | Congratulations! You made it through the last challenge! |
| **Comments** | |
| First, we receive the command **"Swap",** so we change the words' positions. The text at this point should look like this:  **Congratulations! You have also through the last challenge!**  After that, we receive **"Replace"**, and we have to replace the **second word** – "have" **with the first** – "made".  Afterward, we have to **delete** the **word**, which is **after the second index**.  And finally, we have to put a word on the **previous** position **before** **4**. | |
| **Input** | **Output** |
| (["This the my quest! final",  "Put is 2",  "Swap final quest!",  "Delete 2",  "Stop"]) | This is the final quest! |
| (["Please, follow the instructions!",  "Put You 0",  "Delete 3",  "Replace me you",  "Replace follow know",  "Stop"]) | Please, follow the instructions! |