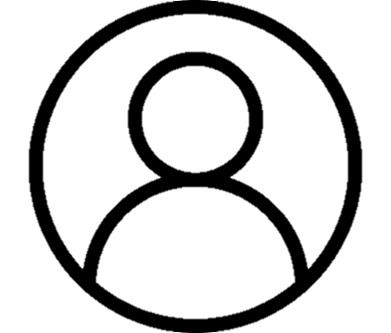
# Problem 1 - Registration



*John wants to register on a sales site, but too many people call him John. It asks you to write a program that will generate an original username.*

On the first line, you will **receive** **the username** that he wants to use in the first place. On the following lines, you will be receiving **commands** until the **"Registration"** command. There are **five** possible commands:

* **"Letters {Lower/Upper}"**
  + **Replace** all letters with lower case or with upper case, then **print** the result.
* "**Reverse {startIndex} {endIndex}"**
  + **Reverse** the substring from the start indexuntil the end index (both inclusive), then **print** it. Do **NOT** change it in the username.

**Note:** Check if the indices are valid. If they aren't - skip the command. An index is valid when it is **non-negative** and **less than the size** of the collection.

* "**Substring {substring}"**
  + If the username **contains** **the** **given substring**, **cut** it out and **print** the result without the cut substring.
  + Otherwise, print:

**"The username {string} doesn't contain {substring}."**

* "**Replace {char}"**
  + **Replace** all occurences of the **given char** with a **dash** (**-**) and **print** the result.
* "**IsValid {char}"**
  + For a username to be **valid,** it must contain **the given char**.If it is, print **"Valid username."**.
  + Otherwise, print: **"{char} must be contained in your username."**

### Input

* On the **first line,** you are going to receive the **string**.
* On the following **lines**, until the **"Registration"** command is received, you will be receiving commands.
* All commands are **case-sensitive**.

### Output

* **Print** the **output** of every **command** in the **format** **described** **above**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| John  Letters Lower  Substring SA  IsValid @  Registration | john  The username john doesn't contain SA.  @ must be contained in your username. |
| ThisIsSoftUni  Reverse 1 3  Replace S  Substring hi  Registration | sih  ThisIs-oftUni  TsIs-oftUni |