Problem: Compress The String

In this task, we would like for you to appreciate the usefulness of the groupby() function of itertools . To read more about this function, Check this out .

You are given a string S. Suppose a character 'c' occurs consecutively X times in the string. Replace these consecutive occurrences of the character 'c' with $(X,\ c)$ in the string.

For a better understanding of the problem, check the explanation.

Input Format

A single line of input consisting of the string S.

Output Format

A single line of output consisting of the modified string.

Constraints

All the characters of S denote integers between 0 and 9.

$1 \le |\ S\ | \le 10^4$

Sample Input

```
1222311
```

Sample Output

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(1, 1) (3, 2) (1, 3) (2, 1)
```

Explanation

First, the character 1 occurs only once. It is replaced by $(1,\ 1)$. Then the character 2 occurs three times, and it is replaced by $(3,\ 2)$ and so on.

Also, note the single space within each compression and between the compressions.