Processing strings

Compression algorithm

Upon learning that DNA is not a random string, freshmen of the Bioinformatics Institute from the informatics group suggested using a compression algorithm that compresses repeated characters in a string.

Encoding is performed as follows: The string **"aaaabbcaa"** is converted into **"a4b2c1a2"**, that is, the groups of the same characters of the input string are replaced by the symbol and the number of its repetitions in this string.

Write a program, which reads the string, encodes it by this algorithm and outputs the encoded sequence. The encoding must be case sensitive.

Note, string can contain only a single character

Sample Input 1:

In [ ]:
```
aaaabbcaa
```

Sample Output 1:

In [ ]:
```
a4b2c1a2
```

Sample Output 2:

In [ ]:
```
a1b1c1
```

Sample Input 3:

In [ ]:
```
aaaaa
```

Sample Output 3:

In [ ]:
```
a5
```

Source: JetBrains Academy