604. Design Compressed String Iterator

Easy 335 118 Add to List Share

Design and implement a data structure for a compressed string iterator. The given compressed string will be in the form of each letter followed by a positive integer representing the number of this letter existing in the original uncompressed string.

Implement the StringIterator class:

- `next()` Returns **the next character** if the original string still has uncompressed characters, otherwise returns a **white space**.
- `hasNext()` Returns true if there is any letter needs to be uncompressed in the original string, otherwise returns `false`.

Example 1:

```
Input
["StringIterator", "next", "next", "next", "next", "next", "next",
"hasNext", "next", "hasNext"]
[["L1e2t1C1o1d1e1"], [], [], [], [], [], [], [], [], []]
Output
[null, "L", "e", "e", "t", "C", "o", true, "d", true]

Explanation
StringIterator stringIterator = new StringIterator("L1e2t1C1o1d1e1");
stringIterator.next(); // return "L"
stringIterator.next(); // return "e"
stringIterator.next(); // return "e"
stringIterator.next(); // return "t"
stringIterator.next(); // return "C"
stringIterator.next(); // return "o"
stringIterator.hasNext(); // return True
stringIterator.next(); // return "d"
stringIterator.hasNext(); // return True
```

Constraints:

- `1 <= compressedString.length <= 1000`
- `compressedString` consists of lower-case an upper-case English letters and digits.
- The number of a single character repetitions in `compressedString` is in the range `[1, 10^9]`
- At most `100` calls will be made to `next` and `hasNext`.

Accepted 24,830 Submissions 63,909

Seen this question in a real interview before? Yes No

Companies

Related Topics

Similar Questions

Java Autocomplete

```java
class StringIterator {

    public StringIterator(String compressedString) {

    }

    public char next() {

    }

    public boolean hasNext() {

    }
}

/**
 * Your StringIterator object will be instantiated and called as such:
 * StringIterator obj = new StringIterator(compressedString);
 * char param_1 = obj.next();
 * boolean param_2 = obj.hasNext();
 */
```