

StringCompression.java

```

1  package String;
2
3  public class StringCompression {
4      public static String compress(String input) {
5          int count = 1;
6          String compressedString = "";
7          if (input.length() == 1) {
8              return "" + input.charAt(0);
9          }
10         for (int i = 0; i < input.length() - 1; i++) {
11             if (input.charAt(i) == input.charAt(i + 1)) {
12                 count = count + 1;
13             }
14             if ((i + 1) == input.length() - 1 && input.charAt(i + 1) == input.charAt(i)) {
15                 compressedString = appendCount(compressedString, count, input.charAt(i));
16                 break;
17             } else if (input.charAt(i) != input.charAt(i + 1)) {
18                 if ((i + 1) == input.length() - 1) {
19                     compressedString = appendCount(compressedString, count, input.charAt(i)) + input.charAt(i + 1);
20                     break;
21                 } else {
22                     compressedString = appendCount(compressedString, count, input.charAt(i));
23                     count = 1;
24                 }
25             }
26         }
27         return compressedString;
28     }
29     public static String appendCount(String res, int count, char ch) {
30         if (count > 1) {
31             res += ch + "" + count;
32             count = 1;
33         } else {
34             res += ch + "";
35         }
36         return res;
37     }
38 }

```

Mutations

```

7  1. negated conditional → KILLED
8  1. replaced return value with "" for String/StringCompression::compress → KILLED
10 1. changed conditional boundary → SURVIVED
   2. negated conditional → KILLED
   3. Replaced integer subtraction with addition → SURVIVED
11 1. negated conditional → KILLED
   2. Replaced integer addition with subtraction → KILLED
12 1. Replaced integer addition with subtraction → KILLED
   1. Replaced integer subtraction with addition → KILLED
   2. Replaced integer addition with subtraction → KILLED
14 3. negated conditional → KILLED
   4. Replaced integer addition with subtraction → KILLED
   5. negated conditional → KILLED
17 1. Replaced integer addition with subtraction → KILLED
   2. negated conditional → KILLED
18 1. negated conditional → KILLED
   2. Replaced integer subtraction with addition → KILLED
   3. Replaced integer addition with subtraction → KILLED
19 1. Replaced integer addition with subtraction → KILLED
27 1. replaced return value with "" for String/StringCompression::compress → KILLED
30 1. negated conditional → KILLED
   2. changed conditional boundary → KILLED
36 1. replaced return value with "" for String/StringCompression::appendCount → KILLED

```

Active mutators

- CONDITIONALS_BOUNDARY
- EMPTY_RETURNS
- FALSE_RETURNS
- INCREMENTS
- INVERT_NEGS
- MATH
- NEGATE_CONDITIONALS
- NULL_RETURNS
- PRIMITIVE_RETURNS
- TRUE_RETURNS
- VOID_METHOD_CALLS

Tests examined

- String.StringCompressionTest.stringCompressionTest[3](String,StringCompressionTest) (0 ms)
- String.StringCompressionTest.stringCompressionTest[2](String,StringCompressionTest) (3 ms)
- String.StringCompressionTest.stringCompressionTest[1](String,StringCompressionTest) (10 ms)
- String.StringCompressionTest.stringCompressionTest[0](String,StringCompressionTest) (0 ms)

