IsValidIP.java

```
1    package com.example.string;
2
3    public class IsValidIP {
4        public boolean inRange(int n) { // check if every split is in range 0-255
5  4          if (n >= 0 && n <= 255) {
6  1              return true;
7            }
8  1          return false;
9        }
10
11       public boolean hasLeadingZero(String n) { // check if every split has leading zero or not.
12 2          if (n.length() > 1) {
13 1              if (n.charAt(0) == '0') {
14 1                  return true;
15              }
16          }
17 1          return false;
18       }
19
20       public int isValid(String s) {
21           String[] parts = s.split("\\.");
22 1          if (parts.length != 4) {
23              return 0;
24          }
25          for (String part : parts) {
26 1              if (hasLeadingZero(part)) {
27                  return 0;
28              }
29 1              if (part.length() == 0) {
30                  return 0;
31              }
32              try {
33                  int num = Integer.parseInt(part);
34 1                  if (!inRange(num)) {
35                      return 0;
36                  }
37              } catch (NumberFormatException e) {
38                  return 0;
39              }
40          }
41 1          return 1;
42       }
43 }
```

Mutations

5	1. changed conditional boundary → SURVIVED 2. changed conditional boundary → KILLED 3. negated conditional → KILLED 4. negated conditional → KILLED
6	1. replaced boolean return with false for com/example/string/IsValidIP::inRange → KILLED
8	1. replaced boolean return with true for com/example/string/IsValidIP::inRange → NO_COVERAGE
12	1. changed conditional boundary → KILLED 2. negated conditional → KILLED
13	1. negated conditional → KILLED
14	1. replaced boolean return with false for com/example/string/IsValidIP::hasLeadingZero → KILLED
17	1. replaced boolean return with true for com/example/string/IsValidIP::hasLeadingZero → KILLED
22	1. negated conditional → KILLED
26	1. negated conditional → KILLED
29	1. negated conditional → KILLED
34	1. negated conditional → KILLED
41	1. replaced int return with 0 for com/example/string/IsValidIP::isValid → 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

- com.example.string.IsValidIPTest.test(com.example.string.IsValidIPTest) (0 ms)

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