Han Zhu's Study Notes

Mind nodes, path-finding algorithms, and random garbage collections.

[LeetCode] 65. Valid Number

October 23, 2017

Validate if a given string is numeric.

Some examples:
"0" => true

" 0.1 " => true
"abc" => false
"1 a" => false

"2e10" => true

Note: It is intended for the problem statement to be ambiguous. You should gather all requirements up front before implementing one.

Thought process:

이 사이트에서는 서비스를 제공하고 트래픽을 분석하는 데 Google의 쿠키를 사용합니다. 서비스 품질을 보장하고, 사용 통계를 생성하며, 악용 사례를 감지 및 해결하기 위해 사용자의 IP 주소 및 사용자 에이전트 정보가 성능 및 보 안 측정항목과 함께 Google에 공유됩니다.

자세히 알아보기 확인

- 4. + and can only appear in two positions: at the start of the string or right after e.
- 5. There cannot be characters other than digits, e, point, + or -, or space.

We can use several boolean flags to make these happen.

Solution:

```
1class Solution {
     public boolean isNumber(String s) {
         s = s.trim();
         boolean eSeen = false;
 5
         boolean numberSeen = false;
         boolean pointSeen = false;
         boolean numberAfterE = false;
         for (int i = 0; i < s.length(); i++) {
10
             char c = s.charAt(i);
11
             if (Character.isDigit(c)) {
12
                 numberSeen = true;
13
                 numberAfterE = true;
             } else if (c == 'e') {
                 if (eSeen || !numberSeen) {
15
16
                     return false;
17
                 eSeen = true;
19
                 numberAfterE = false;
             } else if (c == '.') {
20
                 if (eSeen || pointSeen) {
21
                     return false;
23
                 pointSeen = true;
25
             \} else if (c == '+' || c == '-') {
                 if (i != 0 && s.charAt(i - 1) != 'e') {
26
27
                     return false;
28
             } else {
29
30
                 return false;
31
32
33
34
         return numberSeen && numberAfterE;
35
36}
```

Time complexity: O(n).

<

LeetCode Math String

Location: Philadelphia, PA, USA

Popular posts from this blog

[LeetCode] 269. Alien Dictionary

June 29, 2017

There is a new alien language which uses the latin alphabet. However, the order among letters are unknown to you. You receive a list of non-empty words from the dictionary, where words are sorted lexicographically by the rules of this new language. Derive the order of letters in this language.

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[LeetCode] 253. Meeting Rooms II

March 11, 2017

Given an array of meeting time intervals consisting of start and end times [[s1,e1],[s2,e2],...] (s i < e i), find the minimum number of conference rooms required. For example, Given [[0, 30],[5, 10],[15, 20]], return 2. Thought process: The idea is to first sort the array based on start time, so we can ...

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[LeetCode] 261. Graph Valid Tree

July 29, 2017

Given n nodes labeled from 0 to n - 1 and a list of undirected edges (each edge is a pair of nodes), write a function to check whether these edges make up a valid tree. For example: Given n = 5 and edges = [[0, 1], [0, 2], [0, 3], [1, 4]], return true. Given n = 5 and edges = [[0, 1], [1, 2], [2, 3], | ...

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