独数\_LeetCode\_36\_ValidSudoku\_37\_SudokuSolver\_Medium\_Hard

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\* 独数\_LeetCode\_36\_ValidSudoku\_37\_SudokuSolver\_Medium\_Hard

\* T1 : 有效的独数\_LeetCode\_36\_ValidSudoku

\* T2 : 独数解法\_LeetCode\_37\_SudokuSolver

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# T1\_有效的独数\_LeetCode\_36\_ValidSudoku

## 题目介绍

\* 难度：Medium

\* DateTime:2018-10-15

\* https://leetcode.com/problems/valid-sudoku/description/

\* 题目介绍：

\* Determine if a 9x9 Sudoku board is valid. Only the filled cells need to be validated

\* according to the following rules:

\* <p>

\* 1. Each row must contain the digits 1-9 without repetition.

\* 2. Each column must contain the digits 1-9 without repetition.

\* 3. Each of the 9 3x3 sub-boxes of the grid must contain the digits 1-9 without repetition.

\* <p>

\* 省略，见LeetCode。

\* A partially filled sudoku which is valid.

\* <p>

\* The Sudoku board could be partially filled, where empty cells are filled with the character '.'.

\* <p>

\* Example 1:

\* <p>

\* Input:

\* [

\* ["5","3",".",".","7",".",".",".","."],

\* ["6",".",".","1","9","5",".",".","."],

\* [".","9","8",".",".",".",".","6","."],

\* ["8",".",".",".","6",".",".",".","3"],

\* ["4",".",".","8",".","3",".",".","1"],

\* ["7",".",".",".","2",".",".",".","6"],

\* [".","6",".",".",".",".","2","8","."],

\* [".",".",".","4","1","9",".",".","5"],

\* [".",".",".",".","8",".",".","7","9"]

\* ]

\* Output: true

\* Example 2:

\* <p>

\* Input:

\* [

\* ["8","3",".",".","7",".",".",".","."],

\* ["6",".",".","1","9","5",".",".","."],

\* [".","9","8",".",".",".",".","6","."],

\* ["8",".",".",".","6",".",".",".","3"],

\* ["4",".",".","8",".","3",".",".","1"],

\* ["7",".",".",".","2",".",".",".","6"],

\* [".","6",".",".",".",".","2","8","."],

\* [".",".",".","4","1","9",".",".","5"],

\* [".",".",".",".","8",".",".","7","9"]

\* ]

\* Output: false

\* Explanation: Same as Example 1, except with the 5 in the top left corner being

\* modified to 8. Since there are two 8's in the top left 3x3 sub-box, it is invalid.

\* Note:

\* <p>

\* A Sudoku board (partially filled) could be valid but is not necessarily solvable.

\* Only the filled cells need to be validated according to the mentioned rules.

\* The given board contain only digits 1-9 and the character '.'.

\* The given board size is always 9x9.

## 思路分析

## Java代码

# T2\_独数解法\_LeetCode\_37\_SudokuSolver

## 题目介绍

\* T2\_独数解法\_LeetCode\_37\_SudokuSolver

\* 难度：Hard

\* DateTime:2018-10-15

\* https://leetcode.com/problems/sudoku-solver/description/

\* 题目介绍：

\* Write a program to solve a Sudoku puzzle by filling the empty cells.

\* <p>

\* A sudoku solution must satisfy all of the following rules:

\* <p>

\* Each of the digits 1-9 must occur exactly once in each row.

\* Each of the digits 1-9 must occur exactly once in each column.

\* Each of the the digits 1-9 must occur exactly once in each of the 9 3x3 sub-boxes of the grid.

\* Empty cells are indicated by the character '.'.

\* 省略，见LeetCode。

\* Note:

\* <p>

\* The given board contain only digits 1-9 and the character '.'.

\* You may assume that the given Sudoku puzzle will have a single unique solution.

\* The given board size is always 9x9.

\* <p>

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## 思路分析

## Java代码