

Leet Code

Day-21 Q-02 Sudoku Solver

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

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

1. Each of the digits 1–9 must occur exactly once in each row.
2. Each of the digits 1–9 must occur exactly once in each column.
3. Each of the digits 1–9 must occur exactly once in each of the 9 3×3 sub-boxes of the grid.

Empty cells are indicated by the character '.'.

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

A sudoku puzzle...

5	3	4	6	7	8	9	1	2
6	7	2	1	9	5	3	4	8
1	9	8	3	4	2	5	6	7
8	5	9	7	6	1	4	2	3
4	2	6	8	5	3	7	9	1
7	1	3	9	2	4	8	5	6
9	6	1	5	3	7	2	8	4
2	8	7	4	1	9	6	3	5
3	4	5	2	8	6	1	7	9

...and its solution numbers marked in red.

Note:

- 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.