

CREATIVE PROBLEM SOLVING

sandeep@beingzero.in

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SUDOKU VALIDATOR

CONCEPTS: Arrays, Loops

LEVEL: Easy

SUDOKU is a popular board game of size 9x9 where a valid solution needs to have following three conditions met:

1. A row should have number 1-9 only once. [9x9]
2. A column should have number 1-9 only once. [9x9]
3. Each 3x3 block should have number 1-9 only once. [3x3]

PROBLEM STATEMENT

Given a filled SUDOKU board in the form of 2D matrix of size 9x9, write a function that validates if solution is valid or not.

Input

9x9 Array of integers

Output

A String - VALID or INVALID

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SAMPLE TEST CASES

	Input	Output
Test Case 1	8 3 5 4 1 6 9 2 7 2 9 6 8 5 7 4 3 1 4 1 7 2 9 3 6 5 8 5 6 9 1 3 4 7 8 2 1 2 3 6 7 8 5 4 9 7 4 8 5 2 9 1 6 3 6 5 2 7 8 1 3 9 4 9 8 1 3 4 5 2 7 6 3 7 4 9 6 2 8 1 5	VALID
Test Case 2	8 3 5 4 1 6 9 2 7 2 9 6 8 5 7 4 3 1 4 1 7 2 9 1 3 6 5 8 5 6 9 1 3 4 7 8 2 1 2 3 6 7 8 5 4 9 7 4 8 5 2 9 1 6 3 6 5 2 7 8 1 3 9 4 9 8 1 3 4 1 0 2 7 6 3 7 4 9 6 1 2 8 1 5	INVALID
Test Case 3	8 3 5 4 1 6 9 2 7 2 9 6 8 5 7 4 3 1 4 1 7 2 9 3 6 5 8 5 6 2 1 3 4 7 8 2 1 2 3 6 7 8 5 4 9 7 4 8 5 2 1 1 6 3 6 5 2 7 8 1 3 9 4 9 8 1 3 4 5 2 7 6 3 7 4 9 6 2 8 1 5	INVALID
Test Case 4	8 3 5 4 1 6 9 2 7 2 9 6 8 -5 7 4 3 1 4 1 7 2 9 3 6 5 8 5 6 2 1 3 4 7 8 2 1 2 3 6 7 8 5 4 9 7 4 8 5 2 1 1 6 3 6 5 2 7 8 1 3 9 4 9 8 1 0 4 5 2 7 6 3 7 4 9 6 2 8 1 5	INVALID