Valid Sudoku

We must check rows, columns and 3x3 sub-boxes for duplicates among filled cells; the approach is hash sets for Validation.

- Use 3 arrays of hash sets (or boolean arrays):
    1. rows[9] → track digits in each row.
    2. cols[9] → track digits in each column
    3. boxes[9] → track digits in each 3x3 sub-box.
- For each cell (i,j):
    - Skip if cell is '.'
    - Compute box Index $= (i/3) * 3 + (j/3)$ for the 3x3 box
    - Otherwise, add digit to respective sets.

- Time: $O(81)$ → constant since board is fixed 9x9.
- Space: $O(81)$ for storing sets.