A Design the Key - Summary

Report Issue (https://github.com/LeetCode-Feedback/LeetCode-Feedback/issues)

Here are some takeaways about how to design the key for you.

1. When the order of each element in the string/array doesn't matter, you can use the sorted string/array as the key.

$(X_0, X_5, X_3, X_4, X_2, X_1)$ →sort→ $(X_0, X_1, X_2, X_3, X_4, X_5)$

$(X_3, X_2, X_5, X_1, X_0, X_4)$ →sort→
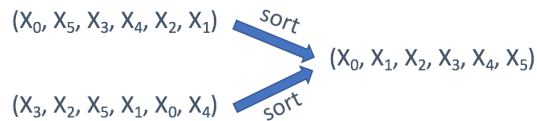
2. If you only care about the offset of each value, usually the offset from the first value, you can use the offset as the key.

$(X_0, X_1, X_2, X_3, X_4, X_5)$ —offset→ $(0, X_1 - X_0, X_2 - X_0, X_3 - X_0, X_4 - X_0, X_5 - X_0)$
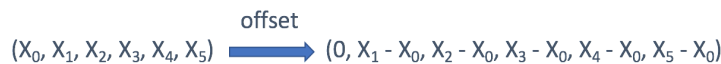
3. In a tree, you might want to directly use the TreeNode as key sometimes. But in most cases, the serialization of the subtree might be a better idea.
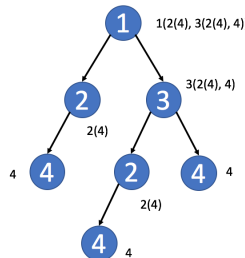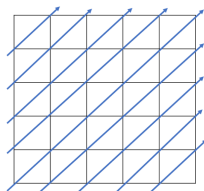

4. In a matrix, you might want to use the row index or the column index as key.

5. In a Sudoku, you can combine the row index and the column index to identify which block this element belongs to.
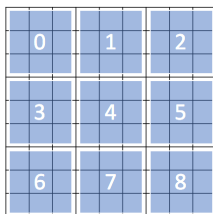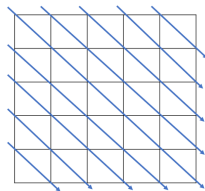

(i, j) ➔ (i / 3) * 3+ j / 3

6. Sometimes, in a matrix, you might want to aggregate the values in the same diagonal line .

Anti-Diagonal Order   Diagonal Order
(i, j) ➔ i + j   (i, j) ➔ i − j