EEP 702 Assignment 1

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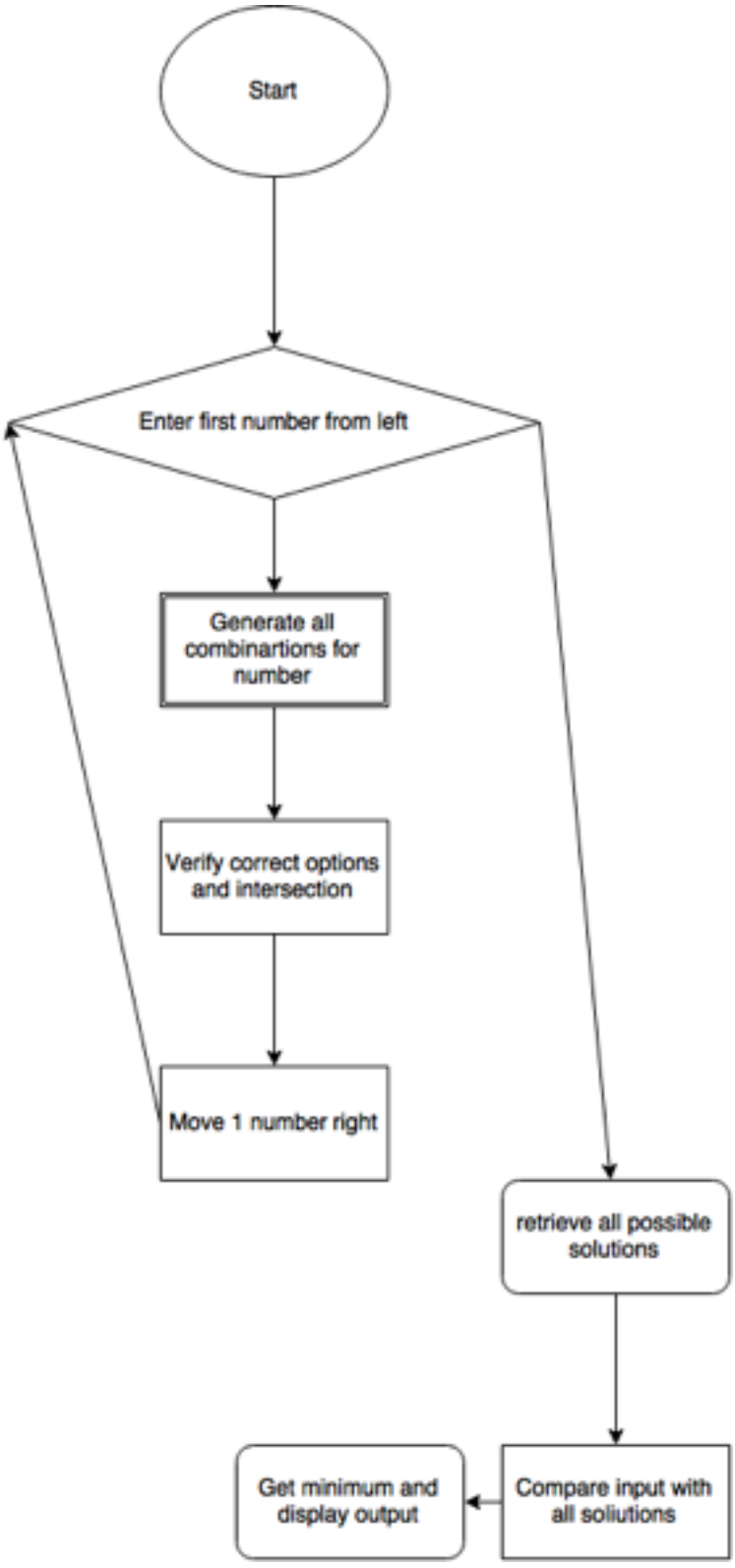
Problem

Is it possible to transform an input 4 × 4 integer array to a solution of a 2 × 2 sudoku*?
If yes, then design an algorithm and implement it.

Implementation

We generate the solution iteratively. Starting from the topmost and leftmost cell, we generate all possible valid numbers from that cell. Then, move to the cell directly right to it and calculate the possible numbers. Based on the constraints of the quadrant, the row and the column, we generate the next set of numbers by using the intersection. Using this, we can generate all the possible 288 combinations in 4X4 Sudoku and store in the file.
When we execute the program, we can retrieve all possible combinations and compare the “variance”. We then print the valid board with least variance.

Flowchart



Conclusion

Thus we have calculated minimum varience and 4 by 4 matrix which generate 288 possible combinations