

Date : 08/31/2021

Group member: Zhaoyang Ding

I use Deterministic Optimization formulation and install pulp to create Sudoku game. PuLP is an advanced modeling library that uses the powerful features of the Python language to allow users to use the natural expressions of the Python language to create programs, avoiding special syntax and keywords as much as possible. “Lpsum” in Pulp can easily add constraints to the Sudoku game. The reason I choose deterministic optimization formulation is because the running code of this method is consistent with the backtracking and the cases provided in the classroom. Each row, column and each 3x3 grid can only appear once 1-9 to ensure the accuracy of the Sudoku game. After I put my code in dataset A and B, the success rate is not match my expectations since every time it runs to the same result. I think the mistake I made is fix the number in each box which lead the dataset did not run successfully. The success rate in dataset A is 44%, and the rate in dataset b is 50%.