SudokuPuzzleFile = ask user for input

read SudokuPuzzleFile

if SudokuPuzzleFile is invalid show warning

otherwise

convert loaded SudokuPuzzleFile into matrix

print Sudoku Puzzle matrix

solve Sudoku Puzzle matrix

initialize list of strategies

simple mark-up strategy

naked pair strategy

capture current state of Sudoku Puzzle matrix

capture next state of Sudoku Puzzle matrix after running through first strategy in list

while Sudoku Puzzle matrix is not solved and current state != next state

current state = next state

for each strategy in strategies

next state = state of Sudoku Puzzle matrix after running through strategy

print Sudoku Puzzle matrix

print if Sudoku Puzzle matrix was solved or not

simple mark-up strategy

for each row in matrix

for each col in matrix

if current spot == 0 or current spot’s value has length > 1

rowColPossibilities = get possibilities for row and col based on the current spot

groupPossibilities = get possibilities for the group that current spot is in

current spot = intersection of possibilities for rowColPossibilities and groupPossibilities

naked pair strategy

for each row in matrix

for each col in matrix

if current spot has naked pair in row then eliminate it

if current spot has naked pair in col then eliminate it

if current spot has naked pair in group then eliminate it