

# ***Abstract***

This is 9x9 Sudoku solving project

Provided an unsolved sudoku text file with 0's in place of blanks our programme will be able to solve the sudoku file and returns the fully solved sudoku file.

We will be using python Module - pygame

In our programme we will find the blank spaces by iterating from left to right and fill in a valid number such that it neither exists in the row or column and also in the 3x3 square.

If there is a situation such that 2 or more numbers are valid for a given empty cell then we will proceed by taking one of the numbers and return to this step using a backtracking algorithm if no number is valid in the cells and then proceed with the next number.

We will repeat these steps till we find valid numbers for all blank cells.

We will also try to make a Graphical User Interface using pygame so that it looks like an actual sudoku game.

We are gonna start this project after our endsems, So we will make the programme in the first 2 or 3 days and make the GUI in the following week.

Since all of our team members are freshies and this is our first project with python, Our problem solving skills will definitely improve by doing this project, we will learn the backtracking algorithm and also we will also get a good exposure in GUI development.*(We were not able to get another better idea with our exams coming and given time constraints so we went with this project).*

Reference: <https://youtu.be/jl5yUEdekEM>