

# **PROJECT REPORT**

## **PURPOSE**

To solve a Sudoku given by user or to give user a Sudoku to solve by himself, until he requires a solution.

## **GENERIC TECHNOLOGY**

C++, Windows 8

## **CONTENTS**

Program Consists of :

- Sudoku Solver
- Sudoku Board
- Files To use as sudokus for users to solve

## **FUNCTIONS**

Functions created and used are:

```
void user_input(int (&arr)[n][n]);
```

```
int solver(int (&arr)[n][n]);
```

```
void output(int arr[n][n]);
```

```
void USER_FILL(int (&arr)[n][n]);
```

```
void pauseAndSave(int (&arr)[n][n]);
```

```
int str2dig(string str);
```

## **FEATURES OF PROGRAM**

Graphics was tried in the beginning but was dropped due to lack of knowledge and time

Program features and easy to use input and output frame and is as user friendly as possible. Rows and columns are marked for ease of input.

Users can choose from asking for a solution for a Sudoku they wish to solve and asking the computer to select a random Sudoku to give them to solve. They can even know the solution to the computer's Sudoku if they cannot solve it.

Header files used are:

iostream.h, stdio.h, stdlib.h, string.h, math.h, sstream.h, time.h

## **WORK DISTRIBUTION**

Different functionalities were made by different people:

USER\_FILL, Programme testing- Ashna Gaur(Roll 140050087)

Input and Output, User Manual- Monika(Roll 145090007)

Solver and pauseAndSave , Program Testing, Final Stage Report -Saaransh Kulkarni (Roll 145090017)

Integrating all functionalities, SRS Documentation - Bhuban Ray Sarkar(Roll 145280027)

Also everyone contributed in every functionality adequately for it to stand as one usable program.

### **SCOPE**

Although satisfactory as a non graphics project, graphics component can be incorporated in it by further study to make it truly user friendly.

Also different types of Sudoku such as 4x4, 16x16, 25x25 can be incorporated

Scoring and timing can be incorporated

### **LIMITATIONS**

Screen might appear a little cluttered due to messages on terminal