 Synopsis on

“SUDOKU PROJECT”

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ABSTRACT

In this report, we present the detailed development and implementation of simple Sudoku game. The Sudoku game consists of graphical user interface, puzzle solver; implemented using python. The solver finds the solution to the puzzles entered by the user. This project gives an insight in to the different aspects of python programming

INTRODUCTION

***Sudoku*** is the Japanese abbreviation of a phrase meaning the digits must remain single, also known as ***Number Place***, where ***Su*** means number, ***doku*** which translates as single or bachelor. Sudoku is not a mathematical or arithmetical puzzle. It works just as well if the numbers are substituted with letters or some other symbols, but numbers work best. The aim of the puzzle is to enter a numerical digit

From 1 through 9 in each cell of a 9×9 grid made up of 3×3 sub squares or subgrids, starting with various digits given in some cells; each row, column, and sub squares region must contain each of the numbers 1 to 9 exactly once. Throughout this document we refer to the whole puzzle as the **grid/game board**, a 3x3 sub grid as a **block** and the individual grids that contains the number as a **cell**

History:

The first Sudoku puzzle was created in 1979. In New York City the Sudoku puzzle appear first, which was published by the specialist puzzle publisher Dell Magazines in their magazine Dell Pencil Puzzles and word Games. First it was printed under the name “number place”. Howard Garns, a retired architect and freelance puzzle constructor designed this first puzzle. This mathematical construction is inspired by the Latin square, invention of Leonhard Euler. Later the puzzle was introduced in Japan by Nikoli during 1984 as "Suji wa dokushin ni kagiru", which can be translated as "the numbers must be single" or "the numbers must occur only once", later it abbreviated as Sudoku. The Sudoku puzzle can use symbols or colors instead of numerals. Sudoku is still a trademark owned by Nikoli. The the game's popularity really took off in 2005; it can now be found in many newspapers and magazines around the world.

Rules:

Solving a Sudoku puzzle can be rather tricky, but the rules of the game are quite simple. Solving a Sudoku puzzle does **not** require knowledge of mathematics; simple logic suffices. The objective of Sudoku is to enter a digit from 1 through 9 in each cell, in such a way that:

I. Each horizontal **row** contains each digit exactly **once**

II. Each vertical **column** contains each digit exactly **once**

III. Each sub grid or **region** contains each digit exactly **once**

MODULES

1. Start
2. Solve
3. Login
4. Reset
5. Sound on
6. Sound off
7. Save
8. Register

LIBRARYS USED:

1. Strings

2. File handling and Exception handling

3. Classes and objects

4. Range function

5. for loop

6. If…elif…else statements

7. Buttons and its properties (GUI)

8. Tkcalender

9.import os

10.tkinter

11.Dateentry

12.pil

13.pygame

TEAM WORK:

1. Naidu.NagendraBabu\_11805086\_Roll.no-A17

---- File handling, coding

2. Shaik HidayTulla-\_11804627\_B43

---- Graphical User Interface

3. Gadde Satwik\_11801553\_A03

---- Ideology, Background music

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