**PF LAB PROJECT PROPOSAL**

**GUI 2048 GAME**

GROUP MEMBERS:

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INTRODUCTION:

Objective of the game is to keep combining tiles until 2048 is displayed on one of the tiles. Game is played on a 4x4 grid where 2 or 4 is generated at random positions after every move until no row and column is null which is when the all the grid is occupied by numbers or the user yet has won the game. The game proceeds due to the addition of two similar numbers. The game screen will also display the scores of the player as well as the number of moves.

**LIBRARIES**:

* Stdio.h : allows the usage of printf and scanf functions.
* Time.h : allows the generation of random numbers.
* c-type.h: allows the usage of control keys.
* string.h : to record the string(name of the player).
* stdlib.h: allows the program to show a cleared screen when required.
* conio.h: will display the commands on the screen until user hits any keyboard key to proceed using kbhit.

**FEATURES:**

* Nested for loops
* While loop
* Nested functions
* Conditional statements(switch, if/else)
* 2D Arrays
* Strings
* Filing

**Functions:**

Initialization( ), Up( ), DOWN( ), LEFT( ) ,RIGHT( ),START(),DISPLAY(),RANDOM\_VALUE(),SCORE(),

END( ), CHECK(),RECORD( ),MOVE().