*2048 game project*

***Member:***

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***Task Assignment:***

1. Thanh Duy: design core classes.
2. Son Hai: design GUI classes .
3. Trong Nguyen: algorithm.

***Features of game:***

1. Classic 2048 with basic moves.
2. Scoreboard.

***Function of class:***

Tile: smallest component of the game with score on them and can update itself.

MatrixOfTile: handle basic movement (left,right,up,down) and random apperence of tile and calculate score.

GUI: design UI of the game and receive keyboard signal.

Handle Event classes: support GUI.

Game functionalities: basic movement plus keeping track of score and saving score.

***Class diagram***

Matrix: Tile[][]

curScore: jLabel

bestScore:jLabel

MatrixofTile

moveLeft()

moveRight()

moveUp()

moveDown()

newRandomTile()

saveBestScore(int Score)

Value: int

JLabel: jLabel

Tile

getValue()

SetValue(int Value)

getJLabel()

Merge(tile)

JPanel panelMain;

JPanel currentScoreValue;

JPanel bestScoreValue;

JPanel panelTop;

JPanel panelBottom;

JPanel panelMiddle;

GUI

GUI()

CreateTopPanel()

CreateMidPanel()

CreateBottomPanel()

Matrix: MatrixofTile

KeyHandleEvent

keyPressed(Key event )

setMatrix(MatrixofTile)

Matrix: MatrixofTile

NewGameHandleEvent

actionPerformed(ActionEvent)