

WEB 2048

Produced by Hao zhong and Mengcheng Gong

Languages: JS HTML CSS

Use Arrow and WASD to control blocks moving.

Material preparation :

1. Block with different value and background color. Id=block num-num.
2. Background color
3. Score standard.

2 ---->2

4 ---->5

8 ---->10

16---->25

32---->50

64---->125

128---->250

256---->500

512---->1000

1024---->2000

2048---->4000

4096---->8000

8192---->16000

16384---->32000

The score user earned is calculated the blocks shown currently.

Step:

1.Main frame:

Score

Block characteristic

Start, Gameover, Restart.

2. Start:

Randomly generated two num between 2 and 4

3. Moving

UpMoving:

when up key pressed, run UpMoving

move from BOTTOM to TOP

if the top cell of the current cell is 0

=> just move up

if it can merge

=> merge the cell to top and clean the current cell

=> after the merge, check the top cell is 0
=> if it is 0, move the cell the top UNTIL it move to the

FINAL cell

4. Restart

Alert gameover and score. After clicked OK, refresh the game.

JavaScript files:

Init.js:

score: Variable to record how much the user earns in this game currently.

pageBestScore: Variable to record the highest score the user got, which is storage locally(deleted after shutdown the computer)

scoreTable: Mapping the score for every value respectively.

ScoreColorTable: Mapping the color for every value respectively.

BlockTable: Mapping and initialize the game table

Ready: JQuery for loading the scripts.

Refresh: reset function for starting and restarting the game.

Moving.js (game main control file):

KeyPressed: event function to listen arrow and WASD keys pressed.

Moving Function: control the blocks moving after key pressed.

Display Function:

getRandomNumber: randomly choose number between 2(70%) and 4(30%)

getRandomFreeCell: randomly generate a valid block(value equal 0).

canMerge: Judge whether the block can move after one key pressed.

Calculation.js:

showValue: display value to the cell.

updateBlockTable: insert value into the certain block.

Show:According to the scoreTable, scoreColorTable, display the number, update block background color, calculate the score and update the best score.

updateScore: calculated score.