# DEVELOPING 2048 GAME USING HTML, CSS, JAVASCRIPT

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## CONTENT INDEX



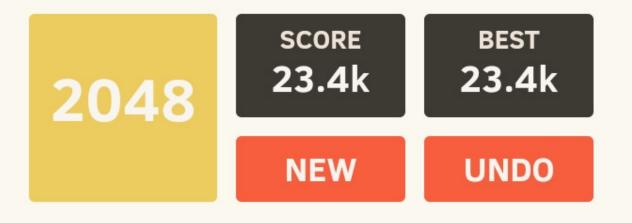
- ABOUT GAME
- WHAT IS 2048
- HOW TO PLAY

- OBJECTIVE
- DATA STRUCTURE USED
- METHODOLOGY

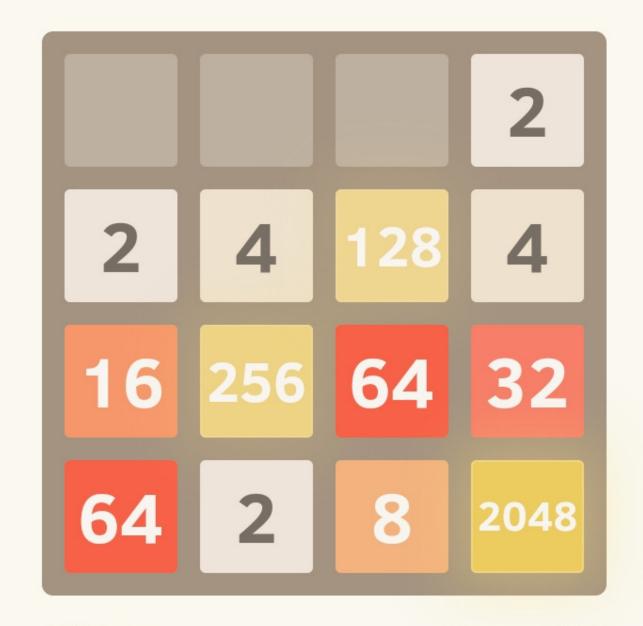
- WORKING OF 2048
- Q & A SESSION

# THERE IS STRENGTH IN NUMBERS BUT ORGANIZING THOSE NUMBERS IS ONE OF THE GREAT CHALLENGES

FUN FACT: JUST WHEN GAME WAS RELEASED THOUSANDS OF PEOPLE HAD ALREADY STARTED PLAYING IT I.E VERY ADDICTIVE



Join the numbers and get to the 4096 tile!



1197 moves 46:57

## OBJECTIVES

1

TO CREATE THE USER FRIENDLY GAME ALSO SHOULD BE EASY TO USE.

2

THE WEBSITE SHOULD USE STACK DATA STRUCTURE TO IMPLEMENT THE GAME

3

THE GAME SHOULD RESTART, SHOULD HAVE SOME FUNCTION TO INDICATE THE SCORE AND SO ON.



### WHAT IS 2048?

- IT'S A PUZZLE GAME DEVELOPED BY GABRIELLE CIRULI
- IT IS VERY SIMPLE YET DIFFICULT PUZZLE THAT FILLS YOU WITH RELAXATION AND FUN.
- 2048 IS SINGLE PLAYER GAME WHICH IS PLAYED ON 4\*4 BOARD WHICH HAS TOTAL OF SIXTEEN TILES.
- YOU JOIN THE NUMBERS AND GET TO 2048 TILE. COME LETS DIVE INTO THE CHALLENGE

#### **CAUTION:**

HIGHLY ADDICTIVE

2048

### HOW TO PLAY?

### 2048:

- 4\*4 GRID
- SLIDE THE TILES RIGHT, LEFT, UP AND DOWN.
- WHEN THE SAME NUMBERS TOUCH THEY COMBINE.
- AFTER EACH MOVE A 2 OR 4 IS ADDED INTO RANDOM EMPTY TILE.
- GOAL OF PRODUCING A TILE
   WITH "2048" OR MAXIMUM SCORE

2			4
	2		8
32	64	8	2
2	8	32	128

# DATA STRUCTURE USED

- WE HAVE USED STACK DATA STRUCTURE TO IMPLEMENT THE GAME.
- ITS A LINEAR DATA STRUCTURE WHICH FOLLOWS A PARTICULAR ORDER IN WHICH OPERATIONS ARE PERFORMED.
- IT USES STACK DATA STRUCTURE IN ADDING NUMBERS ZERO'S (PUSH OPERATION) IN A ROW AND COLUMNS AND ALSO TO RANDOMLY ADDING 2 OR 4 IN THE RANDOM TILE.

(MORE DESCRIBED IN THE REPORT)

### **METHODOLOGY**

We have used Html, css and javascript for the project. Html and some what javascript has been used for structure of webpage and for the contents

For designing we have implemented css concepts

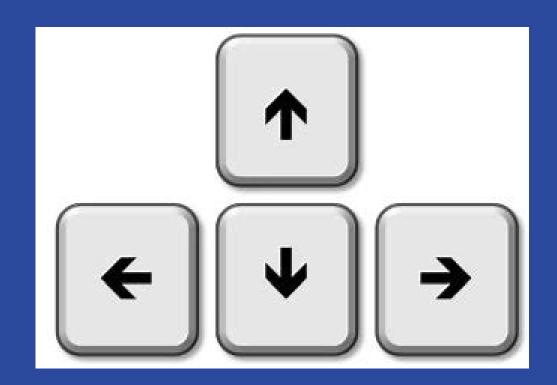
For inner workings javascript has been used

Javascript has been used for interactive behaviour i.e to interact with web pages



# GAME BEGINS

Use below buttons (while using Laptop) to slide up,down,left and right



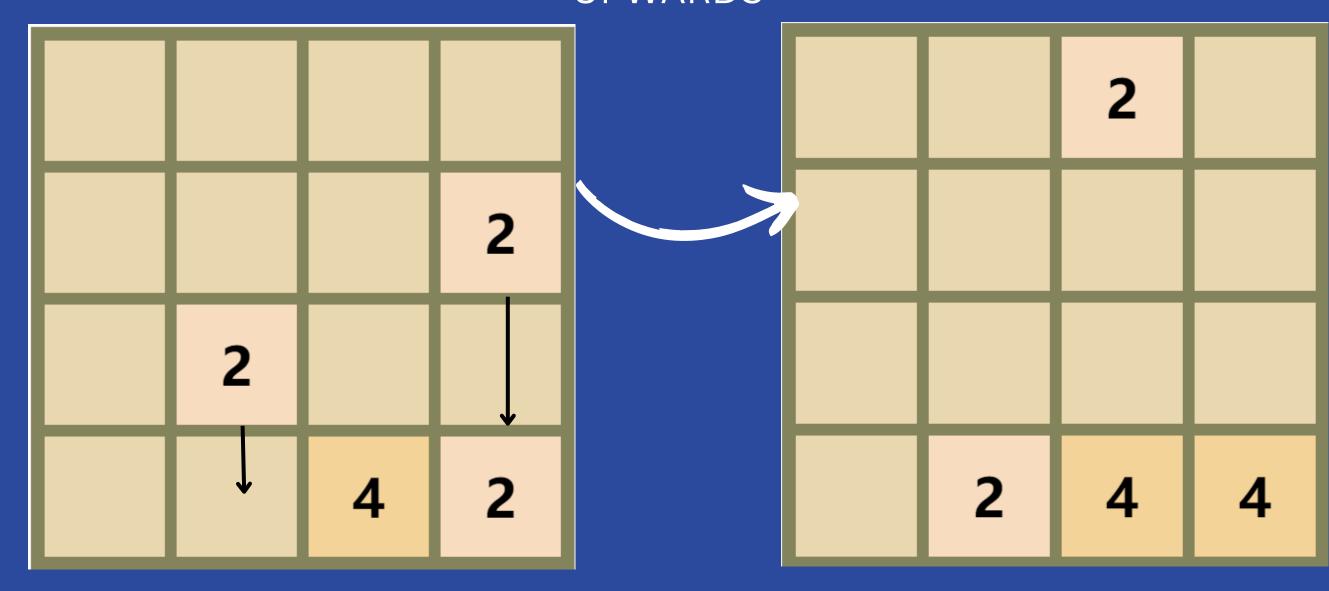


# Down Shift

UP SHIFT IS SAME AS DOWN SHIFT ONLY MOVEMENT IS

UPWARDS

AFTER SHIFTING DOWN, ALL ELEMENTS IN EACH COLUMN MOVES IN DOWNWORD DIRECTION AS MUCH AS THEY CAN. AND IF TWO ADJACENT **ELEMTS IN EACH** COLUMN ARE EQUAL THEN THEY GET ADDED. AFTER THAT A NEW NUMBER 2 OR 4 GET ADDED IN A RANDOM TILE WHICH EVER EMPTY.

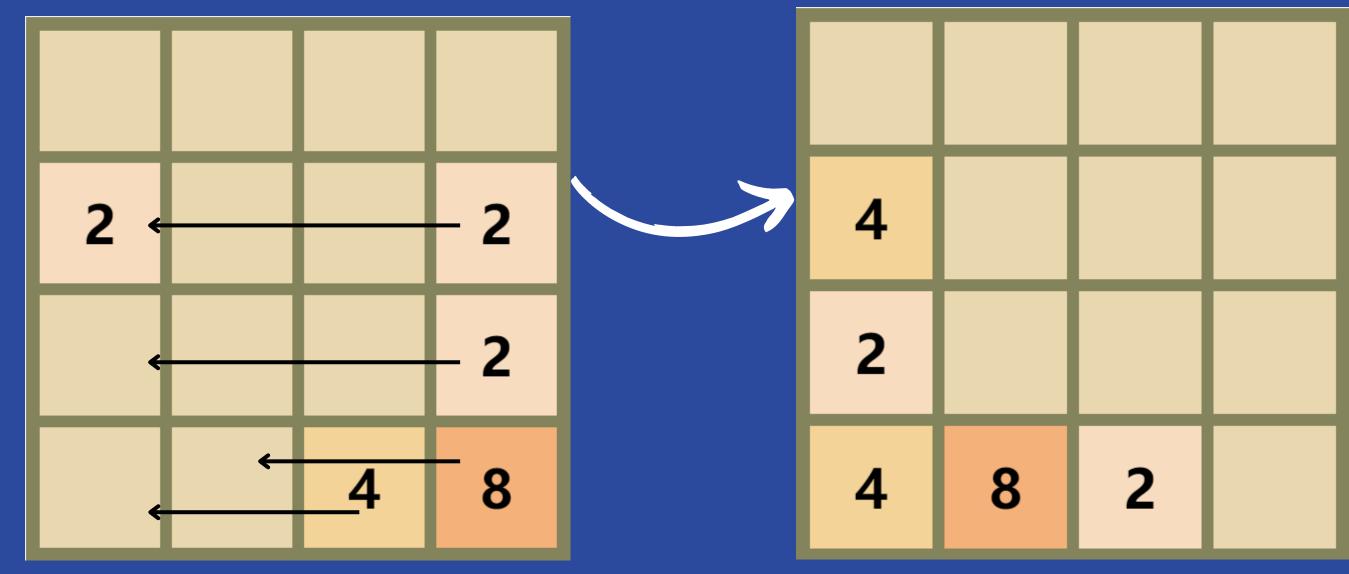


# LEFT Shift

RIGHT SHIFT IS SAME AS LEFT SHIFT ONLY MOVEMENT IS

RIGHTWARDS

AFTER SHIFTING DOWN, ALL ELEMENTS IN EACH COLUMN MOVES IN LEFTWORD DIRECTION AS MUCH AS THEY CAN. AND IF TWO ADJACENT ELEMTS IN EACH ROW ARE EQUAL THEN THEY GET ADDED. AFTER THAT A NEW NUMBER 2 OR 4 GET ADDED IN A RANDOM TILE WHICH EVER EMPTY.

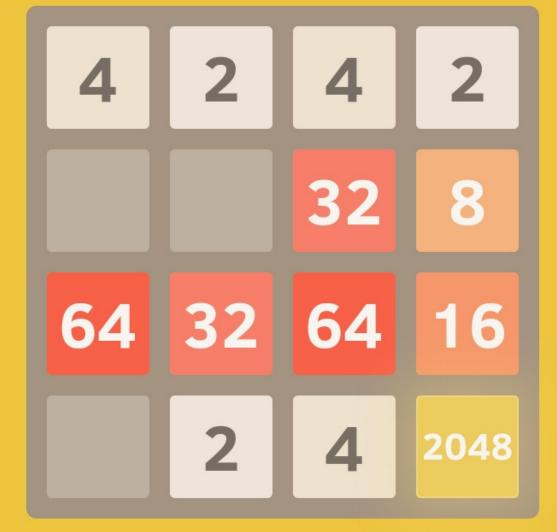


# WON GAME

AFTER MAKING 2048 TILE,
WE WON THE GAME AND
AFTER THAT WE CAN PLAY
FOR 4086,8192 AND
FURTHER TILES AS OUR
WISH

### You win!

You unlocked the 2048 tile with 1,037 moves in 31:28.



# Q&ASESSION THANKYOU!!

