

UNBLOCK ME

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PROBLEM STATEMENT

- Giving the user a solvable UNBLOCK ME puzzle which may not have a unique solution, and updating the high score that the user has made in the number of moves and the number of seconds taken to finish the level.
- To implement high score of the time taken and the number of moves of each level.
- Upon an appropriate prompt from the user, giving the instruction to play the game.



Unblock Me Demo Video

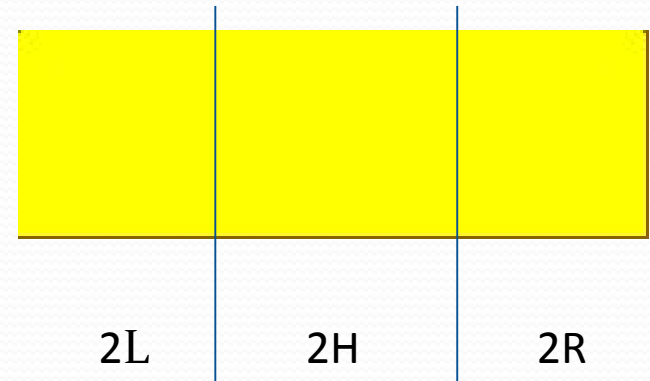
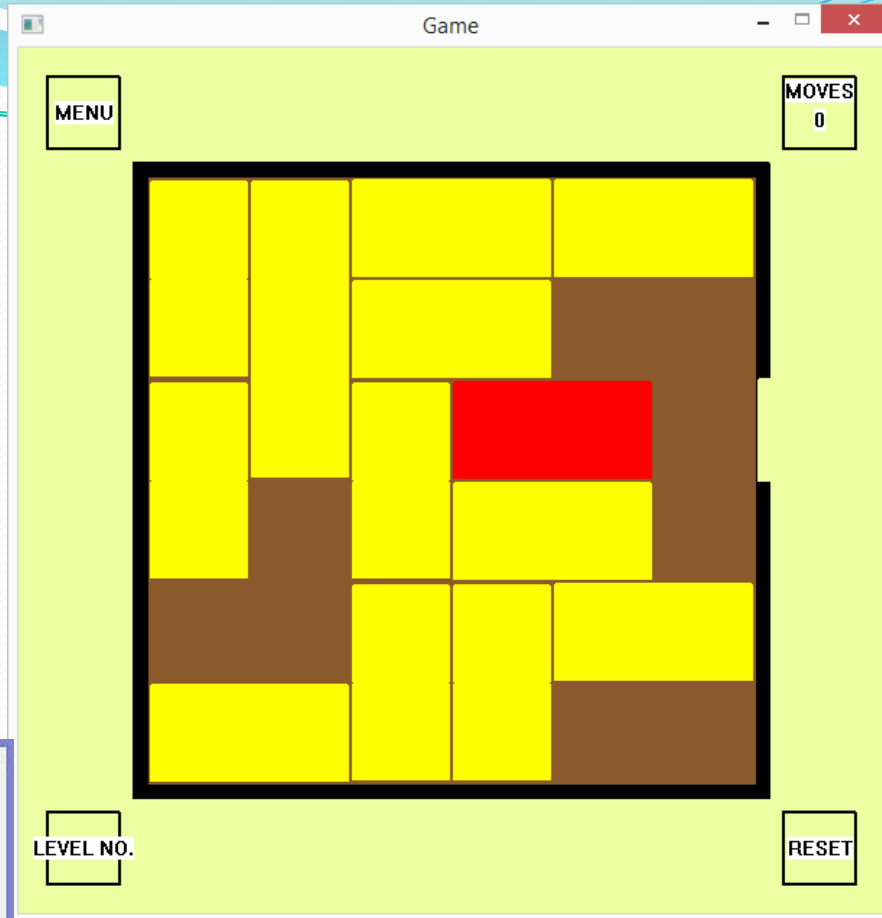
CHALLENGES

- Building the graphics of the game using the help of arrays that describe the arrangements of the blocks.
- Implementing restriction of movement of the blocks in the game.
- Implementing the high score of amount of time taken and the number of moves taken in a particular level.

We have declared a 6*6 integer array and a character array. Both of the arrays help to represent the blocks built. From the arrays, we have implemented the graphics in order to show the arrangements of the blocks. The selected block will move in the selected direction if in the array representation, the respective element will be a zero element.

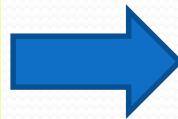
```
1t 0 0 0 1b 2b
1b 0 2l 2h 2r 0
0 0 2t 2l 2h 2r
0 0 2v 0 0 0
3l 3r 2b 0 0 2t
1l 1r 0 0 1t 2v
1t 0 0 0 1b 2b
1b 0 2l 2h 2r 0

0 0 2t 2l 2h 2r
0 0 2v 0 0 0
3l 3r 2b 0 0 2t
1l 1r 0 0 1t 2v
1t 0 0 0 1b 2b
1b 0 2l 2h 2r 0
A
b
C
1t 1l 1r 2t 1l 1r
1b 0 2t 2v 0 0
3l 3r 2v 2b 0 0
0 0 2b 1l 1r 2t
0 0 0 0 0 2v
1l 1r 0 0 0 2b
```



We have implemented a highscore function which when a level is solved in lesser number of steps then we store the number of steps (i.e. the high score in that level) in a file. Then another function prints those values in a high score window. If the level has not been solved yet then the window show “incomplete”.

Level 1	Level 2	Level 3	Level 4	Level 5
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Level 6	Level 7	Level 8	Level 9	Level 10
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Level 11	Level 12	Level 13	Level 14	Level 15
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Level 16	Level 17	Level 18	Level 19	Level 20
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Go Back				



Level 1	Level 2	Level 3	Level 4	Level 5
27	Incomplete	Incomplete	Incomplete	Incomplete
Level 6	Level 7	Level 8	Level 9	Level 10
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Level 11	Level 12	Level 13	Level 14	Level 15
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Level 16	Level 17	Level 18	Level 19	Level 20
Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
Go Back				

FUTURE WORK

- The levels which consists of arrangements of blocks which are randomly generated plus should be solvable at the same time.
- Auto-Unblock Me Solver which checks the solvability of a given arrangement of blocks and solves the level with the minimum number of moves. In this, the user inputs an arrangement of blocks and the program checks if the given arrangements of blocks are solvable or not and then solves the level in the minimum number of steps.



THANK YOU