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1

Group members

Group Members

Ming Lei (u7172618)

Principal Investigator of the project.
Build the basic structure of the game. Leading the group to finish all of the D and HD tasks.
Complete most part of the GUI part of the code independently.

Duo Liu (u7190717)

Build the basic structure of the game. Design the interface of the game. Implement a new strategy to accelerating system judgment so that task5, 6, 9 can pass in time. Complete the pdf file of initial structure and final presentation.

Xinyi Jiang (u6891814)

Build the basic structure of the game. Modify the GUI part of the code to make it more practical (add How to play, quit game button etc..). Host the meeting for the group as well as complete weekly journal(admin file).

2

Summary of work
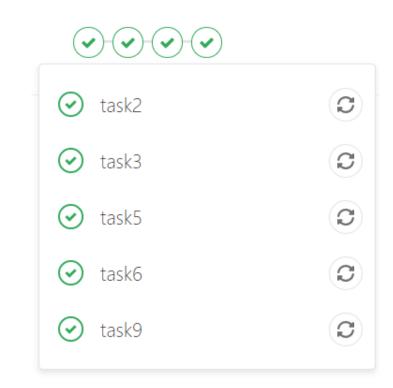
Fitgame

√ TASK 2

Duo Liu

√ TASK 3

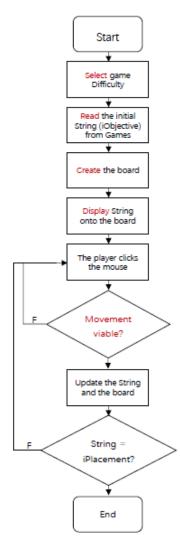Duo Liu

√ TASK 5

Duo Liu, Xinyi Jiang

√ TASK 6

Ming Lei, Xinyi Jiang

√ TASK 9

Ming Lei

task2

task3

task5

task6

task9

Flowchart:
Start → Select game Difficulty → Read the initial String (iObjective) from Games → Create the board → Display String onto the board → The player clicks the mouse → Movement viable? (F) → Update the String and the board → String = iPlacement? (F) → End

F	F	F	F	F	F	F	F	F	F
F	F	F	F	F	F	F	F	F	F
T	T	F	F	F	F	F	F	F	T
T	F	F	F	T	F	T	T	T	T
T	T	T	T	T	T	T	T	T	T

0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	1
1	0	0	0	1	0	1	1	1	1
1	1	1	1	1	1	1	1	1	1

```java
public int[][] toMatrix(){
    Map<String, int[][]> map = new HashMap<>();
    map.put("bN",new int[][] {{1,1,1,1},{1,0,0,0}});
    map.put("bE",new int[][] {{1,1},{0,1},{0,1},{0,1}});
    map.put("bS",new int[][] {{0,0,0,1},{1,1,1,1}});
    map.put("bW",new int[][] {{1,0},{1,0},{1,0},{1,1}});
    map.put("BN",new int[][] {{1,1,1,1},{0,1,0,1}});
    map.put("BE",new int[][] {{0,1},{1,1},{0,1},{1,1}});
    map.put("BS",new int[][] {{1,0,1,0},{1,1,1,1}});
    map.put("BW",new int[][] {{1,1},{1,0},{1,1},{1,0}});
    map.put("gN",new int[][] {{1,1,1,0},{0,1,0,0}});
    map.put("gE",new int[][] {{0,1,},{1,1},{0,1}});
```

Piece b

T	T	T	T
T	F	F	F
F	F	F	F
F	F	F	F

1	1	1	1
1	0	0	0

1	1
0	1
0	1
0	1

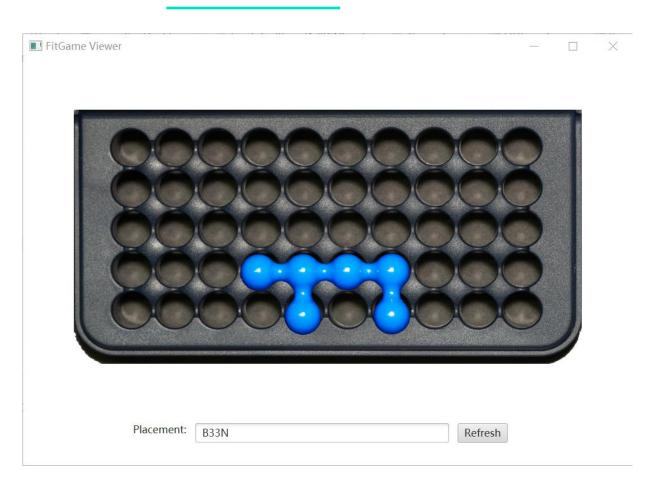| 0	0	0	1
1	1	1	1

1	0
1	0
1	0
1	1

Viewer

√ TASK 4

Ming Lei

Board

√ TASK 7

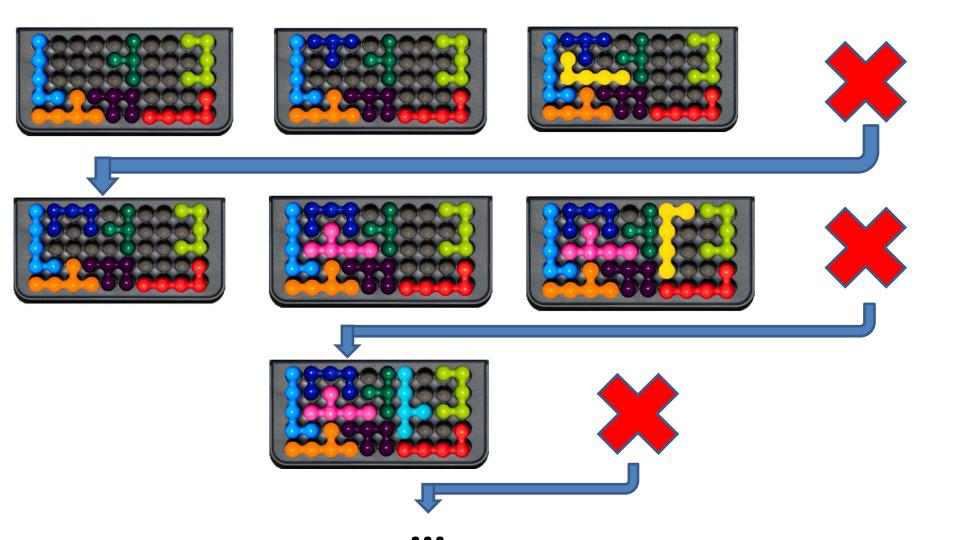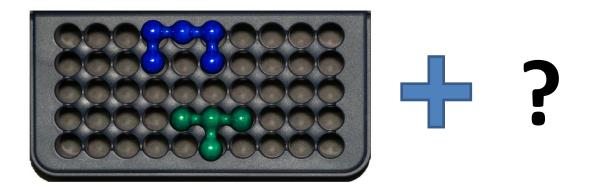Ming Lei, Xinyi Jiang

√ TASK 8

Ming Lei

√ TASK 10

Ming Lei, Duo Liu

√ TASK 11

Ming Lei

+ **?**

Unique solution?

Team activities

√ Principal Investigator

Ming Lei

√ Group journal(admin file)

Xinyi Jiang

√ Meeting host

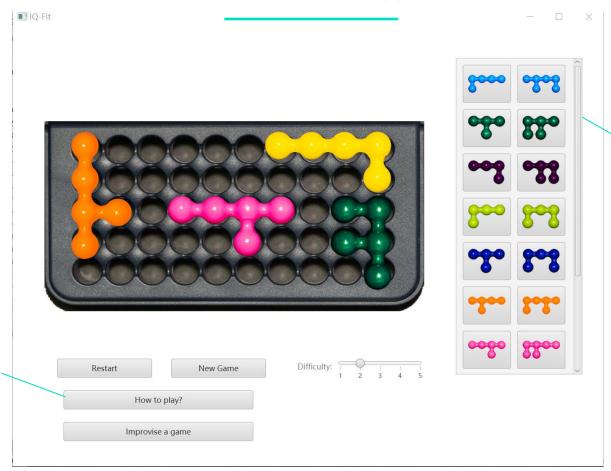Xinyi Jiang

√ Presentation preparation

Duo Liu, Xinyi Jiang

√ Add comments on code

Duo Liu, Ming Lei

3

Game presentation

Initial interface

Restart

New Game

How to play?

Improvise a game
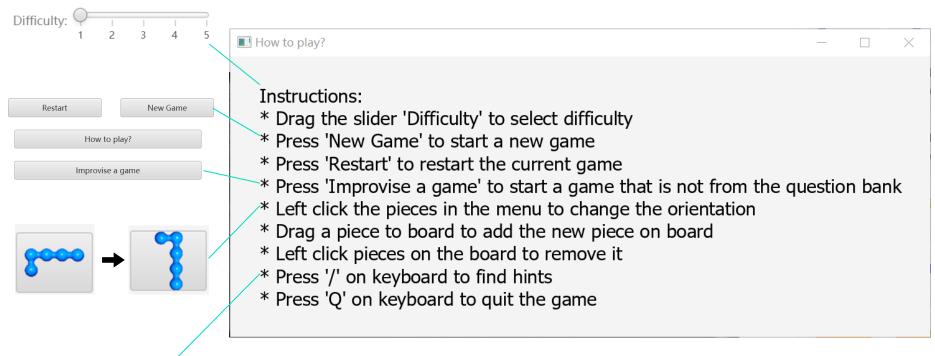
Difficulty: 1 2 3 4 5

Pieces menu

You can drag piece here to board to finish a step of placement. You can also click them to change their orientation.

Instructions

Click this button to find all message about how to play the game.

How to play

Task 8

Difficulty:

1	2	3	4	5

Restart

New Game

How to play?

Improvise a game

How to play?

Instructions:
* Drag the slider 'Difficulty' to select difficulty
* Press 'New Game' to start a new game
* Press 'Restart' to restart the current game
* Press 'Improvise a game' to start a game that is not from the question bank
* Left click the pieces in the menu to change the orientation
* Drag a piece to board to add the new piece on board
* Left click pieces on the board to remove it
* Press '/' on keyboard to find hints
* Press 'Q' on keyboard to quit the game

Hint !

Task 10

Finish the game

END