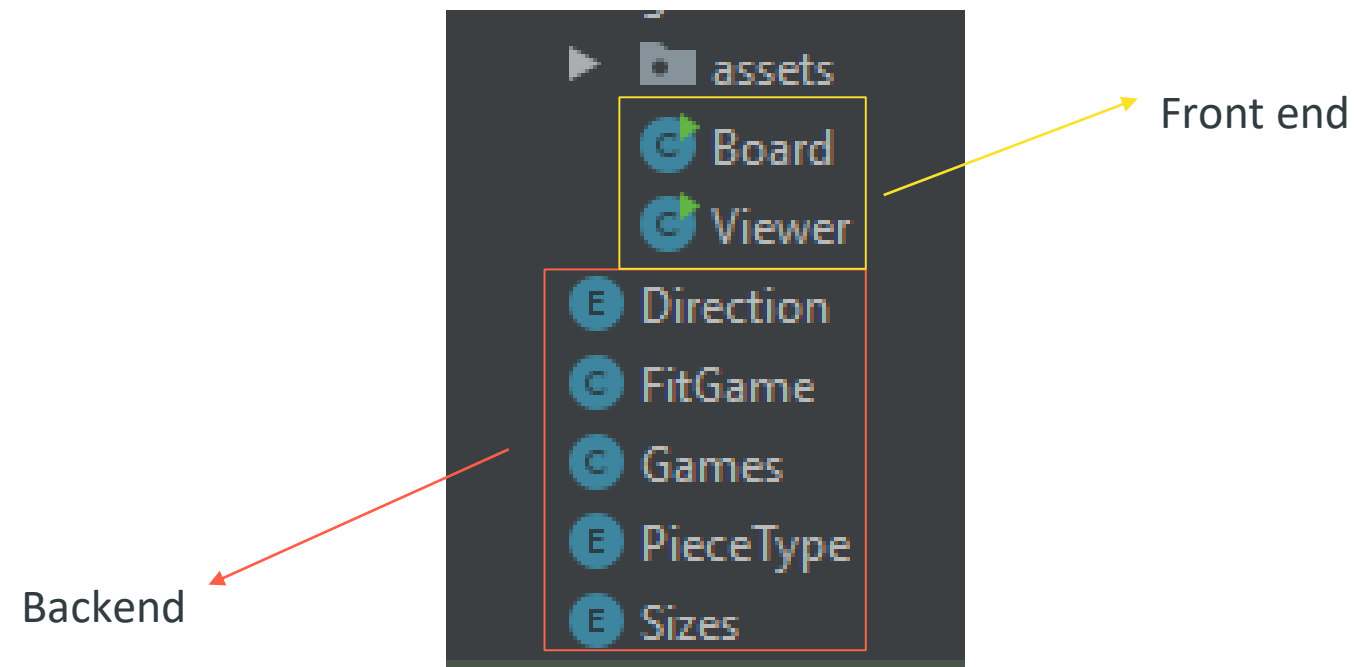


IQ-FIT

P E T E R Z H A O (U 7 1 2 2 4 4 7)

OVERVIEW



- The only additional classes that I have made are Direction, Sizes and PieceType
- All the additional classes contribute to the FitGame class where most of the backend code is
- The Sizes class contributes to Task 5.

GAME INTERPRETATION

```

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

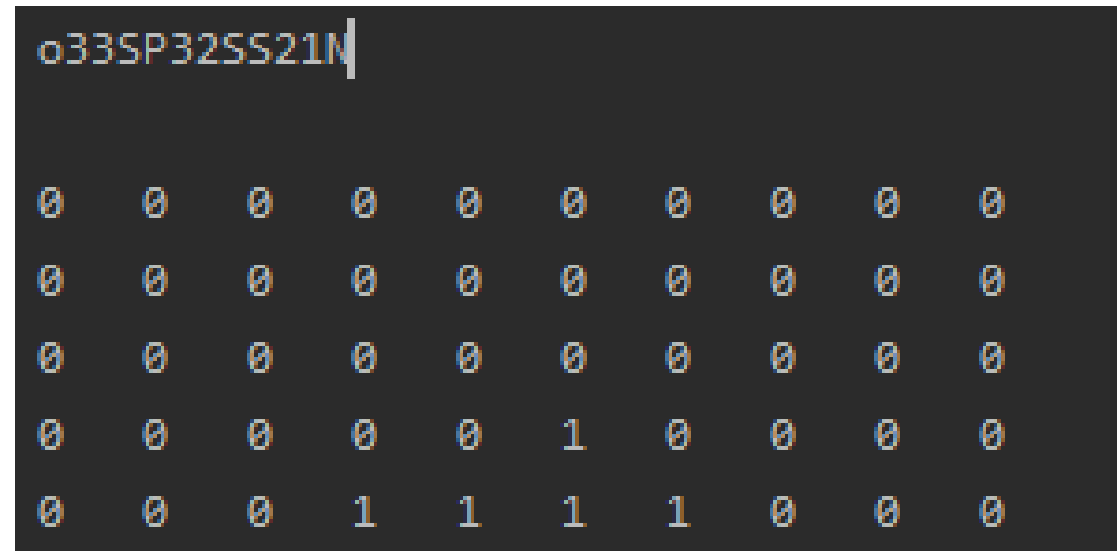
0  0  0  0  0  0  0  0  1  1
0  0  0  0  0  0  0  1  1  1
0  0  0  0  0  0  0  0  0  0
1  0  1  0  0  0  0  0  0  0
1  1  1  1  0  0  0  0  0  0
Placement : B03SG70S is valid!

```

- Positions on the board are represented as 1's and 0's
- Each piece is assigned a two values: height and width
- Each placement is 4 characters: Name of the piece, column, row and orientation

VALIDITY (ON BOARD)

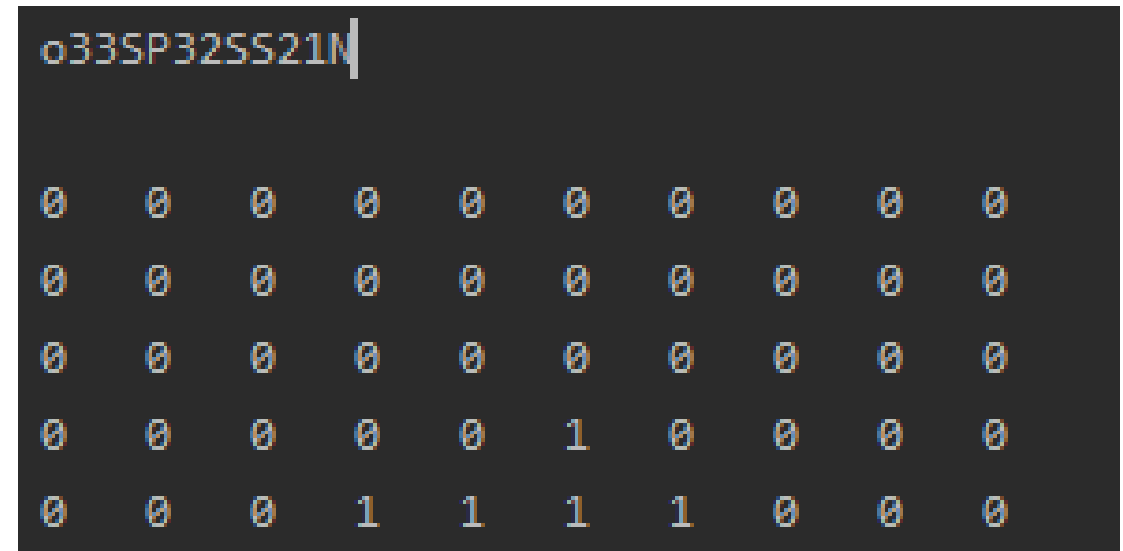
- All placement strings are placed on the board 1 by 1, if the string is not valid it is not placed
- If it is not placed, The next boardState is not printed and therefore, the string is invalid.



o33SP32SS21N									
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0
0	0	0	1	1	1	1	0	0	0

OBSTRUCTION

- If there is already a 1 occupying the space on the board, then it is obstructed and the string is deemed invalid

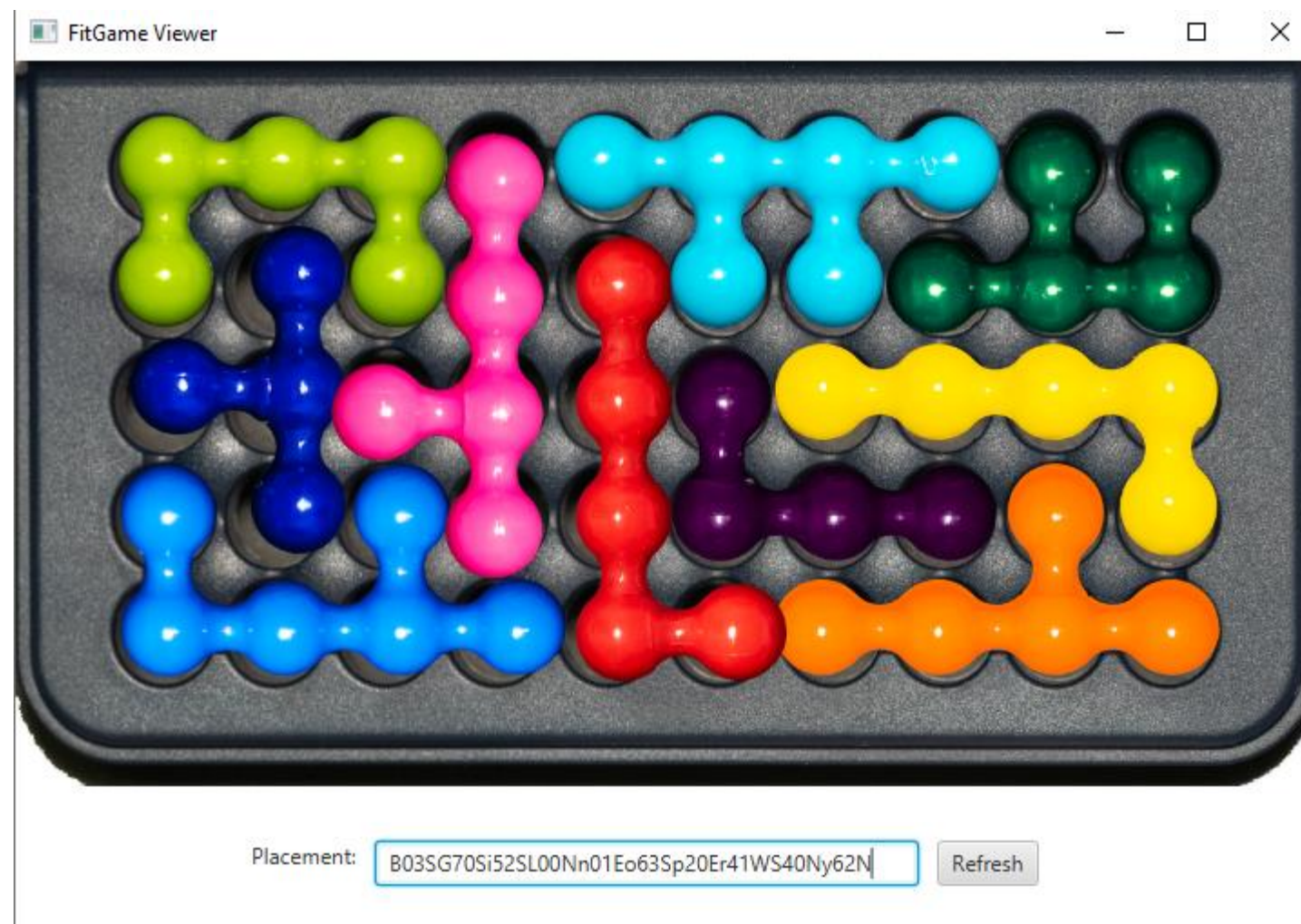


OBSTRUCTION

- This is done by checking the piece before placing it
- If the piece is at the coordinate is 0, then it is changed to 1, this happens in a for loop for all the coordinates the piece should cover

```
case 'E': {  
    for (int j = 0; j < sizes.w; j++) {  
        if (board[yPos + j][xPos + 1] == 0) {  
            board[yPos + j][xPos + 1] = 1;  
        } else return false;  
    }  
}
```

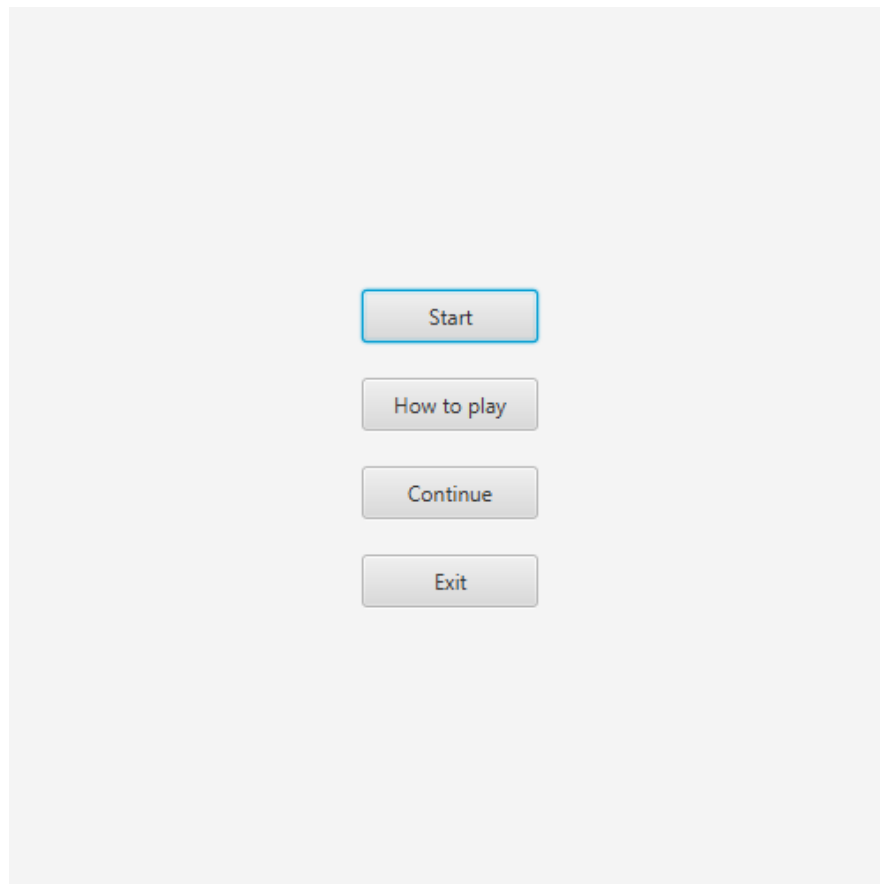

GAME



Pieces are placed in order from the start to finish, if there is an obstruction the piece is not placed. An nothing will happen.

The above string just happens to be a valid string.

GAME

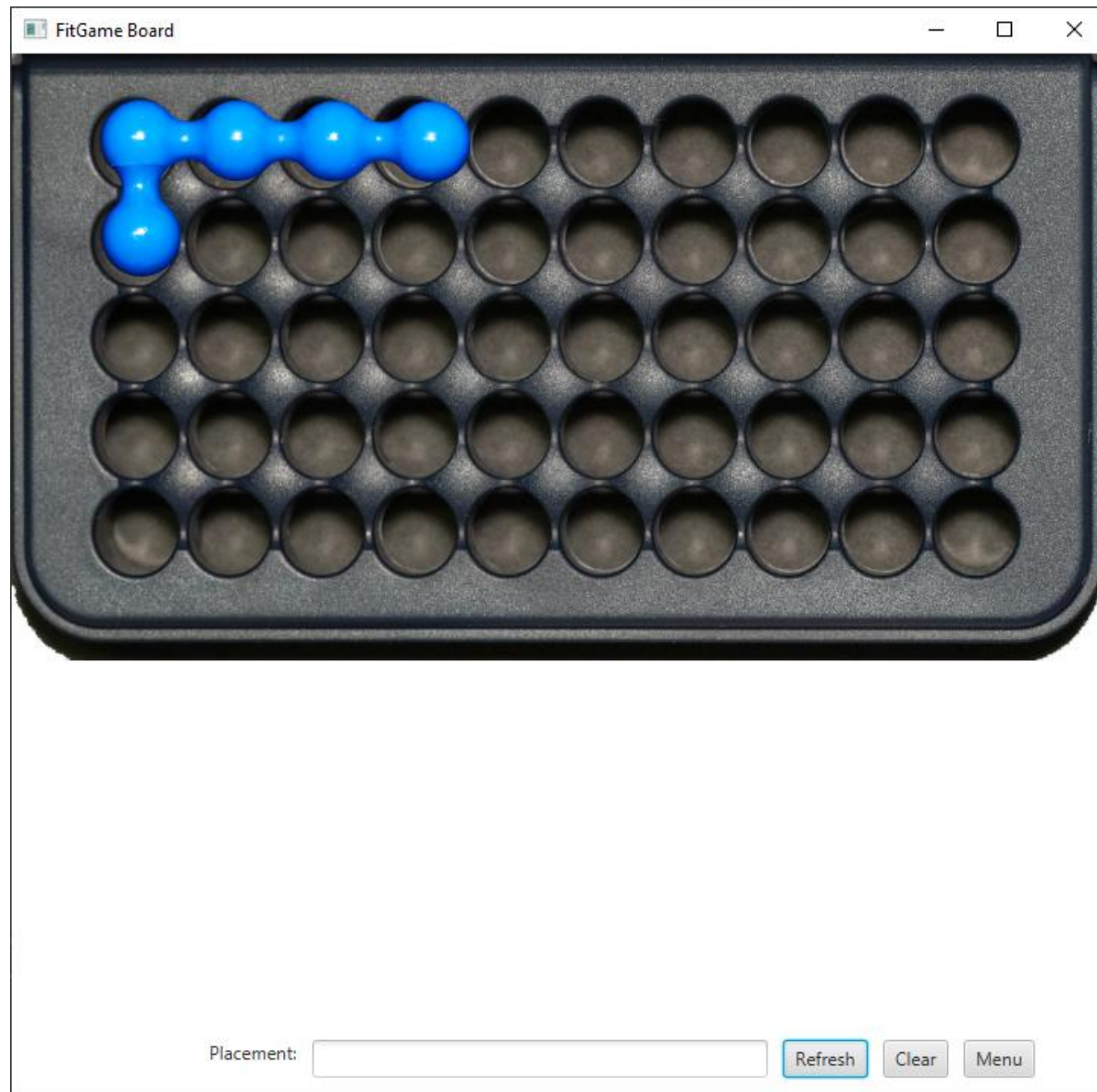


The Game has 4 buttons when you first launch it

1. Start
2. How to Play
3. Continue
4. Exit

With Continue and Start having the same functions

GAME



Inside the Game there are four buttons.
Return to Menu, Clear and Refresh.

Refresh will place another piece

Clear will clear the board

Menu will return you back to the menu.

Continue will continue your previous game.

If you try to enter an invalid piece, the
game will not accept that piece and nothing
will appear on the board.