2017-1 OOP QUIZ_3. IMAGE PUZZLE GAME

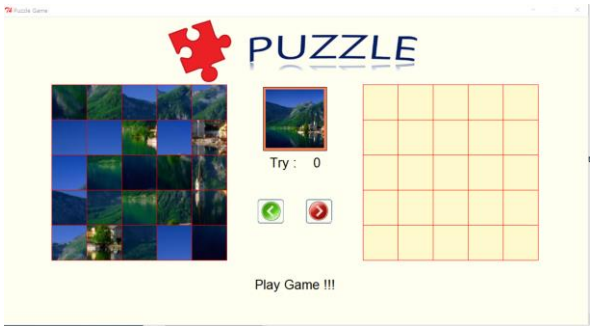
[Submit Information]

Submit Time: Until 18:30

Change your program name as "quiz3_class1_16001_honggildong.py" format

Send your final program to: khosook@kaist.ac.kr (only python file)

★ This program is an image puzzle game (like as jigsaw puzzle). The goal of the game is move all mixed image pieces from *source_board* to the *dest_board*.



(When divide number is 5)

At first, one original image file is saved in **Images** folder named **image360.jpg.**


(width and height size is 360 pixel)

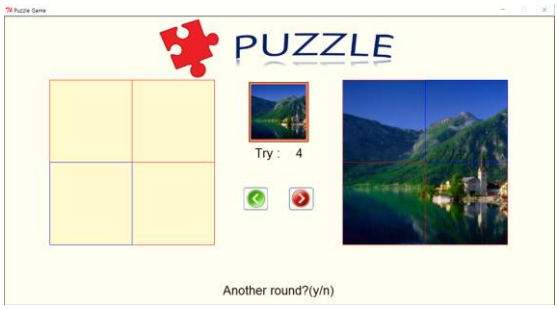
According to a user's input(n), the program will make n x n image pieces and saved that in the **Temp** folder. Those image files are used in the game. For example, when the user enters 2,

```
[evaluate puzzle07_complete.py]
Input divide number: (2~6) 2
```

Four image files (img00, img01, img10, img11.jpg) are generated under the Temp folder.


(each image size is 180 x 180)

★ The starting and the final screen of the game like as follow,



[start state] [final state]

All image pieces are mixed on the left side All image pieces are matched on the right side.

★ **The game follows several steps:**

[1] Receive the user's input (divide piece number).

If 2 is entered, 2x2 = 4 pieces are made, if 5 is entered, the program makes 5X5 = 25 pieces (img00.jpg~img44.jpg). User can enter 2~6 integer number.

```
[evaluate puzzle07_complete.py]
Input divide number: (2~6) 2
```

[2] Show initial game state:

First message is "Play Game !!!" and try is start from 0.

All the image pieces are mixed on the source_board and the dest_board is empty.

[3] Move image piece using forward  **and backward**  **button**. If the user pushes any button before he/she selects two frames (one is image, the other is empty), the program shows the message:

Select Source and Destination frame.

[4] At first, the user selects one piece in the source_board (left side), the piece's frame changed from **red** to **blue**. And then he/she selects one empty frame of the dest_board (right side) it's color also changed as blue. After two frames are selected, user can press forward button  and selected piece is moved from a source_board to a dest_board.

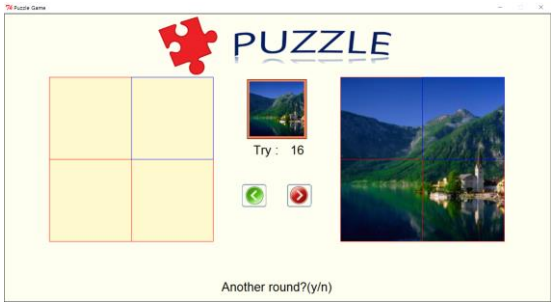
Whenever a piece image is moved, **score** is increased by 1.

(selected frame color is blue)

Like as the forward button, for the backward button  is only performed, when empty frame of source_board(left side) and one image of dest_board(right side) frame are selected. Otherwise, the program shows the message:

Start frame must have a piece and End frame must be empty.

[5] All pieces are moved and images are located at correct positions, the message is shown **"Another round? (y/n)"**



[6] If user inputs 'y', table is cleared and the stage is go to step [2], else 'n', the game finishes.

★ The names of each object included in a table object are like as follows.