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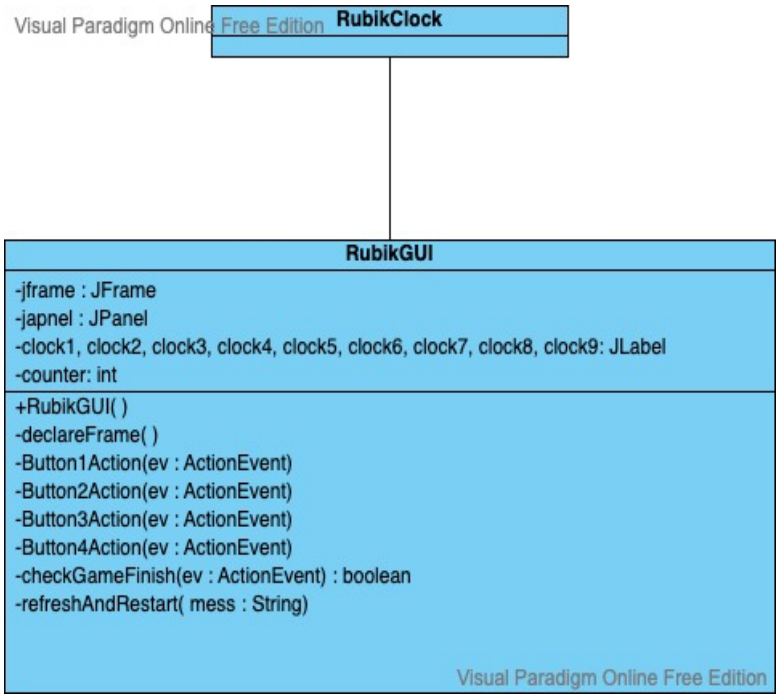
Rubic clock

Create a game, which implements the Rubik clock. In this game there are 9 clocks. Each clock can show a time between 1 and 12 (hour only). Clocks are placed in a 3x3 grid, and initially they set randomly. Each four clocks on a corner has a button placed between them, so we have four buttons in total. Pressing a button increase the hour on the four adjacent clocks by one. The player wins, if all the clocks show 12.

Implement the game, and let the player restart it. The game should recognize if it is ended, and it has to show in a message box how much steps did it take to solve the game. After this, a new game should be started automatically.

Class Diagram

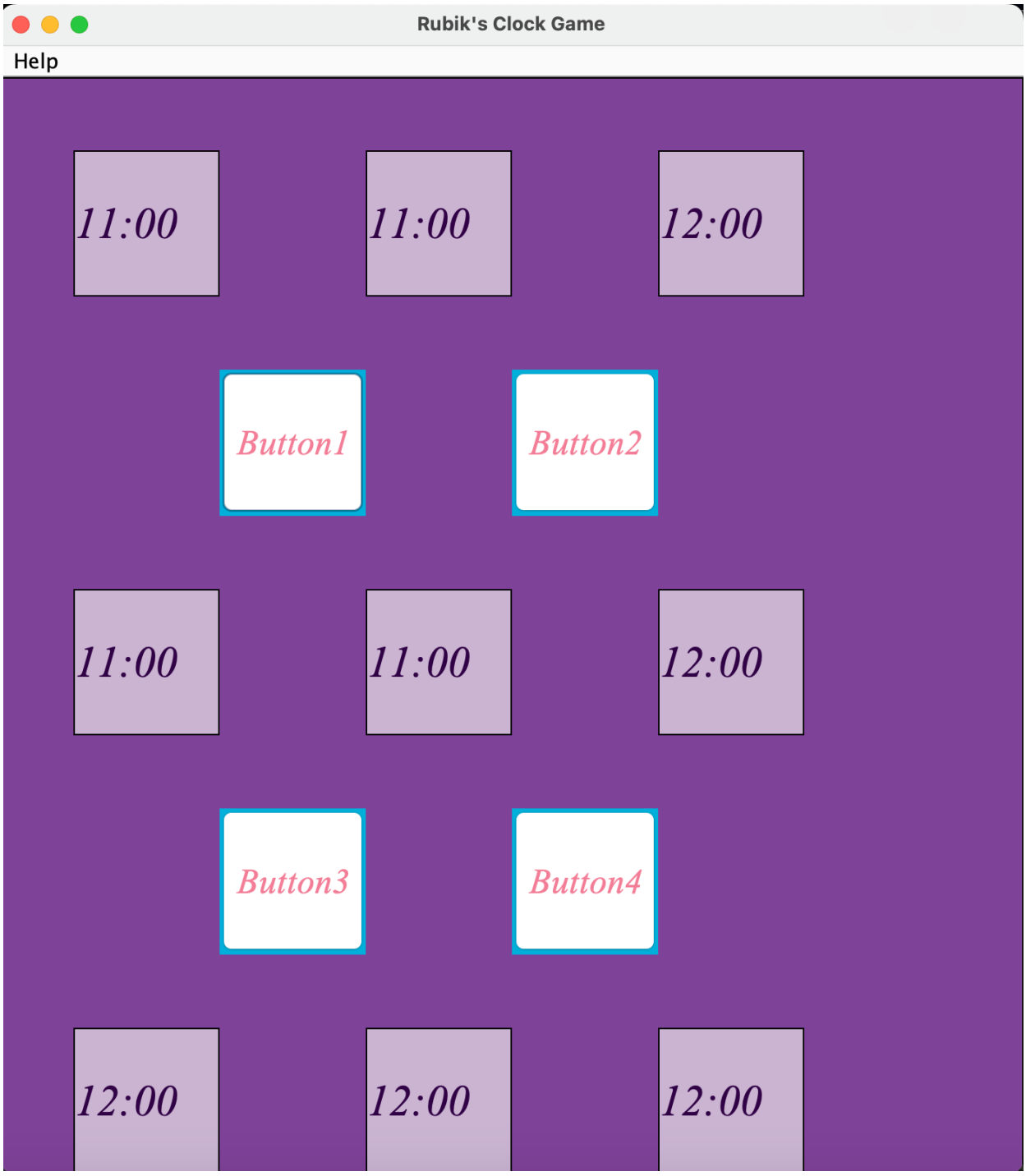


Method description:

+RubikGUI() : calls the declareFrame function
-declareFrame() : it sets the whole frame of the game and randomizes the clock timing when initialized
-Button1Action(ev: ActionEvent) : Sets adjacent clocks with +1 hours for button1
-Button2Action(ev: ActionEvent) : Sets adjacent clocks with +1 hours for button2
-Button3Action(ev: ActionEvent) : Sets adjacent clocks with +1 hours for button3
-Button4Action(ev: ActionEvent) : Sets adjacent clocks with +1 hours for button4
-checkGameFinish(ev: ActionEvent) : checks if all the clocks are set to 12:00 and return a Boolean value

Testing

1. We set label to 12:00 hour, to win in one move and check if it gives the right result



2. We play the game and win with the normal of steps taken.