Lab 6 Assignment

In this assignment, you need to implement the tic-tac-toe game with GUI in java.

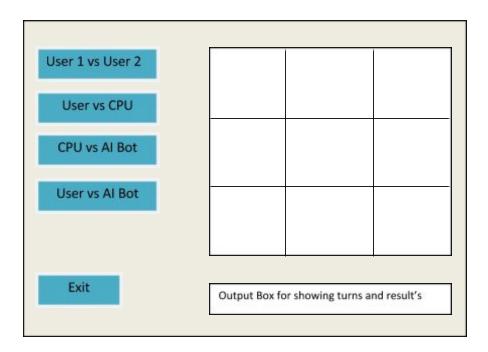
- The game should have a 3 x 3 grid, some buttons and textual output in the frame.
- Remember, that you have already implemented the logic for the game in the first assignment and you should reuse that in this as well.
- The motive of this assignment is to get you familiarized with GUI in java.
- Having said that, you should avoid the design mistakes that you did in 1st assignment.
- You should ideally make a single Tic_Tac_Toe game class and make an inner class for the grid.

Specific Requirements:

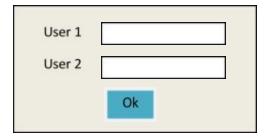
1. The game should have a start screen with the name of the game, a button with the text "Start Game" on it and a button with text "Exit" that closes the window and stops the execution of the program.



2. Once the user presses "Start Game" button, you should get the user to a new screen in the same Frame as:



- 3. The 3 x 3 grid should be clickable. You can safely assume that there is 50/50 chance that any user (CPU/AI Bot) can start first and the first user starts with X.
- 4. If the user presses 1st, 2nd or 4th button, a pop up box should appear asking for user's name. Here, I am showing for 1st button, similarly a box should appear asking for single user's name on pressing 2nd and 4th button.



5. When one of the 4 options is getting executed, the change on that button should be clearly visible.

- 6. You should keep checks in the 4th point when a user tries to input empty string. You should not accept it and should display a message in the pop-up box itself.
- 7. For the 3rd option, CPU vs AI Bot, the output on the grid should be delayed by 1 second.
- 8. On every turn, output in the output box should be like:
 - <User1>'s turn or <User2>'s turn or CPU's turn or Al Bot's turn according to
 whoever's turn it is.
- 9. The result should be displayed in the output box as:
 - <User1> wins or <User2> wins or CPU wins or Al Bot wins

It's a Tie!

- 10. After someone wins a game, the corresponding row, column or diagonal X's or O's in the grid should change color or show some effect.
- 11. After the end of one game, you can either use another pop up box for starting a new game or start it from the left menu itself.
- 12. The "Exit" button should close the window and stop the program.

The layout I have given here is just for reference and can be different for you. Be creative keeping in mind all the functionalities given above.