ASSIGNMENT 7

Let's play Tic-Tac-Toe

Due Date: Friday, 18th Nov., 11:59 PM PDT

Create a simple Tic-Tac-Toe game application using JavaFX.
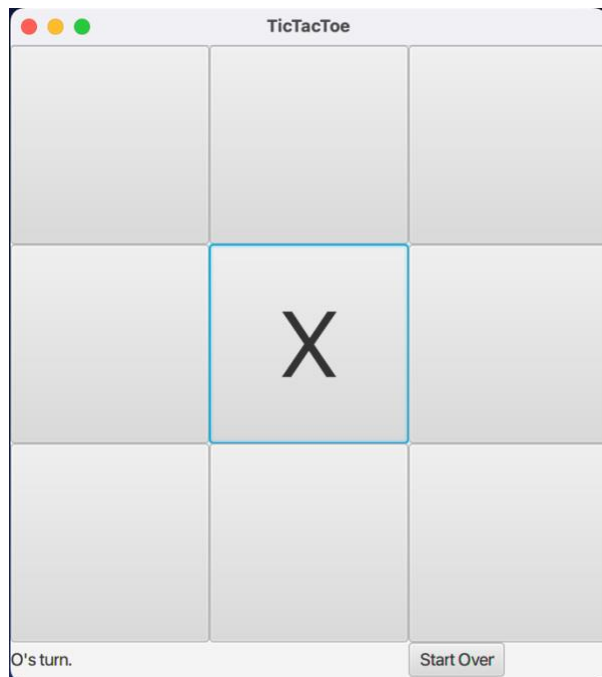
<u>**Requirements**</u>:

1. Game interface and elements:
    a. The game interface is a grid of 3 by 3 squares
    b. A window title 'TicTacToe'
    c. Show messages of game status at the bottom left of the game window
    d. A 'Start Over' button at the bottom right of the game window

2. Game rules:
    a. X and O represent two players.
    b. The first player(X) starts with marking a cross on one of the nine squares, the second player(O) then can mark an O on any one of the empty squares. The two players mark on the grid as such in turns.
    c. Any player to get 3 of their marks in a row (up, down, across, or diagonally) first is the winner.
    d. If all 9 squares are full without a winner, the game is over and results in a tie.
    e. Any time when the 'Start Over' button is clicked, all marks on the grid are cleared, and the game starts from the initial window.

3. The bottom message bar should indicate the following:
    a. Whether it's X's turn or O's turn.
    b. Which player has won after a player wins.
    c. Indicates a tie when all 9 squares are full and no player wins.
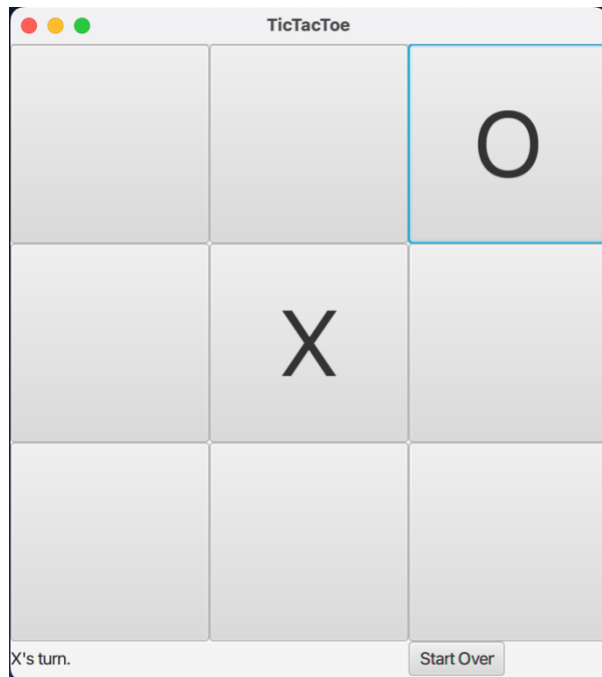
Sample interface:

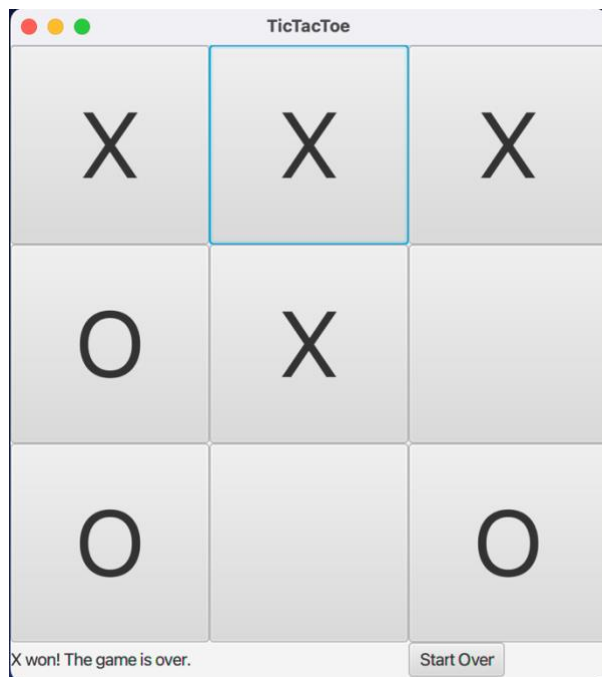The initial window (after running the program):

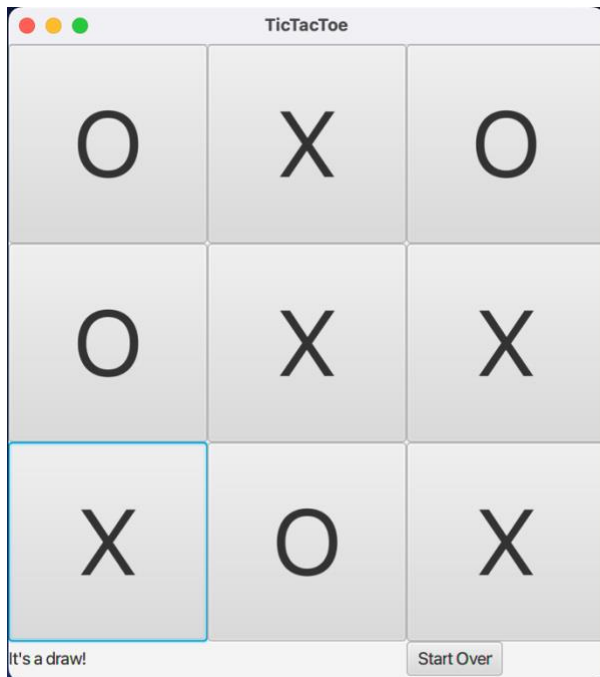After the first player X's turn:

After the second player O's turn:

When a player wins:

When it's a tie:

Note:

1. Give comments to increase code readability.

2. Mention the sources used to complete the assignment.

3. Save the file as **LastnameFirstnameA7**.java.

4. Submit **.java file** only.

If you're using a MacBook with M1 chip and the JavaFX keeps crashing, try the follows:

- Download and install an IntelliJ version compatible with M1 chip and using OpenJDK 18.0.1.
- If it still crashes, try download and use Azul java version.
- Select the proper JDK or Java version when creating a new JavaFX project in IntelliJ IDE.