

COM S/SE 319 : Construction of User Interfaces

Spring 2020

Homework 6

[Total Points: 30]

Assignment Due: Sunday, March 15, 2020, 11:59 PM

Implement a **Turn Based human vs human tic-tac-toe game** with suitable **GUI**. Typically, **Tic-tac-toe** (also known as noughts and crosses or **Xs** and **Os**) is a paper-and-pencil game for two players, **X** and **O**, who take turns marking the spaces in a **3×3 grid**. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row wins the game. The given example of the game is won by the first player, **X** which has been illustrated in the below figure 1 : (More about Tic-tac-toe: <https://en.wikipedia.org/wiki/Tic-tac-toe>)



Figure 1: Tic-tac-toe Game

You have to implement this task using **Java** code and **JavaFX** GUI components.

Check list:

1. Use the provided images (**included in the zip file**) for marking **X** and **O**. **[2 points]**
2. Show which player's turn while playing the game. **[3 points]**
3. Click on the blank cell to mark **X** or **O** (unmarked cell should be checked and marked cell cannot be marked again). **[5 points]**
4. When one player wins, stop the game and show "Congratulations, **X** win the game" or "Congratulations, **O** win the game" in your designed GUI. **[5 points]**
5. When all cells are filled in and no one wins, stop the game and show "**Draw**". **[5 points]**
6. When the game is over, show the option to restart a new game. **[5 points]**

Please find the attached HW 6 zip files **HW6-Files.zip** on Canvas.

Submit requirement [5 points]

Submit via Canvas a **compressed file (.zip)** [rename it with your LAST NAME] containing the following folders and files:

- **src:** Attaching your project (which includes the source code) of your implementation
- **README** file explaining how to compile and run your program
- **Report** (.docx or .pdf) file describing your solution approach and **screenshots** of every required output.