**Tic Tac Toe**

Set up instructions:

**Create New Project:**

 Open a new project in Netbeans, call it tictactoe.

Go into design mode, create a tic tac toe board that looks like the following:



Include:

* A 3 x 3 grid of buttons that are blank
* Text boxes for: # of x wins, # of o wins, and winner declared each round
* Clear board button
* New game button (this button resets the # of wins textboxes).

**Create the code for the project:**

Firstly, declare your public variables in the public class:

* A variable for turns (to differentiate between x and o)
* Variable for wins
* Variable for ties
* Variable for each button, and each state(ex. But1 needs a variable for both x and o).
* Variable for xwin
* Variable for ywin

Secondly, code each button so that it shows either x or o:

* Check turn variable to see if button click will equal x or o (hint: use modulus)
* Set text on button based on turn variable
* Set a value to the buttonstate variable from above(bullet four)
* Add one to the turn(to switch between x and o)
* Perform a check event to see if someone has won.

Thirdly, create a method (private void) that checks for win:

* If statements to check that player has won the game. This needs to be done for every row, column and diagonal, for both x and o.
* Set xwin or owin to true
* If statement that 10 turns equals tie (or cat got the game if you prefer)

Fourthly, on win method for both x and o (2 separate functions):

* Detect a win
* Add a win to the wins textbox
* Reset the win variable for the next game
* Change turn back to 1

Fifthly, code the clear game button:

* Change turn variable to 1
* Change all button text to ""
* Change all button variables (x1, o1 etc.) to 0

Sixthly, code the new game button:

* Change the turn variable to 1
* Change all button text to ""
* Change all button variables (x1, o1 etc.) to 0
* Change the xwin textbox to "0"
* Change the ywin textbox to "0"
* Change the ties textbox to "0"
* Set the wins x variable to 0
* Set the wins y variable to 0