Objective

The objective of this project is to get familiarized with the basic programming language before you start the main network programming in the subsequent projects. The programming environment for this course will be Microsoft Visual Studio .Net. You may use C# or VB.

In this project you will write a simple Tick-Tack-Toe game program. Tick-Tack-Toe is a simple game but still requires basic Windows interface, arrays, loops, if-then-else, etc., which are useful in the future programming assignments. In the later project, this game will be turned into an on-line client/server game.

Given Problem

Write an off-line Tick-Tack-Toe (TTT) game. The game is played against the computer (your algorithm).

Program Requirements

1. You must use a graphical user interface (GUI) with mouse click. An example design is shown below.

2. If the player presses the same button more than once, it should be ignored.
3. The first move can be made by either user or computer.
4. The game should be monitored by the program and win or draw should be declared as soon as it is determined.
5. You should accommodate a button that allows start of a new game by clearing the board.
6. If your algorithm is smart enough, the computer should never lose the game. The best result of TTT is always a draw.

For designing the user interface, you need nine buttons. However, creating independent nine buttons such as button1, button2, ...etc., is not an efficient way of programming because you then have to repeat the same code segments again and again. A more efficient way is to use an array of objects or controls, so that you can write a single subroutine that handles all of the button click events.

**Project Check-Off**

You must check off your program by showing it to your instructor.

**Report**

Not required.