BF550: Fall 2020
Problem Set 3 is due by 12 pm on Tuesday, October 6

Reading Assignment
Using NumPy documentation or any other source familiarize yourself with `ndarrays`.

Submission Instructions:
Follow the same procedure as before. Don't forget to include your last name in the name of the file. Both *.py and Python notebook are OK.

Problem 1
Write a program that plays Tic-tac-toe with a user. Each round, the game prints out the state of the board, asks the user where they would like to place their mark, and implements this decision. The program then places its own mark on a randomly chosen available position. Once one of the players won, the program declares the result and asks if the user would like to continue. The first player is selected at random.

The description of the game can be found at `https://en.wikipedia.org/wiki/Tic-tac-toe`.

As you design your program, think about what kind of program structure would make it easy to develop extensions such as a more sophisticated AI, an ability to play with another program, or play the game on boards of arbitrary rectangular shape. Also, think about objects and classes that would make sense to develop and the three pillars of OOP. However, don't let this thinking detract you from the more important task of having a working program that plays regular Tic-tac-toe with a user.