**Introduction**

Welcome to Lab 06 Python lab.

This week, we'll have one lab, which is 9/30 11.59pm . You should submit this lab as a single .py file.   
  
To get started, open IDLE and then create a New File via the File menu. Save this file as Lab06\_TtaCtoe.py.

**Assignment**

After years of planning, you’re finally ready to host the Tic-Tac-Toe world championships. Everything had been going great until you made a terrible discovery: the judges, who determine which player has won the game, have been taking bribes! There’s not enough time to train new ones, so you opt for a backup plan: you’ll create a piece of code that analyzes the board and tells the players if anyone makes a row. A Tic-Tac-Toe board looks like the following. Every square can be empty, filled with an X, or filled with an O (capital letter ‘o’). Player X has won if they have three X’s in a row. Player O wins if they can do the same with the O’s. A row can be horizontal, vertical, or diagonal. Can you write the new judging code and salvage the competition?

For our lab, we just make a similar situation.

**Input**

The input consists of three lines each with 3 characters. Each line represents a horizontal row on the board. Each character in a line represents a column. This means you have 3 rows and 3 columns, just like a normal Tic-Tac-Toe board. Each square in the board contains either an X, O (that’s a capital letter, not a number), or E. X and O represent markings made by the players while E represents an empty square.

**Output**

If player X makes a row, you should print out the character X and clarify what kind of row? (Horizontal, vertical, or diagonal).

If player O makes a row, you should print out the character O, and clarify what kind of row? (Horizontal, vertical, or diagonal).

If both make succeed in placing their marks in a horizontal, vertical, or diagonal row, print out the result one by one.

If neither player has won, you should print out “THIS IS TIE”

**Lab I/O Format**

For lab assignments this semester, a specific **Lab Input/Output Format** is required. This format is described below:

* When prompting for input, use be descriptive in how you would like to captive the user input. For example, Please Enter “X” or “O” in this format.

**Example Execution 1:**

ROW0>XEO

ROW1>EXO

ROW2>EOX

X IS GOOD IN DIAGONAL

**Example Execution 2:**

ROW0>OXO

ROW1>OXX

ROW2>XOX

THIS IS TIE

**Example Execution 3:**

ROW0>XXE

ROW1>EXX

ROW2>OOO

O IS GOOD IN HORIZONTAL