Due: October 13 Saturday, 11:59pm (No late turn-in accepted)
Max points allocated: 50 points

Create a Tic-Tac-Toe game program as follows:

`TicTacToe` game requirements:

- `Homework3` is the name of the `main` class. Use the OO design principle as much as possible.
- This is a human vs. a computer game; the human player enters O and the computer enters X. The human plays first.
  - The player enters two integers, say x and y, to choose a cell in the board. x indicates the row index (0, 1, 2) and y indicates the column index (0, 1, 2) of the board.
    - **Input validation:** Prompt the player again if invalid data is entered. Invalid data means either out of valid index or the cell which is already occupied.
    - **input format**: rowIndex *blank* columnIndex (e.g., 0 1)
  - The computer picks an unoccupied cell.
    - Use of AI (Artificial Intelligence) is not required, but optional. The computer may pick up a location randomly.
- Then, the program displays the game board and determines the status of the game (**win**, **draw**, or **continue**)
- The game board must be displayed as shown in the sample run (using + - | characters). Each cell has three spaces and the mark (O or X) is placed in the middle.

Here is a sample run for TicTacToe:

Initial Screen:

```
+---+---+---+
|   |   |   |
+---+---+---+
|   |   |   |
+---+---+---+
|   |   |   |
+---+---+---+
Your turn - where (row, col)? 0 0 <enter>

+---+---+---+
| O |   |   |
+---+---+---+
|   | X |   |
+---+---+---+
|   |   |   |
+---+---+---+
```

The computer picks (1 1) using either AI or randomly.

```
Your turn - where (row, col)? 1 0 <enter>
```

```
+---+---+---+
| O |   |   |
+---+---+---+
| O | X |   |
+---+---+---+
|   |   |   |
+---+---+---+
```

.... (after several runs)

```
+---+---+---+
| O |   | X |
+---+---+---+
| O | X | O |
+---+---+---+
| O |   | X |
+---+---+---+
```

You WON!!! ***(The program automatically determines)***

Note (deductions if violated):

- The user interface must be exactly like the sample run: the format of the game board and the way the user enters row/column indices.
- You may use Tic-Tac-Toe program available in the textbook.
    - If you adopt codes from the textbook or other sources, you must specify the detailed info about the source in the source program as comments.