

AP COMPUTER SCIENCE A – HOMEWORK #12

The goal of this assignment is to write a program `TicTacToe.java` that plays the game “tic-tac-toe”. You will probably want to use class `ConsoleInput`, but beyond that, it is left up to you whether or not you want to use (or code up) any other helper classes.

Your program should:

- 1)** On start-up, print a “splash”, an empty grid, and then prompt player X for his move. For example:

```
T i c T a c T o e
```

```

1      |2      |3
  |    |    |
  |    |    |
-----+-----+-----
4      |5      |6
  |    |    |
  |    |    |
-----+-----+-----
7      |8      |9
  |    |    |
  |    |    |

```

Enter 1 through 9 inclusive.

Player X = ?

- 2)** Accept the user input for player X’s move, and then print the grid showing the move. For example:

Player X = ? **5**

```

1      |2      |3
  |    |    |
  |    |    |
-----+-----+-----
4      |5      |6
  |    |X    |
  |    |    |
-----+-----+-----
7      |8      |9
  |    |    |
  |    |    |

```

where the bold print is the user input. You will need to verify that the user input:

- a)** can be parsed into a valid `int`,
- b)** is between 1 and 9 (inclusive), and
- c)** corresponds to an empty cell.

If not, the user should be re-prompted.

- 3)** Prompt player O for his move, and then print the grid. For example:

Player O = ? **6**

```

1      |2      |3
  |    |    |
  |    |    |
-----+-----+-----
4      |5      |6
  |    |X    |O
  |    |    |
-----+-----+-----
7      |8      |9
  |    |    |
  |    |    |

```

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- 4) Continue prompting players x and o in turn until the game is over.
- 5) When the game is over, the program should print one of the following three messages, and then terminate:

Player X wins!
Player O wins!
Cat's game!

Once you are satisfied that your program is working correctly, submit all of your program's *.java files electronically.