

Prolog Assignment 2 – X's and O's representation and rule manipulation

Due Date: November 25th

Value: 10 marks

Submission instructions: Submit your code file called SXXXXXXXX_Assignment_2.pl to the Moodle assignment provided together with a 5 minute video explanation of your solution.

X	O	X

Represent an X's and O's (Tic-tac toe) board as a set of Prolog Facts or using a List representation and using your representation write rules to carry out the following. This could be represented using the grid system (square(Row,Col,Value) facts) that we looked at in Week 3.

Determine if the Board representation is full of valid symbols (x and o).

Generate the next possible move of the current Board.

Determine if a Board is a winning board or a drawn board.

Generate the optimal next move. Heuristic rules for X's and O's is the middle square has a score of 4, The corner squares have a score of 2. All other squares have a score of 1. Any square that blocks an opponent's winning situation has a value of 5.