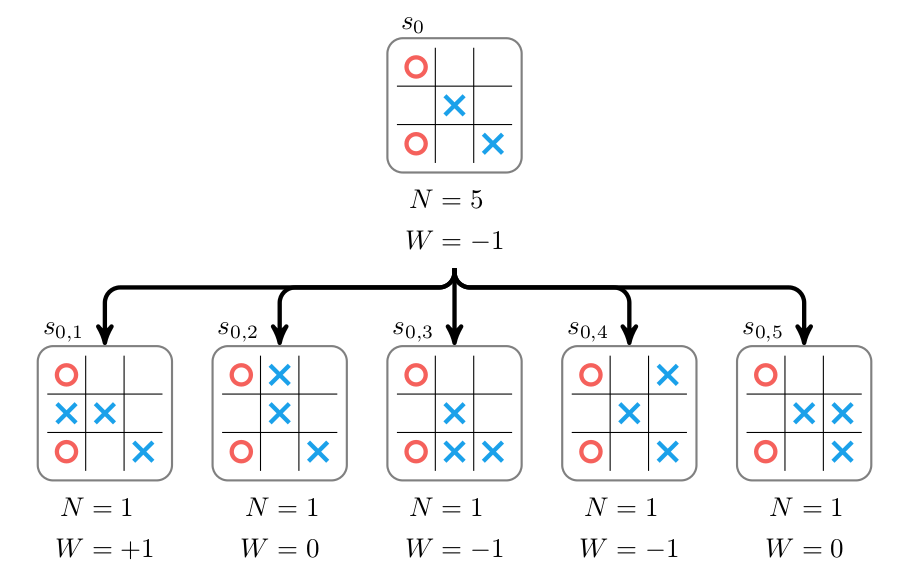
DAC619 AI for Games

# Monte Carlo Tree Search Lab

1. You are given a partial game tree for Tic-Tac-Toe and and values for a number of previous iterations are provided in that tree. The game state is close to a win for , Using the formula for UCT, below,  
     
   and given a value of , calculate the value for all nodes for this iteration, select the node with the highest value and then expand, play through with random moves and then backpropagate when a leaf node (win or lose state) is reached by updating the , and values appropriately.  
   If you have time, repeat this for another iteration.
2. Read the provided white paper describing Google’s AlphaGo algorithm.