CSCI B 551 Elements of AI

Assignment 1

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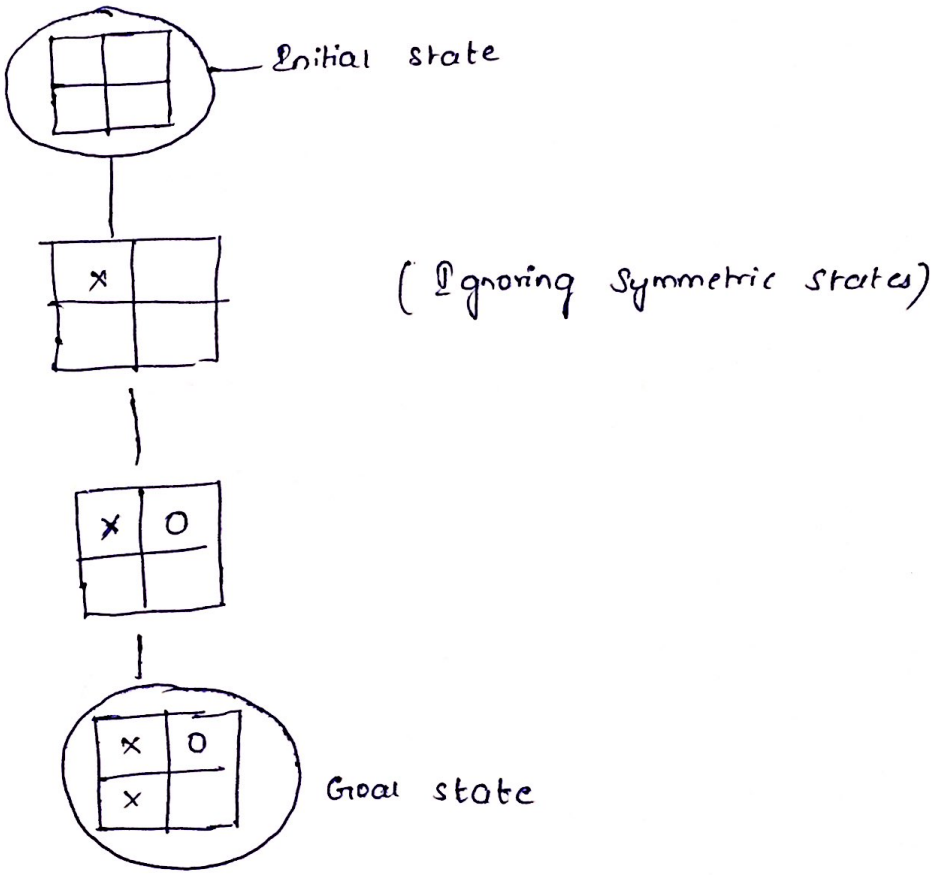
1) Considering X as the first move allowed, following is the state graph of tic-tac-toe game for a 2x2 board



2) for the given board

$h(N) = 4 + 6 + 3 + 1 + 0 + 2 + 0 + 0 = 16$

According to h(N) the cost of moving 5 to its position is 4. But 5 can be moved to original position.

similarly for some other tiles the original cost might be less than heuristic cost.

Therefore the total cost will definitely be less than the permutation inversion heuristic cost.

since it is an overestimate, we can say that permutation inversion is not admissible.