AI For Games

## Lab 2

1. Below is a Tic-Tac-toe (Noughts and Crosses) board, suggest some predefined values (from 1 to 5 where 5 is the best) which can be used to inform the AI where to make its initial move. Do some research on how to play the game for suggestions.

|  |  |  |
| --- | --- | --- |
| 1 | 3 | 1 |
| 3 | 5 | 3 |
| 1 | 3 | 1 |

1. Given the following situation, and assuming the AI is playing **X**, and is taking the next move, what heuristic might you consider? Stop the opponent from winning (choose the bottom-middle square for the next X, as shown):

|  |  |  |
| --- | --- | --- |
| X |  |  |
|  | X |  |
| O | X | O |

1. A game has a story line element where, once the player has completed a specified quest, a messenger should appear and deliver a note to the player requesting the player meet a local lord.
   1. What would be the most appropriate approach to this situation?
      1. A hack
      2. A heuristic (chosen approach)
      3. An algorithm
   2. Justify the decision made to the previous question. I believe that a heuristic would make sense as the logic is relatively simple: When the Player completes a certain quest, have a messenger (AI-Controlled)
   3. Given your choice in a. What could go wrong and how could you fix it.