

Quiz 1

Instructions:

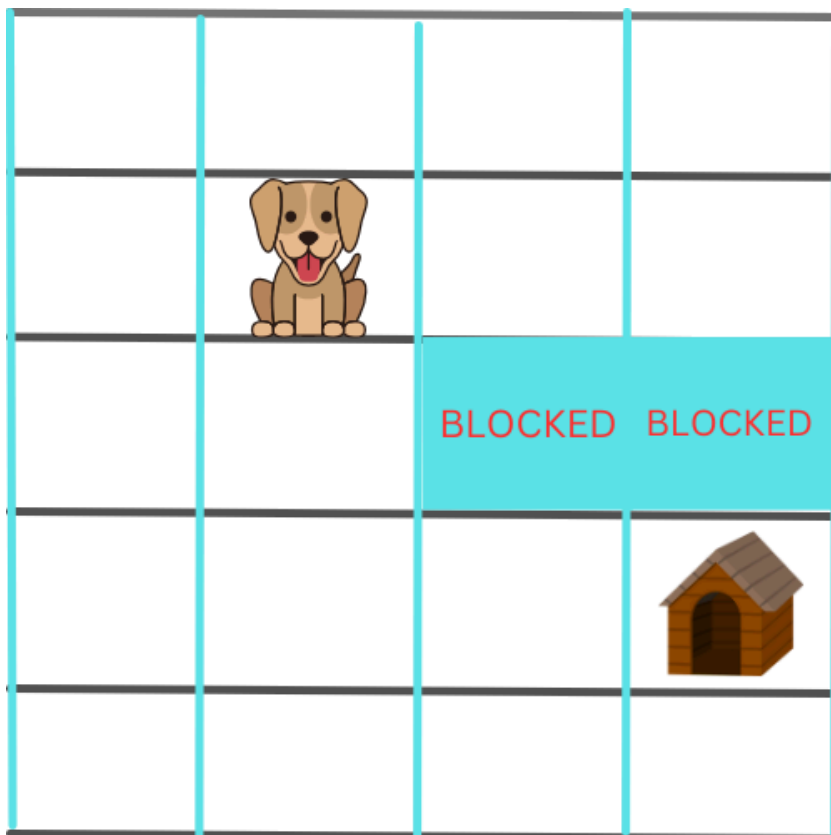
Write your code in Jupyter. Use of Google Colab is prohibited.

Allocated time is 1 hour including submission time.

Total marks are 10.

Help Robo in finding the home. Robo is currently at position (1,1) in Matrix. Home is located at (3,3) position. You have to find the shortest path between his current position and destination. The cells which are highlighted as blue located at (2,2) and (2,3) are blocked and cannot move to that location.

Find the illustration below



Write the **A*** algorithm and **print the minimum number of steps** robo is required to reach the destination, while robo can move either vertically or horizontally. Use Manhattan distance to find the distance.

Your code should display a minimum number of steps, an intermediate path to reach from start to final goal.