

AI Lab Assignment 4

1. Formulate 8-Queens, and traveling salesman problems and solve them using the following methods:
 - a. UCS
 - b. A*
 - c. Depth-first branch and bound
 - d. All the variants of Hill Climbing

You can define the objective and heuristic functions. Compare the solutions in terms of the number of expanded states.

2. Formulate the 8-puzzle problem and solve it using the above methods. Consider the following.

Cost: Moving blank incurs cost value 1.

Objective: To minimize the cost.

Heuristic function:

1. Manhattan distance
2. The number of tiles misplaced

Compare the solutions in terms of the number of expanded states.