23.03.2022

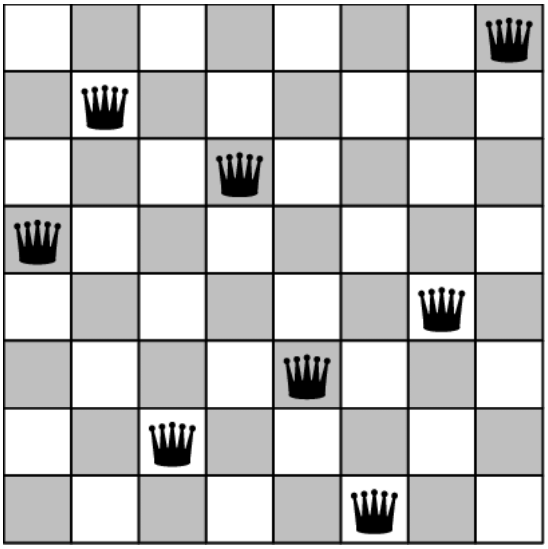
AYDIN ADNAN MENDERES UNIVERSITY

CSE 419 ARTIFICIAL INTELLIGENCE

ASSIGNMENT#1

Due Date: 10.04.2022 23:59

Consider the figure shown below.



Pick the first leftwise two columns of the chessboard stable and try to reach the solution for the remaining part of the chessboard by applying uninformed search algorithms (Breadth First Search, Depth First Search, Depth Limited Search, Iterative Deepening Search, Uniform Cost Search) and informed search algorithms (Greedy Best First Search, A* Search, Recursive Best First Search) benefitting from the source codes in the unit tests [1], [2] and their related implementations [3], [4] by considering the implementation of the environment for n-queens problem [5]. Use number of attacking pairs for the heuristic function in informed search strategies. Log each state as the console output and compare the corresponding metrics like expanded number of nodes among the algorithms in a table. Print the correct solution finally.

[1]https://github.com/aimacode/aima-java/tree/AIMA3e/aima-core/src/test/java/aima/test/core/unit/search/uninformed

[2]https://github.com/aimacode/aima-java/tree/AIMA3e/aima-core/src/test/java/aima/test/core/unit/search/informed

[3]https://github.com/aimacode/aima-java/tree/AIMA3e/aima-core/src/main/java/aima/core/search/uninformed

[4]https://github.com/aimacode/aima-java/tree/AIMA3e/aima-core/src/main/java/aima/core/search/informed
[5]https://github.com/aimacode/aima-java/tree/AIMA3e/aima-core/src/main/java/aima/core/environment/nqueens