COEN 166 Artificial Intelligence
Fall 2018

Lab Assignment #3: The N-Queens Problem
Assigned on October 8, 2018, Due on October 29, 2018

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Pseudocode

Depth-First Search Algorithm

Iterate through each row, per column of the chessboard. Check if the current square is safe. If it is safe, add the square to the frontier stack of states in the search. Then, recursively call the depth-first search algorithm on the next column. Once a state contains N queens on the board, add it to the solution set. Remove the current state from the frontier stack after returning from the previous recursive call.

Test Cases

Create two agents to test the 5-Queens and 8-Queens problems. Run the depth-first search algorithm on each agent to return their respective solution sets. Check if a verified solution exists within the solution set of each problem.