8 puzzle problem using DFS.

Algorithm:

let fringe be a list containing the initial state

loop
if fringe is empty return failure
node ← remove_first (fringe)
if node is a goal
then return the path from initial state to node
else
generate all successor node and add generated ~~node~~node to the front of fringe.

end loop

8 puzzle problem using BFS

Algorithm:

let fringe be a list containing the initial state

loop
if fringe is empty return failure
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if node is a goal
then return the path from initial state to node.
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end loop.

Vaccum-cleaner Agent

Algorithm:

Initialize the agents starting (x,y)

Loop untill all cells are clean

a. Percieve the current cell

b. If the cell is dirty:

Clean the current cell

else

check surrounding cell (up, down, left, right) to

See if any are dirty

Move to the next dirty cells using a stategy such as

BFS, DFS or random movements.

c. If no dirty cells are percieved, stop (all cells are clean).

end loop.

Sen 18.10