8 Puzzle game

1) BFS 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 successors of Node and

add generated nodes to the back of fringe

End Loop

2) Depth first search

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 successors of Node, and

add generated nodes to the front of fringe

End Loop

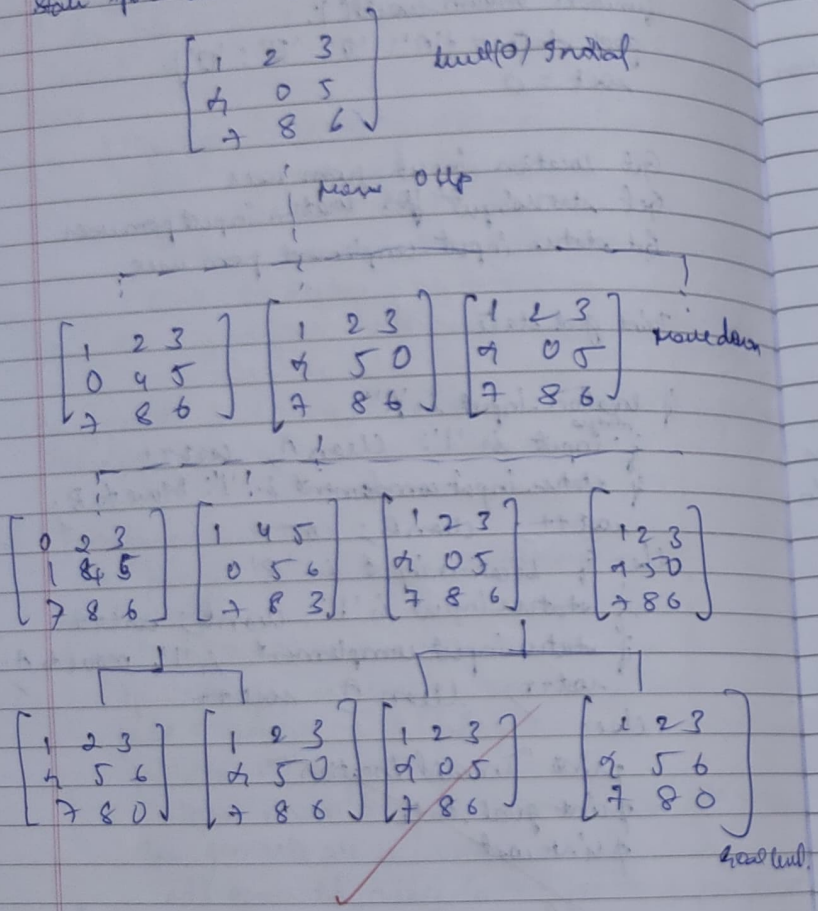
3) No solution

if queue exhausted without finding goal state, return none.

4) Display solution path from start to goal.

Output:

State space tree for 8 puzzle



- DFS