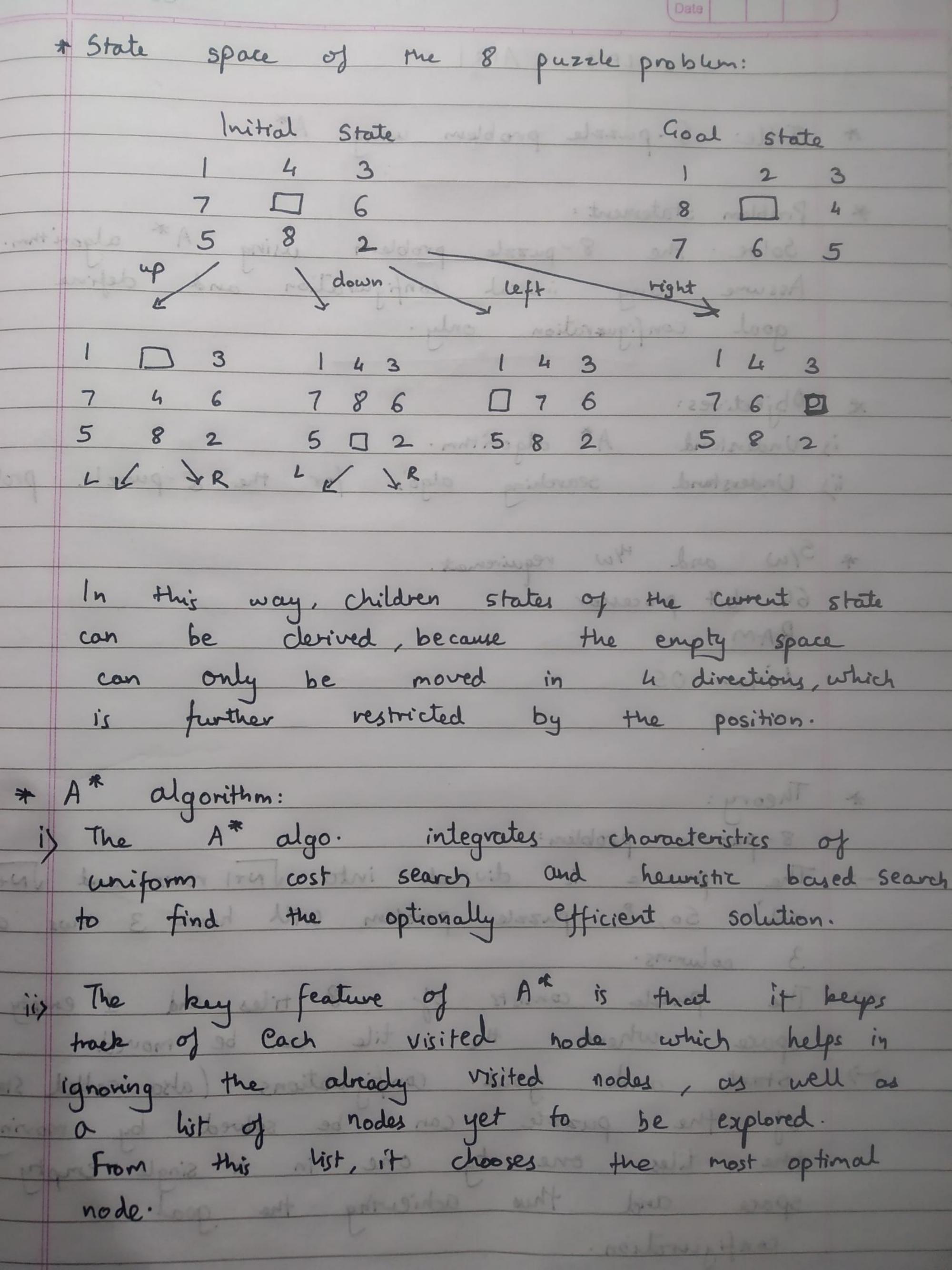
# Title: 8-puzzle problem using A*.  * Problem Statement.  Solve the 8-puzzle problem using A* algorithm.  Assume any initral configuration and define goal configuration only.  * 10 bjectives:  i) Understand A* algorithm.  ii) Understand Searching algo's for the 8-puzzle problem  * 5/w and the requirement.  64 bit processor  RAM  Linux OS  * Theory:  8-puzzle problem:  The puzzle is divided into Nr1 rows and Nr1 cols. So, 8 puzzle problem will have 3 rows and 3 columns.  The puzzle consists of 8 tiles and 1 empty  Space whom the tile		
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The puzzle consists of & &		puzzle problem will have 3 nows and
puzzle consists of 8 tiles and 1 empty	-> 7	commis.
	-	puzzle consists of 8 tiles and 1 empty
space where the tile can be moved.	1 4 195	pace where the tile can be moved.
and goal configurations (also 11.1 at )	14/20	and goal contiguentions (also 11.1 at 1
of the puzzle can be solved by moving	0	I the puzzle can be solved he main
PAGE AND THE PAGE	and the second second	The state of the s
space and thus achieving the goal empty	5	Dace and thus achieves in single empty
ing the goal		configuration.



iiis So, we use 2 lists namelyas Open List and b) closed list.

being generated and are not existing in the closed list.

As each node is explored, it is added to the closed list and its neighbours are added to the the open list, this is how the nodes expand.

The metric used to determine optimality of a node is the F-score.

F-score = h-scoret g-score

how for

the goal node is

number of nodes

traversed from stort

to current hode.

The h-score is the Manhattan dist. (dist bet 2 points)

h-score = |x1-x2|+ |y1-y2|

\* condusion:

From this assignment, I was able to understand the basics of 8 puzzle problems and the A# algorithm and hence implement this assignment.