## Home Ossignment -1

1- Provide a Stop-by-Stop procedure to solve 8-puzzle problem using AX Algorithm?

18 The 8-pulled phoblem is a sliding puzzle contains of 3x3 grid with 8 numbered tiles & one empty space.

The possible moves that a slide a file onto the empty space ('up', down', left', 'right')

Each has a uniform Got of 1

Initialize open & obsid list, A priority gueve Containing nodes that are get to be emplored, sorted by f(n) = g(n)th(n)

to to the loop untill the boal state is Reached a open list is empty.

Repeat the antill boul is found or no more nodes are left to emplore.

Reconstruct the Duth.

- 2. Phovide a Sty-ty-Styp probleme for solving map-colouring problem using longtraint satisfaction?
- The map colowing problem is an example of a long traint satisfaction Problem (CSP) is the goal to Colour a map. The most Common Strategies include Backtracking, Follward

checking a constraint propogation.

soward checking: After assigning a colour to a negion, climinale not colour from the domain, of all neighbouring regions. But tracking: It you reach a point where no valid colour ossignments can be made (ie all domains are empty), back thack to the pravious variable & try a different color.

pariables & BB, C, O have the infrared in handing the second to the Domains = Led, Green, Blue ?



Constairts &

A+B B+C C+D

Data Circu Tragonice; Date Color D&A A + C (if they are also neighboury)

Assign when apply forward decking to reduce the domains of B & D. Continue the process, cheeking constraints & of the end divining a starting with the tolliers first the interference backtracking.

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