

to an
external
file. [In case
external file, you need to
output to external file].

We have got some more queries regarding assignment 2

Let us fix some notations:

Notation 1: - Number of stacks can be used
is 3.

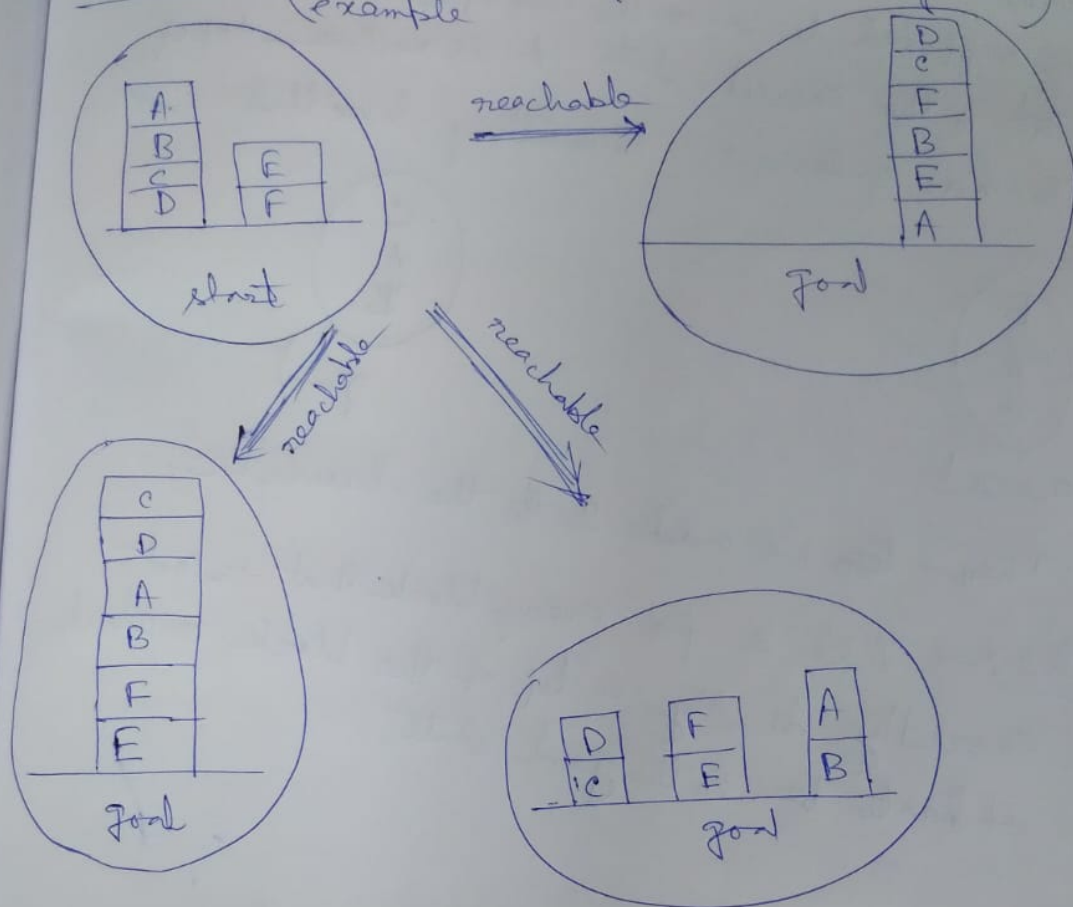
Notation 2: - Let us use 6 blocks only
A, B, C, D, E, F

Initial configuration: - You decide

Final configuration: - You decide

Let us see some examples.

Example 1 (You can test your code using this example)



There is a catch:

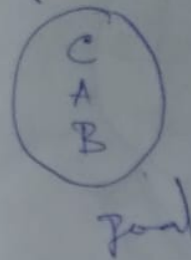
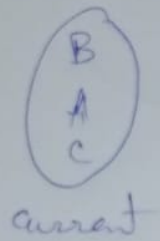
You have to design (think) heuristic functions. It may happen that using your particular heuristic some goals are not reachable. B

Some heuristics (You may think on more heuristics)

h1:- Calculates the number of blocks that are currently not in the correct position.

h2:- Calculates the difference between the current state and the goal state by looking at the details of

each block. Suppose in the goal state, block A is supposed to be on the top of B and under C. But in the current state A is neither top of B nor under C. Something like that



Then ~~two~~ we add 2 to the heuristic.

h3:- Add 2 for every block that is not currently directly on top of the block on which it has to be in the goal state.

h4:-

$$h4 = 2 \times (Z_1) + 4 \times (Z_2) \quad \text{where}$$

Z_1 = number of blocks that must be moved once

Z_2 = number of blocks that must be moved twice

You can design your own heuristics.

Read section 3.4 from text book.

Friday - 20-Jan-2023.