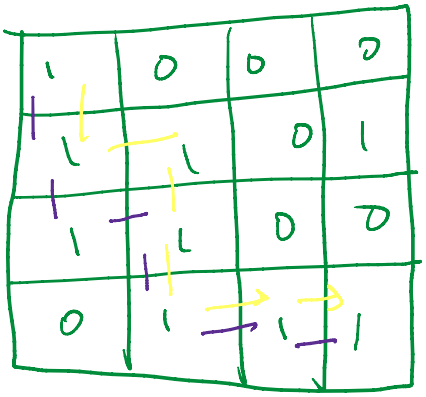
19 Oct

19 October 2022 21:11

Backtracking :

Rat in a Maze :-



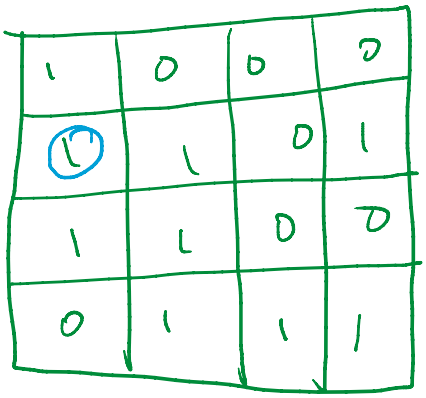
1 = Rat can move

0 = Rat can't move

D R DDRR

D D R D RR

- Rat can move U D L R (↑ ↓ ← →)
- one step at a time



(row) $i = 0$ to < 3

(col) $j = 0$ to < 3

U = i - 1

R = j + 1

D = i + 1

L = j - 1

- Set it to 0
- Go to possible dir
- Reset it

D R D D RR

D D R D R R

N - Queens :-

	0	1	2	3
0	F	T	F	F
1	F	F	F	T
2	T	F	F	F
3	F	F	T	F

Queen

n x n

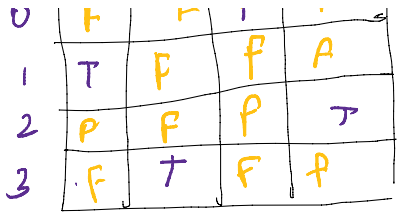
n queens

r = 0 to < 3

C = 0 + 0 + r + 0 + 2

	0	1	2	3
0	F	F	T	F
1	T	F	F	F

- Check if you can place the Q
  - Yes :-) Place it



- Check if you can place ...
  - Yes :- a) Place it
    - b) Recursion call for next Row & Col
    - c) Unplace it
  - No :- Move to next col