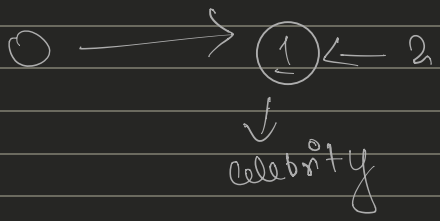
Celebrity Problem →

N = 3 → 3 persons

	0	1	2
0	0	1	0
1	0	0	0
2	0	1	0

M[0][1] => (1)
↓
0th person knows 1st person



M-1 => Brute force =>

Celebrity row will be zero & their column will be all one for other Rows

(a) => Celebrity => Row's all 0's
&
(b) => Celebrity => Col's all 1's
(all known's celebrity

Algo: check row & cols of each person

```
for(i -> n-1) -> O(n)
    row -> (a) -> O(n)
    col -> (b) -> O(n)      } -> O(n^2)
```

M-2 :- Stack :-

(1) :- Pull all person in stack

(2) :- while (st.size != 1){

A -> s.top()
B -> s.top()
if(A knows B){
A is not celebrity
discard A
push(B)
}else{
B is not celebrity
B is discarded
push(A)
}

(3) :- That single person in stack may be a celebrity

Let's verify it

N = 3

	0	1	2
0	0	1	0
1	0	0	0
2	0	1	0

(1) -> A = 2 , B = 1
if(M[A][B]){
2 is not celeb
}else push(1)

(2) -> A = 1 , B = 0
if (M[1][0]){
X
}else

② i is not celebrity
push i
}

③ ① - i might be a celebrity

Cond^n ④ -> all cols 1

Cond^n ⑤ -> All row should be zero