

celebrity problem →

Binary matrix →

0	0	1
1	0	0

Elimination

1
0

	0	1	2	3	4
0	0	1	0	1	
1	0	1	1	0	
0	0	0	0	0	
1	0	1	0	0	
0	1	1	1	0	

① only single celebrity may be possible

$$\text{arr}[3][i] = 0$$

4

3 x

4

3

1

2

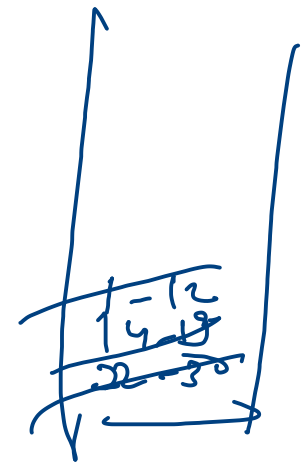
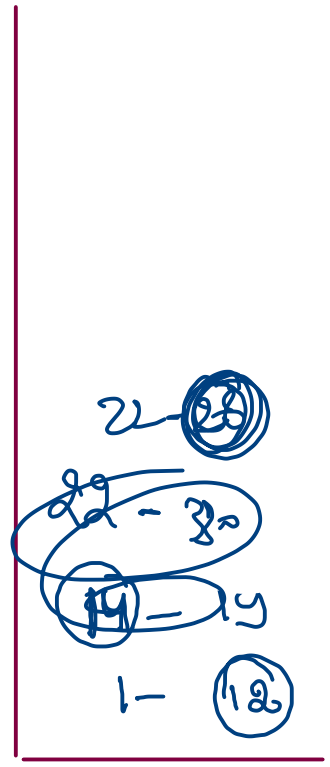
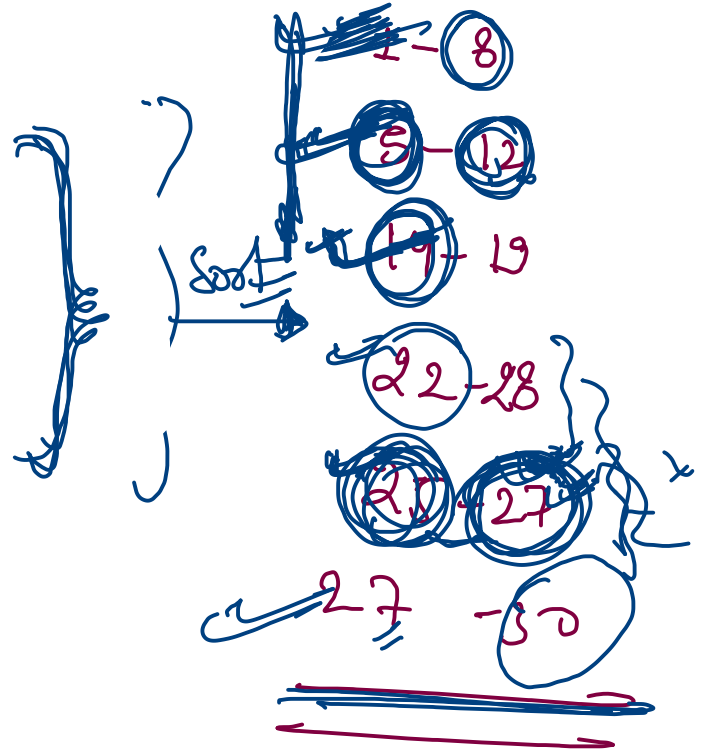
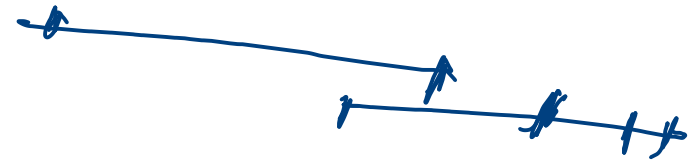
if (arr[4][3] == 1)

4 is not celebrity

3 is not celebrity

Potential candidate

# Merge Overlapping Intervals →



1 12  
14 19  
22 30

### Smallest Number following pattern

$${}^2d' \rightarrow \mathbb{Q} \hookrightarrow$$

$$1 \cdot 2 \rightarrow 12$$

$${}^3d^2d' \rightarrow 321 \quad \checkmark$$

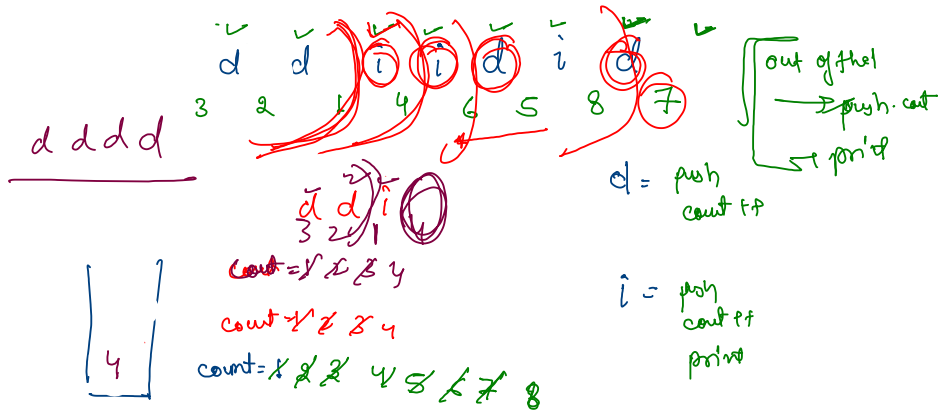
$$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & 1 \end{bmatrix} \longleftrightarrow \begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & 0 \end{bmatrix}$$

$${}^3d^2d^1; \textcircled{6} s d^4] \rightarrow 3 \ 2 \ 1 \ 6 \ 5 \ 4$$

$${}^3d^2d' \quad i^6d^5d' \quad i^8d^7 \rightarrow 3 \rightarrow 2, 1 \rightarrow 6, 5, 4 \rightarrow 8, 7$$

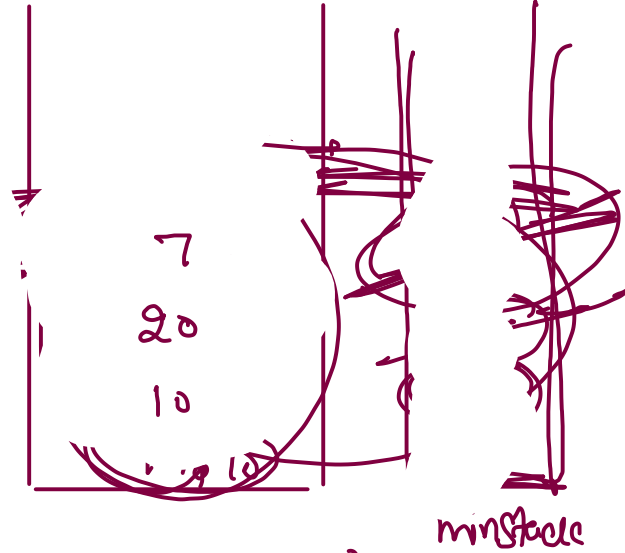
$$d^3 d^2 i^1 i^4 d^5 i^8 d^7 \rightarrow 3214587$$

$${}^3d^2 d^1 i^4 i^5 i^7 d^6 i^8 i^9 \rightarrow \underline{2} \underline{2} \underline{1} \underline{4} \underline{5} \underline{7} \underline{6} \underline{8} \underline{9}$$



# Min Stack - I

~~10~~ push 10  
 20 " 10  
 30 " 10  
 7 " 7  
 8 " "  
 5 " "  
 min → 5  
 pop → 5  
 pop → 6  
 min → 7



min = 7

~~10~~  
~~20~~  
~~7~~  
~~9~~  
 min → 7  
 pop → 9  
~~min~~ → 7  
 pop → 7  
 min → 7