

The Celebrity Problem

(1) $arr[i][celeb] = 1$

(2) $arr[celeb][i] = 0$

stack $cin > s$

for ($i = 0$ to $n-1$)

$s.push(i)$

while ($s.size() > 1$) {

$i = s.top(); s.pop()$

$j = s.top(); s.pop()$

if ($arr[i][j] == 0$)

$s.push(i)$

else

$s.push(j)$

int celeb = $s.pop()$

for ($i = 0; i < n; i++$)

if ($i \neq celeb \ \&\& \ (arr[i][celeb] == 0)$)

$arr[celeb][i] = 1$

return -1

}
return celeb;

$T.C = O(n)$

$S.C = O(n)$