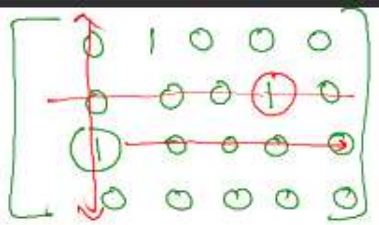
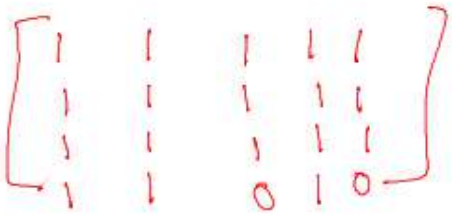
Question



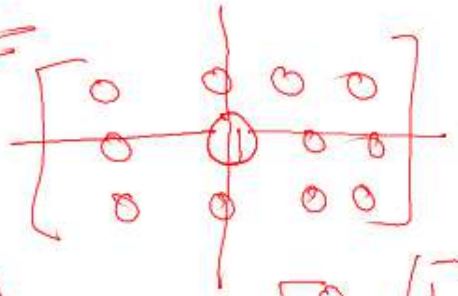
if arr[i][j] == 1
set make that row and col equal to 1

Sol

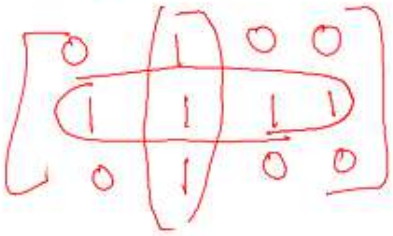
TC = O(n²)



modify by 1

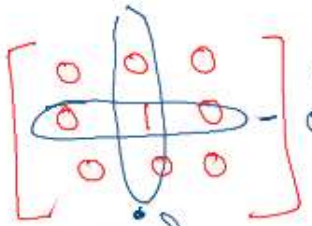


O(n²)



Brute force

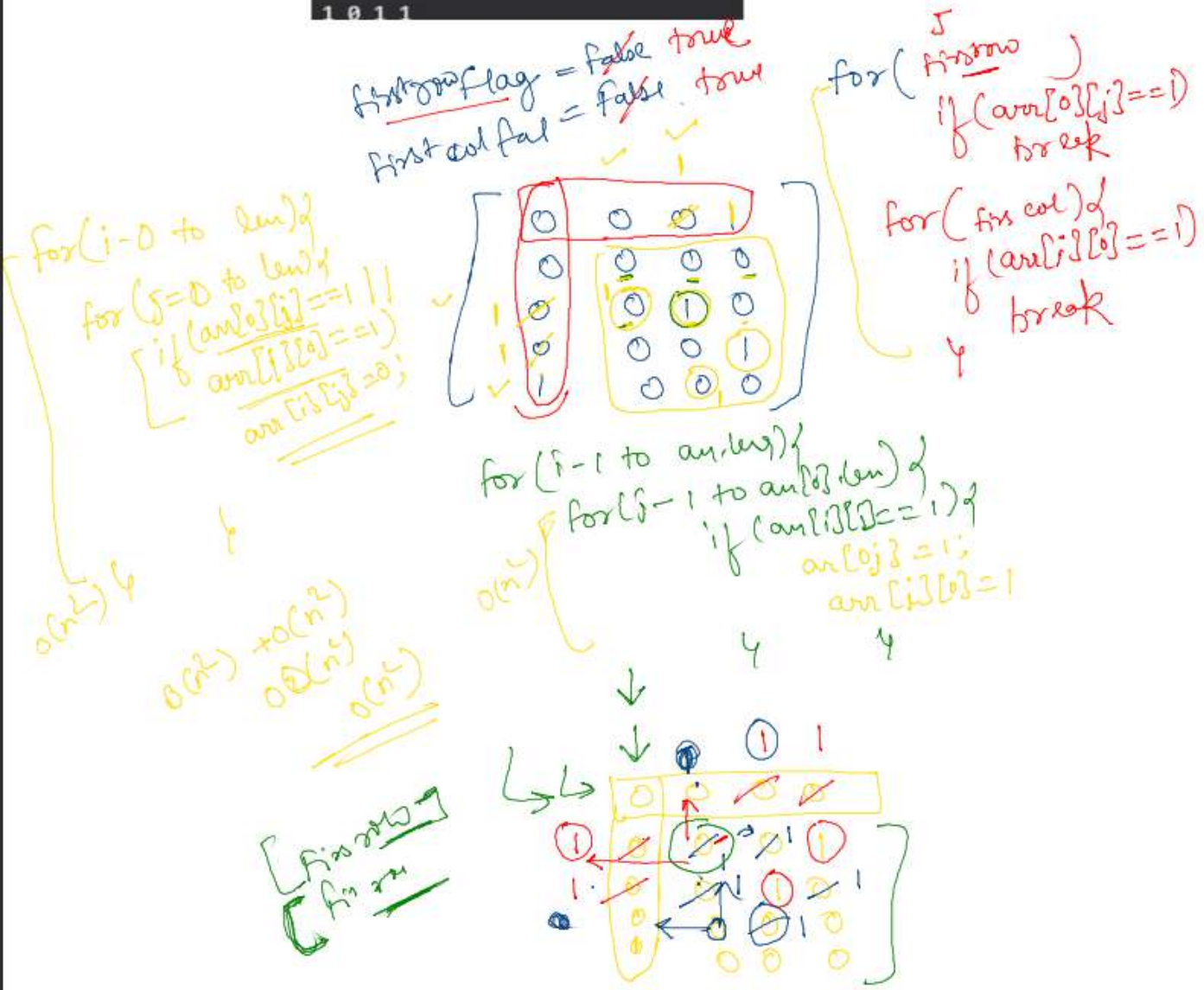
O(n³)



O(n²) for(i=0 to len){
for(j=0 to len){
if(arr[i][j]==1){
on for(row→){
modify
+
on for(col→){
modify
}}}

O(n²){O(n) + O(n)}
= O(n³)

```
The matrix
1 0 0 1
0 0 1 0
0 0 0 0
should be changed to following
1 1 1 1
1 1 1 1
1 0 1 1
```



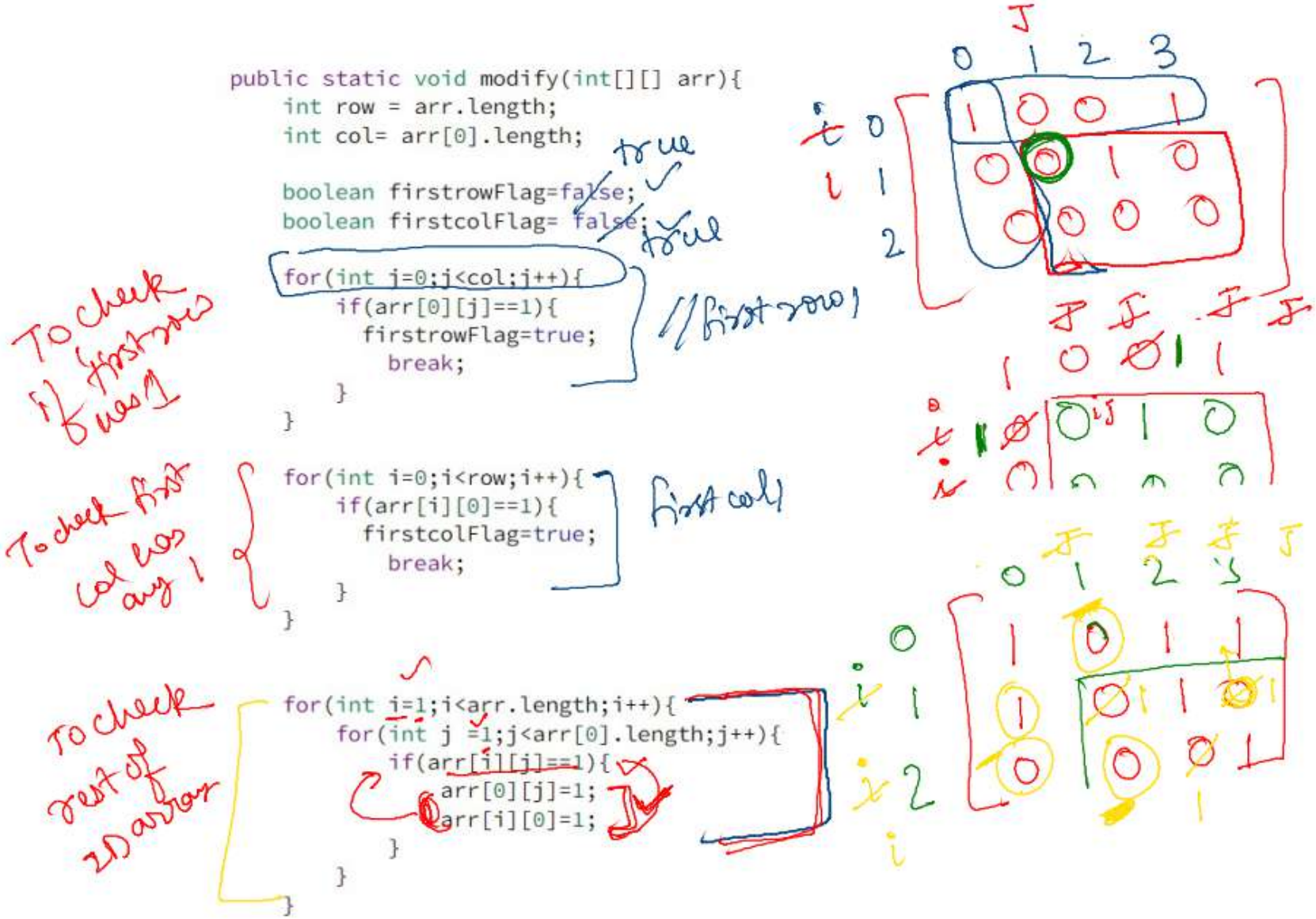
```java
public static void modify(int[][] arr){
    int row = arr.length;
    int col= arr[0].length;

    boolean firstrowFlag=false;
    boolean firstcolFlag= false;

    for(int j=0;j<col;j++){
        if(arr[0][j]==1){
          firstrowFlag=true;
            break;
        }
    }

    for(int i=0;i<row;i++){
        if(arr[i][0]==1){
          firstcolFlag=true;
            break;
        }
    }

    for(int i=1;i<arr.length;i++){
        for(int j =1;j<arr[0].length;j++){
            if(arr[i][j]==1){
                arr[0][j]=1;
                arr[i][0]=1;
            }
        }
    }
```

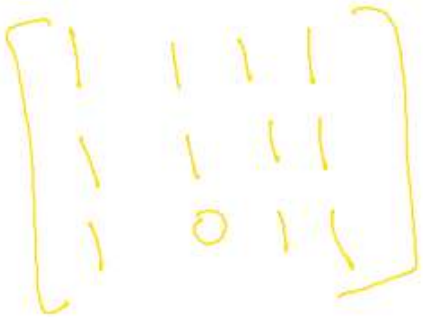


to modify rest of 2D Array

```
for(int i=1;i<arr.length;i++){
    for(int j =1;j<arr[0].length;j++){
        if(arr[0][j]==1 || arr[i][0]==1){
            arr[i][j]=1;
        }
    }
}
```

first row modify

```
if(firstrowFlag){
    for(int j=0;j<col;j++){
        arr[0][j]=1;
    }
}
```

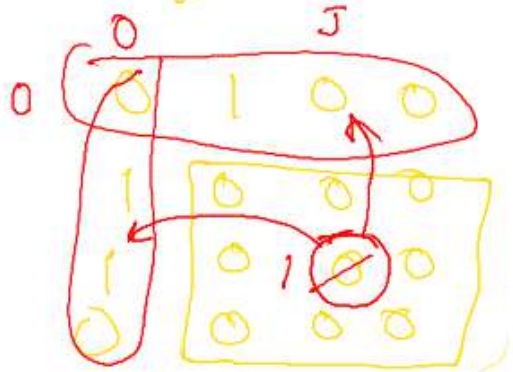


first col modify

```
if(firstcolFlag){
    for(int i=0;i<row;i++){
        arr[i][0]=1;
    }
}
```

arr[0][j]

arr[i][0]




```
if(arr[i][0]==1 ||
arr[0][j]==1)
{
    arr[i][j]=1;
}
```

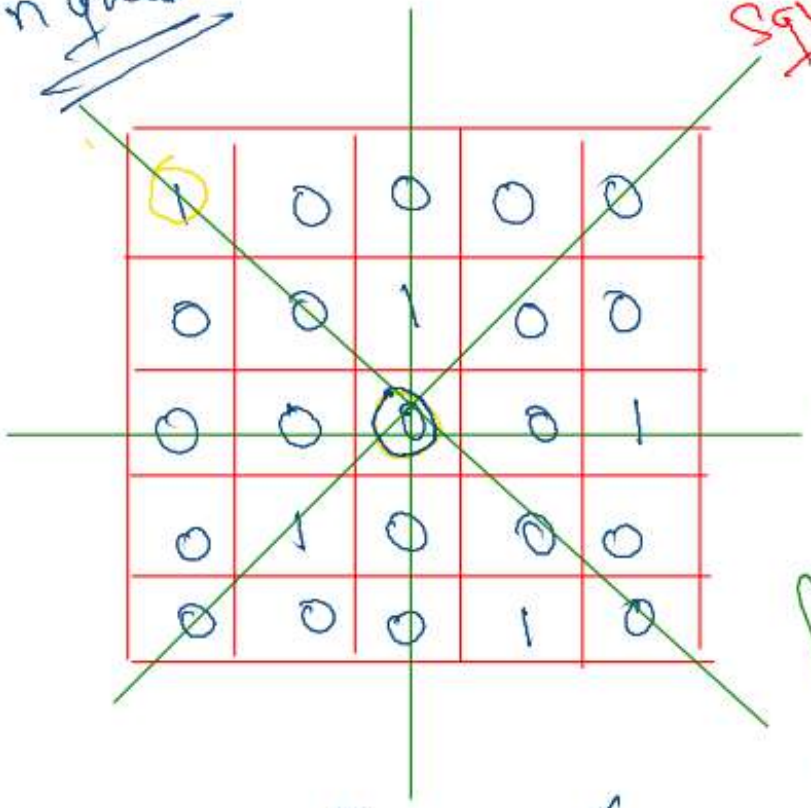
Ques

n queens

Square matrix of

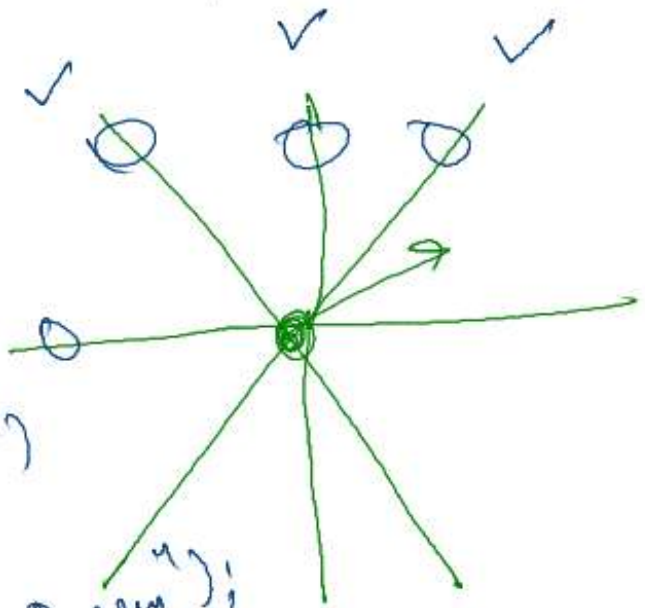
1 → there is queen

0 → no queen



any other diagonal has 1 or not

[danger]



Danger or no queen

for(to & cols)

arr[i][j] == 1

return true

if(true) {

sysout("Danger")

} else {

sysout("no queen");

}