

Revision.

1. Shift mat row wise.

	0	1	2	3
0	1	2	3	4
1	5	6	7	8
2	7	5	4	2

⇒

K=2

3	4	1	2
---	---	---	---

row = 0th

1	2	3	4
---	---	---	---

K=2

Rotate 1D array

3	4	1	2
---	---	---	---

2.

	C	1	0	1	1	
R	1	1	0	1	1	cols.
	1	0	1	1	0	
	0	0	0	0	0	

row

8 x C
3 x 4

2 x 1D Arrays.

↓
marked coordinates
of initial 1

↓
if (R[i] == 1
||
C[j] == 1)
A[i][j] = 1

N Queens Check

N Queens Check

Problems	Submissions	Leaderboard	Discussions
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Given a $n \times n$ chess board that contains 0 and 1. 0 means there is nothing at that place. 1 means there is a queen at that place. Print "Queens" if no queen attacks the other queen, otherwise print "Danger".

Sample Input 0

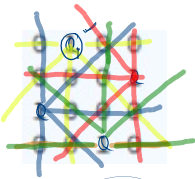
```
4
0 1 0 0
0 0 0 1
1 0 0 0
0 0 1 0
```

Sample Output 0

Queens

Sample Input 1

```
4
0 1 0 0
0 0 1 0
1 0 0 0
0 0 1 0
```



All queens are safe.

$$A(i, X_j) = 1$$

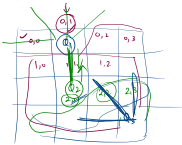
0	1	0	0
0	0	1	0
1	0	0	0
0	0	1	0

$$a_1 \rightarrow a_2$$

$$a_1 \rightarrow a_3$$

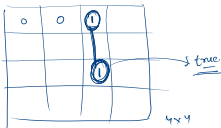
$$a_3 \rightarrow a_1?$$

$$1 \text{ queen} \rightarrow 8 \text{ directions}$$



$$4 \text{ directions}$$

$$0 \ 0 \ 0 \ 0$$

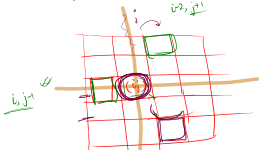


$$4 \times 4$$

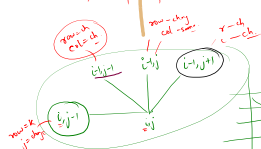
$$i, j$$

$$i+1, j+1$$

$$i+2, j+1$$



$$i+2, j+1$$



$$i-1, j-1$$

$$i-1, j$$

$$i-1, j+1$$

$$i, j+1$$

$$i+1, j+1$$

$$i+2, j+1$$

$$i+3, j+1$$

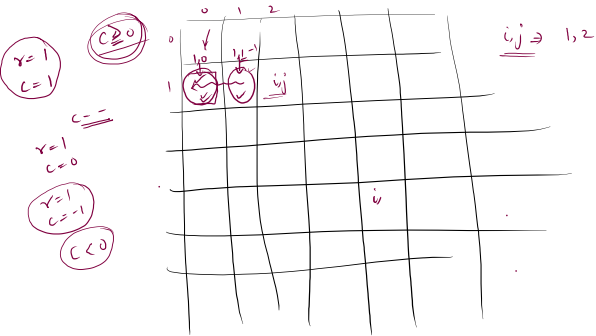
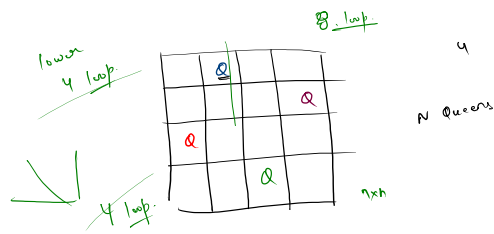
$$i+4, j+1$$

$$i+5, j+1$$

$$i+6, j+1$$

$$i+7, j+1$$

$$i+8, j+1$$



```
import java.util.*;
import java.util.*;

public class Solution {
    // Check will return true means queens are in danger
    public static boolean check(int[] A, int i, int j) {
        // Loop
        // Set direction (i, j)
        for (int r = i, c = j-1; c >= 0; c--) {
            if (A[r][c] == 1) {
                return true;
            }
        }
        // Set direction (i, j)
        for (int r = i, c = j+1; c < A.length; c++) {
            if (A[r][c] == 1) {
                return true;
            }
        }
        // Set direction (i, j)
        for (int r = i-1, c = j; r >= 0; r--) {
            if (A[r][c] == 1) {
                return true;
            }
        }
        // Set direction (i, j)
        for (int r = i+1, c = j; r < A.length; r++) {
            if (A[r][c] == 1) {
                return true;
            }
        }
    }

    return false;
}

public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] A = new int[n];
    for (int i = 0; i < n; i++) {
        A[i] = sc.nextInt();
    }
    boolean ans = false;
    // true means ... if is safe by default assuming safe, and true means in danger
    for (int i = 0; i < n; i++) {
        for (int j = 0; j < n; j++) {
            if (check(A, i, j) == true) {
                ans = true;
            }
        }
    }
    if (ans == true) {
        System.out.println("danger");
    } else {
        System.out.println("Queen");
    }
}
```

```
return false;

}

public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] A = new int[n];
    for (int i = 0; i < n; i++) {
        A[i] = sc.nextInt();
    }
    boolean ans = false;
    // true means ... if is safe by default assuming safe, and true means in danger
    for (int i = 0; i < n; i++) {
        for (int j = 0; j < n; j++) {
            if (check(A, i, j) == true) {
                ans = true;
            }
        }
    }
    if (ans == true) {
        System.out.println("danger");
    } else {
        System.out.println("Queen");
    }
}
```

Print Characters

Problem

Submissions

Leaderboard

Discussions

Given a string, Print all its characters such that each character is printed in a separate line.

"a m a n"

o/p
a
m
a
n

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        String s = scn.next();

        for(int i = 0; i < s.length(); i++){
            System.out.println(s.charAt(i));
        }
    }
}
```

Is Equal?

Problem

Submissions

Leaderboard

Discussions

Take two strings as input. Check if both these strings are exactly equal or not.

A → "geeks"
 0 1 2 3 4
B → "aman"
 0 1 2 3

→ A.length() = 5
→ B.length() = 4

A.length() != B.length()

```
import java.io.*;
import java.util.*;

public class Solution {
    public static boolean isEqual(String s, String r){
        if(s.length() != r.length()){
            return false;
        }

        for(int i = 0; i < s.length(); i++){
            if(s.charAt(i) != r.charAt(i)){
                return false;
            }
        }
        return true;
    }

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        String s = scn.next();
        String r = scn.next();

        boolean ans = isEqual(s,r);
        System.out.println(ans);
    }
}
```