PRODUCT COMPANIES PROGRAMS - SET 001

Solved Challenges **8/10**

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Smaller Matrix Search [ZOHO]

ID:3440 **Solved By 941 Users**

A bigger NxN matrix is passed as the input. Also a smaller MxM matrix is passed as input. The program must print TRUE if the smaller matrix can be found in the bigger matrix. Else the program must print FALSE.

Input Format:
First line will contain the value of N.
Second line will contain the value of M.
Next N lines will contain the values in the N*N matrix with each value separated by one or more space.
Next M lines will contain the values in the M*M matrix with each value separated by one or more space.

Output Format:
First line will contain the string value TRUE or FALSE

Boundary Conditions:
3 <= N <= 20
2 <= M <= N

Example Input/Output 1:
Input:
3
2
4 5 9
1 3 5
8 2 4
3 5
2 4

Output:
TRUE

Example Input/Output 2:
Input:
3
2
4 5 9
1 3 5
8 2 4
4 5
1 4

Output:
FALSE

Max Execution Time Limit: 5000 millisecs

Ambiance

Java (12.0)

Reset

```
import java.util.*;
public class Hello {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int N = sc.nextInt();
        int M = sc.nextInt();
        int[][] large = new int[N][N];
        int[][] small = new int[M][M];
        int flag = -1;

        for(int row=0;row<N;row++)
        {
            for(int col=0;col<N;col++)
            {
                large[row][col] = sc.nextInt();
            }
        }

        for(int row=0;row<M;row++)
        {
            for(int col=0;col<M;col++)
            {
                small[row][col]=sc.nextInt();
            }
        }

        for(int row=0;row<N-M+1;row++)
        {
            for(int col=0;col<N-M+1;col++)
            {
                if(small[0][0]==large[row][col])
                {
                    flag = 1;
                    for(int srow=0;srow<M;srow++)
                    {
                        for(int scol=0;scol<M;scol++)
                        {
                            if(small[srow][scol]!=large[row
                                +srow][col+scol])
                            {
                                flag=0;
                                break;
```

```
43                              }
44                          }
45                          if(flag==0)
46                          break;
47                      }
48                  }
49                  if(flag==1)
50                  {
51                      System.out.println("TRUE");
52                      return;
53                  }
54
55              }
56          }
57          System.out.println("FALSE");
58
59
60      }
```

Code did not pass the execution

Your Program Output:

FALSE

Save Run

Run with a custom test case (Input/Output)