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Input

```
3 3
10 22 30
20 12 60
7  18  11
```

Output

```
Enter the number of rows and columns of matrix
3   3
Enter the elements of matrix
10  22  30
20  12  60
7   18  11
The maximum element in 1 row is 30
```

Input

```
3 3
10 22 30
20 12 60
7  18  11
```

Output

```
7  18  11
The maximum element in 1 row is 30
The maximum element in 2 row is 60
The maximum element in 3 row is 18
The maximum element in 1 column is 20
The maximum element in 2 column is 22
The maximum element in 3 column is 60
```

Maximum of a row and column of Matrix

```
#include <stdio.h>
int main()
{
    int a[20][20], i, j, m, n, max;
    printf("Enter the number of rows and columns
            of matrix \n");
    scanf("%d %d", &m, &n);
    printf("Enter the elements of matrix \n");
    for(i=0; i<m; i++)
    {
        for(j=0; j<n; j++)
        {
            scanf("%d", &a[i][j]);
        }
        printf("\n");
    }

    for(i=0; i<m; i++)
    {
        max=0;
        for(j=0; j<n; j++)
        {
            if(a[i][j]>=max)
            {
                max = a[i][j];
            }
        }
    printf("The maximum element in %d row is
                %d", i+1, max);
        printf("\n");
}
```

```
for(i=0; i<m; i++)
{
    max=0;
    for(j=0; j<n; j++)
    {
        if(a[j][i] > max)
        {
            max = a[j][i];
        }
    }
    printf(" The maximum element in %d column
                                    is %d", i+1, max);
    printf("\n");
}
return(0);
}
```

Algorithm

step1 - start

step2 - Input m,n

step3 - Repeat for(i=0; i<m; i++)
Repeat for(j=0; j<n; j++)
Input a[i][j]
[End for]
[End for]

step4 - Repeat for(i=0; i<m; i++)
max=0
Repeat for(j=0; j<n; j++)
if(a[i][j] ≥ max)
max = a[i][j]
[End if]
[End for]
output max
[End for]

step 5 - Repeat for (i=0; i<m; i++)

max = 0

Repeat for (j=0; j<n; j++)

if (a[j][i] >= max)

max = a[j][i]

[End if]

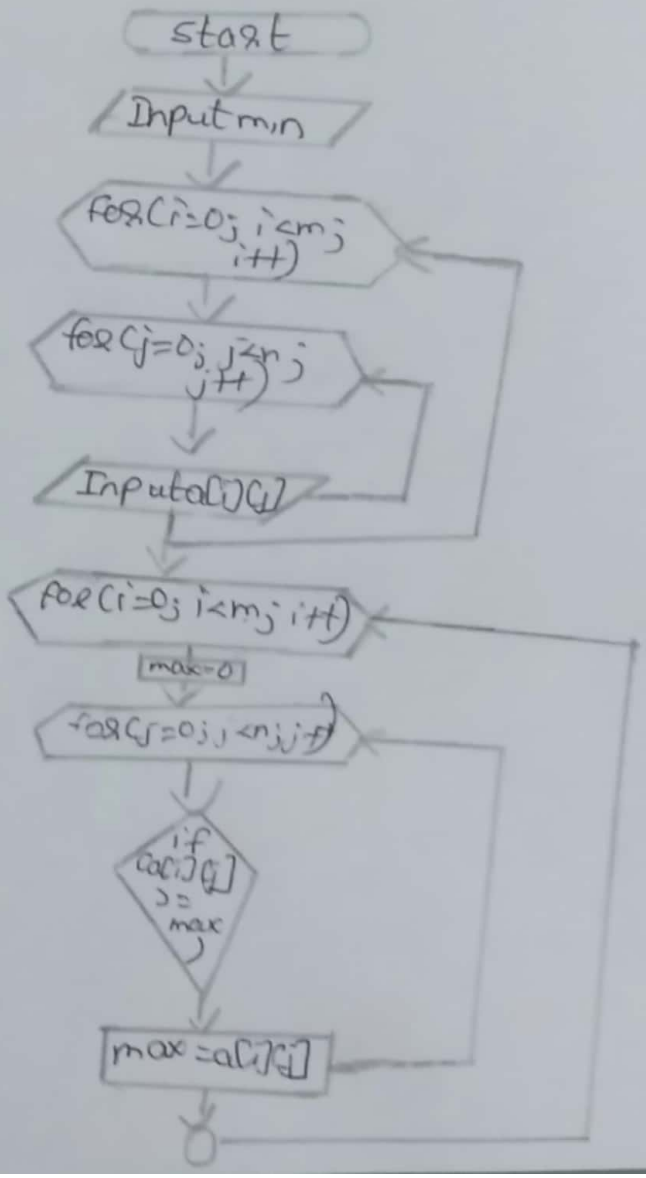
[End for]

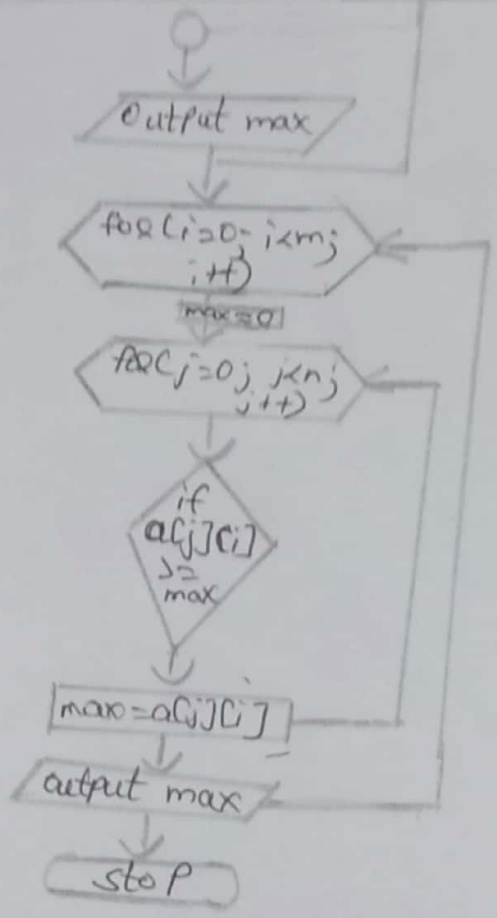
Output max

[End for]

step 6 - stop

Flowchart





Output

Enter the number of rows and columns of matrix

3 3

Enter the elements of matrix

10 22 30

20 12 60

7 18 11

The maximum element in 1 row is 30

The maximum element in 2 row is 60

The maximum element in 3 row is 18

The maximum element in 1 column is 20

The maximum element in 2 column is 22

The maximum element in 3 column is 60.