



Practice > Python > Numpy > Min and Max

Min and Max ☆

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min

The tool min returns the minimum value along a given axis.

```
import numpy

my_array = numpy.array([[2, 5],
                        [3, 7],
                        [1, 3],
                        [4, 0]])

print numpy.min(my_array, axis = 0)      #Output : [1 0]
print numpy.min(my_array, axis = 1)      #Output : [2 3 1 0]
print numpy.min(my_array, axis = None)   #Output : 0
print numpy.min(my_array)                #Output : 0
```

By default, the axis value is None. Therefore, it finds the minimum over all the dimensions of the input array.

max

The tool max returns the maximum value along a given axis.

```
import numpy

my_array = numpy.array([[2, 5],
                        [3, 7],
                        [1, 3],
                        [4, 0]])

print numpy.max(my_array, axis = 0)      #Output : [4 7]
print numpy.max(my_array, axis = 1)      #Output : [5 7 3 4]
```

Author DOSHI

Difficulty Easy

Max Score 20

Submitted By 9310

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```
print numpy.max(my_array, axis = None)    #Output : 7
print numpy.max(my_array)                 #Output : 7
```

By default, the axis value is None. Therefore, it finds the maximum over all the dimensions of the input array.

Task

You are given a 2-D array with dimensions $N \times M$.

Your task is to perform the min function over axis **1** and then find the max of that.

Input Format

The first line of input contains the space separated values of N and M .

The next N lines contains M space separated integers.

Output Format

Compute the min along axis **1** and then print the max of that result.

Sample Input

```
4 2
2 5
3 7
1 3
4 0
```

Sample Output

```
3
```

Explanation

The min along axis **1** = **[2, 3, 1, 0]**

The max of **[2, 3, 1, 0]** = **3**

Current Buffer (saved locally, editable)  

Python 3 



```
1 import numpy
2 n,m=[int(i) for i in input().split()]
3 array1=numpy.array([list(map(int,input().split()))
4   for i in range(n)])
5 array2=numpy.min(array1,axis=1)
```

```
5 print(numpy.max(array2))
6
7
8
```

Line: 5 Col: 23

Run Code

Submit Code

 Upload Code as File☐ Test against custom input

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Input (stdin)

```
4 2
2 5
3 7
```

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Expected Output

```
3
```

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Compiler Message

Success

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