Min and Max

110/115 challenges solved

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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]
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 NXM.

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 $\mathbf{1}$ = $[\mathbf{2, 3, 1, 0}]$

The max of $[\mathbf{2, 3, 1, 0}]$ = $\mathbf{3}$

Change Theme Language Python 3

```
1  import numpy as np
2
3  n, m = map(int, input().split())
4  arr = np.array([input().split() for _ in range(n)], int)
5
6  row_min = np.min(arr, axis=1)
7  print(np.max(row_min))
```

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110/115 challenges solved.

96%

Congratulations

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Next Challenge

- Test case 0
- Test case 1
- Test case 2

Compiler Message

```
Success
```

Input (stdin) Download

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

Expected Output Download

```
3
```