



## Execute Python Online (Python v2.7.13)

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Execute Share main.py STDIN

```
1 def counting_sort(array1, max_val):
2     m = max_val + 1
3     count = [0] * m
4
5     for a in array1:
6         # count occurrences
7         count[a] += 1
8         i = 0
9     for a in range(m):
10        for c in range(count[a]):
11            array1[i] = a
12            i += 1
13    return array1
14
15 arr=[1, 2, 7, 3, 2, 1, 4, 2, 3, 2, 1]
16 print("Array before sorting:")
17 print(arr)
18 print("Array after Sorting:")
19 print(counting_sort( arr, 7 ))
```

Result

```
$python main.py
Array before sorting:
[1, 2, 7, 3, 2, 1, 4, 2, 3, 2, 1]
Array after Sorting:
[1, 1, 1, 2, 2, 2, 2, 3, 3, 4, 7]
```

