sorted(iterable, /, *, key=None, reverse=False)
Return a new sorted list from the items in iterable. The collections which does not provide sort() method are sorted using sorted function. it is an immutable operation. This function return new iterable with sorted elements/values.

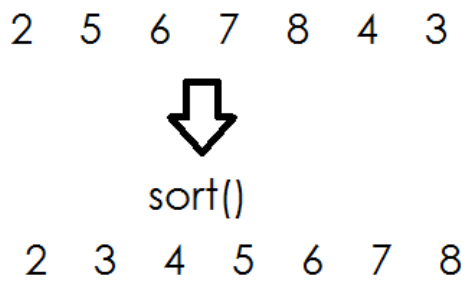
Example:

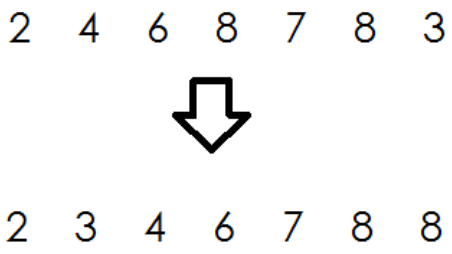
```
>>> t1=(5,2,6,3,4,1)
>>> t1.sort()
Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    t1.sort()
AttributeError: 'tuple' object has no attribute 'sort'
>>> list1=[5,2,6,3,4,1]
>>> list1.sort()
>>> print(list1)
[1, 2, 3, 4, 5, 6]
>>> t2=sorted(t1)
>>> t2
[1, 2, 3, 4, 5, 6]
>>> list2=sorted(list1,reverse=True)
>>> print(list2)
[6, 5, 4, 3, 2, 1]
```

What is difference between sort and sorted?
The main difference between sort and sorted in Python is that sort function returns nothing and makes changes to the original sequence, while the sorted () function creates a new sequence type containing a sorted version of the given sequence.

Sort is a method of list or mutable collection.
Sorted is a function, which is applied to mutable and immutable collections.

Write a program to find second maximum value of list?






```
list1=[5,9,1,4,5,7,9,8,2]
print(list1)
list1.sort()
print(list1)
m=max(list1)
c=list1.count(m)
print(f'First Maximum is {m}')
print(f'Second Maximum is {list1[-(c+1)]}')
```

Output:

```
[5, 9, 1, 4, 5, 7, 9, 8, 2]
[1, 2, 4, 5, 5, 7, 8, 9, 9]
First Maximum is 9
Second Maximum is 8
```

Example:

```
# Write a remove even numbers from list

list1=[1,2,3,4,5,6,8,10,12,14,18,20,17,22,15,24]
print(f'Before Deleting EvenNo {list1}')

i=0
l=len(list1)
while i<l:
    value=list1[i]
    if value%2==0:
        list1.remove(value)
        l=l-1
```

```
        continue

    i=i+1


print(f'After Deleting Even No {list1}')
```

Output:

```
Before Deleting EvenNo [1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 18, 20, 17, 22, 15, 24]
After Deleting Even No [1, 3, 5, 17, 15]
```