

# Python sorted

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**Summary:** in this tutorial, you'll learn how to use the Python `sorted()` function to sort a list.

## Introduction to the Python sorted() function

The `sort()` (<https://www.pythontutorial.net/python-basics/python-sort-list/>) method sorts a [list](https://www.pythontutorial.net/python-basics/python-list/) in place. In other words, it changes the order of elements in the original list.

To return the new sorted list from the original list, you use the `sorted()` function:

```
sorted(list)
```

The `sorted()` function doesn't modify the original list.

By default, the `sorted()` function sorts the elements of the list from lowest to highest using the [less-than operator](https://www.pythontutorial.net/python-basics/python-comparison-operators/) (`<`).

If you want to reverse the sort order, you pass the `reverse` argument as `True` like this:

```
sorted(list,reverse=True)
```

## Python sorted() function examples

Let's take some examples of using the Python `sorted()` function.

### 1) Using Python sorted() function to sort a list of strings

The following example uses the `sorted()` function to sort a list of strings in alphabetical order:

```
guests = ['James', 'Mary', 'John', 'Patricia', 'Robert', 'Jennifer']
sorted_guests = sorted(guests)

print(guests)
print(sorted_guests)
```

Output:

```
['James', 'Mary', 'John', 'Patricia', 'Robert', 'Jennifer']
['James', 'Jennifer', 'John', 'Mary', 'Patricia', 'Robert']
```

As you can see clearly the output, the original list doesn't change. The `sorted()` method returns a new sorted list from the original list.

The following example uses the `sorted()` function to sort the `guests` list in the reverse alphabetical order:

```
guests = ['James', 'Mary', 'John', 'Patricia', 'Robert', 'Jennifer']
sorted_guests = sorted(guests, reverse=True)

print(sorted_guests)
```

Output:

```
['Robert', 'Patricia', 'Mary', 'John', 'Jennifer', 'James']
```

## 2) Using Python sorted() function to sort a list of numbers

The following example uses the `sorted()` function to sort a list of numbers from smallest to largest:

```
scores = [5, 7, 4, 6, 9, 8]
sorted_scores = sorted(scores)

print(sorted_scores)
```

Output:

```
[4, 5, 6, 7, 8, 9]
```

The following example uses the `sorted()` function with the `reverse` argument sets to `True` . It sorts a list of numbers from largest to smallest:

```
scores = [5, 7, 4, 6, 9, 8]
sorted_scores = sorted(scores, reverse=True)

print(sorted_scores)
```

Output:

```
[9, 8, 7, 6, 5, 4]
```

## Summary

- Use the `sorted()` function to return a new sorted list from a list.

- Use the `sorted()` function with the `reverse` argument sets to `True` to sort a list in the reverse sort order.