

Some Python list methods

In the “Python: Introduction for Programmers” course we describe just a few methods of lists. This more complete document is for reference and interest; you do not need to memorise these for the course.

These methods return a value and do not change the list.

```
count(value)      How many times does value appear in the list?
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.count(2)
3
>>> numbers
[1, 2, 3, 1, 2, 3]
index(value)     Where is the first place value appears in the list?
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.index(2)
1
>>> numbers[1]
2
index(value, start)  Where is the first place value appears in the list at or after start?
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.index(2,1)
1
>>> numbers.index(2,2)
4
>>> numbers[4]
2
```

These methods change the list and do not return any value.

```
append(value)    Stick a single value on the end of the list.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.append(4)
>>> numbers
[1, 2, 3, 1, 2, 3, 4]
extend(list)     Stick several values on the end of the list.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.extend([5,6,7])
>>> numbers
[1, 2, 3, 1, 2, 3, 4, 5, 6, 7]
remove(value)    Remove the first instance of a value from the list.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.remove(2)
>>> numbers
[1, 3, 1, 2, 3]
insert(index, value)  Insert value so that it gets index index and move everything up one to make room.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.insert(3, 5)
>>> numbers
[1, 2, 3, 5, 1, 2, 3]
>>> numbers.insert(0, 6)
>>> numbers
[6, 1, 2, 3, 5, 1, 2, 3]
reverse()        Reverse the order of the list's items.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.reverse()
>>> numbers
[3, 2, 1, 3, 2, 1]
sort()           Sort the items in the list.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.sort()
>>> numbers
[1, 1, 2, 2, 3, 3]
```

This method, exceptionally returns a value (from the list) and changes the list itself.

```
pop()            Removes the last item from the list and returns it.
>>> numbers = [1, 2, 3, 1, 2, 3]
>>> numbers.pop()
3
>>> numbers
[1, 2, 3, 1, 2]
```