



APPLICATION OF LIST METHODS IN PRACTICE AND ITS ADVANTAGES

Z. Qadamova

*Ferghana branch of the Tashkent University of Information
Technologies named after Muhammad al-Khorezmi*

A. Khakimov

*Ferghana branch of the Tashkent University of Information
Technologies named after Muhammad al-Khorezmi*

D. Sotvoldieva

*Ferghana branch of the Tashkent University of Information
Technologies named after Muhammad al-Khorezmi*

Annotation: This article provides information on working with list methods in python. We use the methods presented in this article when we perform operations on lists.

Key words: Append, remove, pop, extend, insert, index, count.

Lists are one of the most commonly used data structures in Python. They allow us to store and manipulate collections of items. Python provides a variety of built-in methods that can be used to perform operations on lists. In this article, we will explore some of the most commonly used list methods in Python.

1. append()

The append() method is used to add an element to the end of a list. It takes a single argument, which is the element to be added. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']  
fruits.append('orange')  
print(fruits) # Output: ['apple', 'banana', 'cherry', 'orange']
```

2. extend()

The extend() method is used to append multiple elements to a list. It takes an iterable as an argument and adds each element of the iterable to the end of the list. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']  
more_fruits = ['orange', 'grape']  
fruits.extend(more_fruits)  
print(fruits) # Output: ['apple', 'banana', 'cherry', 'orange', 'grape']
```



3. insert()

The insert() method is used to insert an element at a specific position in a list. It takes two arguments: the index at which the element should be inserted, and the element itself. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']
fruits.insert(1, 'orange')
print(fruits) # Output: ['apple', 'orange', 'banana', 'cherry']
```

4. remove()

The remove() method is used to remove the first occurrence of a specified element from a list. It takes a single argument, which is the element to be removed. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']
fruits.remove('banana')
print(fruits) # Output: ['apple', 'cherry']
```

5. pop()

The pop() method is used to remove and return an element from a specific position in a list. It takes an optional index argument, which specifies the position of the element to be removed. If no index is provided, it removes and returns the last element of the list. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']
removed_fruit = fruits.pop(1)
print(removed_fruit) # Output: 'banana'
print(fruits) # Output: ['apple', 'cherry']
```

6. index()

The index() method is used to find the index of the first occurrence of a specified element in a list. It takes a single argument, which is the element to be searched. Here's an example:

```
fruits = ['apple', 'banana', 'cherry']
index = fruits.index('banana')
print(index) # Output: 1
```

7. count()

The count() method is used to count the number of occurrences of a specified element in a list. It takes a single argument, which is the element to be counted. Here's an example:

```
fruits = ['apple', 'banana', 'cherry', 'banana']
count = fruits.count('banana')
```



```
print(count) # Output: 2
```

8. sort()

The `sort()` method is used to sort the elements of a list in ascending order. It modifies the original list in place. Here's an example:

```
numbers = [5, 2, 8, 3, 1]
numbers.sort()
print(numbers) # Output: [1, 2, 3, 5, 8]
```

You can also use the `reverse` parameter to sort the list in descending order:

```
numbers = [5, 2, 8, 3, 1]
numbers.sort(reverse=True)
print(numbers) # Output: [8, 5, 3, 2, 1]
```

These are just a few more examples of the list methods available in Python. There are many more methods and functionalities that you can explore to manipulate and work with lists effectively in Python.

These are just a few of the many methods available for working with lists in Python. By using these methods effectively, you can perform a wide range of operations on lists and manipulate them according to your needs.

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