

Day 23

Lists Methods

list.sort()

This method sorts the list in ascending order. The original list is updated

Example 1:

```
colors = ["voilet", "indigo", "blue", "green"]
colors.sort()
print(colors)
```

```
num = [4,2,5,3,6,1,2,1,2,8,9,7]
num.sort()
print(num)
```

Output:

```
['blue', 'green', 'indigo', 'voilet']\n[1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 8, 9]
```

What if you want to print the list in descending order?
We must give reverse=True as a parameter in the sort method.

Example:

```
colors = ["voilet", "indigo", "blue", "green"]
colors.sort(reverse=True)
print(colors)
```

```
num = [4,2,5,3,6,1,2,1,2,8,9,7]
num.sort(reverse=True)
print(num)
```

Output:

```
['voilet', 'indigo', 'green', 'blue']\n[9, 8, 7, 6, 5, 4, 3, 2, 2, 2, 1, 1]
```

The reverse parameter is set to False by default.

Note: Do not mistake the reverse parameter with the reverse method.

reverse()

This method reverses the order of the list.

Example:

```
colors = ["voilet", "indigo", "blue", "green"]
colors.reverse()
print(colors)
```

```
num = [4,2,5,3,6,1,2,1,2,8,9,7]
num.reverse()
print(num)
```

Output:

```
['green', 'blue', 'indigo', 'voilet']
[7, 9, 8, 2, 1, 2, 1, 6, 3, 5, 2, 4]
```

index()

This method returns the index of the first occurrence of the list item.

Example:

```
colors = ["voilet", "green", "indigo", "blue", "green"]
print(colors.index("green"))
```

```
num = [4,2,5,3,6,1,2,1,3,2,8,9,7]
print(num.index(3))
```

Output:

```
1
3
```

count()

Returns the count of the number of items with the given value.

Example:

```
colors = ["voilet", "green", "indigo", "blue", "green"]
print(colors.count("green"))
```

```
num = [4,2,5,3,6,1,2,1,3,2,8,9,7]
```

Output:

```
2
3
```

copy()

Returns copy of the list. This can be done to perform operations on the list without modifying the original list.

Example:

```
colors = ["voilet", "green", "indigo", "blue"]
newlist = colors.copy()
print(colors)
print(newlist)
```

Output:

```
['voilet', 'green', 'indigo', 'blue']
['voilet', 'green', 'indigo', 'blue']
```

append():

This method appends items to the end of the existing list.

Example:

```
colors = ["voilet", "indigo", "blue"]
colors.append("green")
print(colors)
```

Output:

```
['voilet', 'indigo', 'blue', 'green']
```

insert():

This method inserts an item at the given index. User has to specify index and the item to be inserted within the insert() method.

Example:

```
colors = ["voilet", "indigo", "blue"]
#      [0]   [1]   [2]

colors.insert(1, "green") #inserts item at index 1
# updated list: colors = ["voilet", "green", "indigo", "blue"]
#   indexs      [0]   [1]   [2]   [3]

print(colors)
```

Output:

```
['voilet', 'green', 'indigo', 'blue']
```

extend():

This method adds an entire list or any other collection datatype (set, tuple, dictionary) to the existing list.

Example 1:

#add a list to a list

```
colors = ["voilet", "indigo", "blue"]  
rainbow = ["green", "yellow", "orange", "red"]  
colors.extend(rainbow)  
print(colors)
```

Output:

```
['voilet', 'indigo', 'blue', 'green', 'yellow', 'orange', 'red']
```

Concatenating two lists:

You can simply concatenate two lists to join two lists.

Example:

```
colors = ["voilet", "indigo", "blue", "green"]  
colors2 = ["yellow", "orange", "red"]  
print(colors + colors2)
```

Output:

```
['voilet', 'indigo', 'blue', 'green', 'yellow', 'orange', 'red']
```