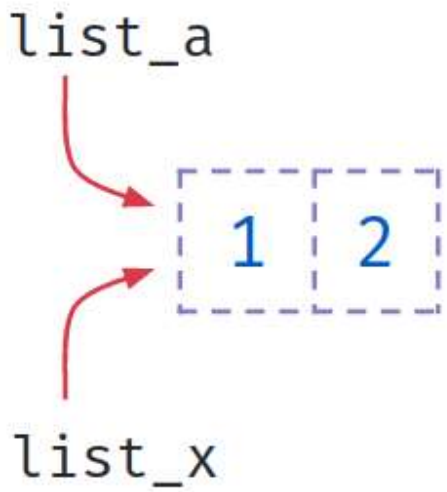
Cheat Sheet

Passing Mutable Objects

The same object in the memory is referred by both

list_a and list_x



Code

PYTHON

```
def add_item(list_x):
    list_x += [3]

list_a = [1,2]
add_item(list_a)
print(list_a)
```

Output

```
[1, 2, 3]
```

Code

PYTHON

```
def add_item(list_x):
```

```
    list_x = list_x + [3]

list_a = [1,2]
add_item(list_a)
print(list_a)
```

Output

```
[1, 2]
```

Default args are evaluated only once when the function is defined, not each time the function is called.

Code

PYTHON

```
def add_item(list_x=[]):
    list_x += [3]
    print(list_x)

add_item()
add_item([1,2])
add_item()
```

Output

```
[3]
[1, 2, 3]
[3, 3]
```

Built-in functions

Built-in functions are readily available for reuse.

We are already using functions which are pre-defined in Python

- print()
- int()
- str()
- len()

Finding Minimum

min() returns the smallest item in a sequence or smallest of two or more arguments.

PYTHON

```
min(sequence)
min(arg1, arg2, arg3 ...)
```

Example - 1

Code

PYTHON

```
smallest= min(3,5,4)
print(smallest)
```

Output

```
3
```

Example - 2

Code

PYTHON

```
smallest = min([1,-2,4,2])
print(smallest)
```

Output

```
-2
```

Minimum of Strings

min(str_1, str_2)

Strings are compared character by character using unicode values.

- P - 80(unicode)
- J - 74(unicode)

Code

PYTHON

```
smallest = min("Python", "Java")
print(smallest)
```

Output

```
Java
```

Finding Maximum

max() returns the largest item in a sequence or largest of two or more arguments.

PYTHON

```
max(sequence)
max(arg1, arg2, arg3 ...)
```

Example - 1

Code

PYTHON

```
largest = max(3,5,4)
print(largest)
```

Ouput

```
5
```

Example - 2

Code

PYTHON

```
largest = max([1,-2,4,2])
print(largest)
```

Output

```
4
```

Finding Sum

sum(sequence) returns sum of items in a sequence.

Code

PYTHON

```
sum_of_numbers = sum([1,-2,4,2])
print(sum_of_numbers)
```

Output

5

Ordering List Items

`sorted(sequence)` returns a new sequence with all the items in the given sequence ordered in increasing order.

Code

PYTHON

```
list_a = [3, 5, 2, 1, 4, 6]
list_x = sorted(list_a)
print(list_x)
```

Output

```
[1, 2, 3, 4, 5, 6]
```

Ordering List Items - Reverse

`sorted(sequence, reverse=True)` returns a new sequence with all the items in the given sequence ordered in decreasing order.

Code

PYTHON

```
list_a = [3, 5, 2, 1, 4, 6]
list_x = sorted(list_a, reverse=True)
print(list_x)
```

Output

```
[6, 5, 4, 3, 2, 1]
```

Submit Feedback