Cheatography

Python 3.x Quick Reference

by tbyds via cheatography.com/62247/cs/15998/

Data Type Summary

Numeric (Integer)	Store whole number values
Numeric (Float)	Store decimal number values
Numeric (Complex)	Stores complex number values
Boolean	Stores true (or false) values (in an integer)
String	Stores an ordered sequence of alphanumeric character values
Tuple	Stores an ordered sequence of immutable data values. ()
Lists	Stores an ordered sequence of mutable data values. []
Dictionaries	Stores key value pairs (mappings) {}
Set	Stores an unordered collection of unique and immutable objects

Slices

[x:y]	Slices from index x up to index y (up to!)
[x:]	Slices from index x to last index in the set
[:y]	Slices from the first index up to index y
[:]	Slices the entire set
[-1]	Slices the last item from the set
[:-x]	Slices everything except the last x items from the set. (generalized)
[x:y:z]	Slices from index x up to index y (up to!), by step z

Arithmetic Operations

+	Addition (or string concatenation)
-	Subtraction or Negation
*	Multiplication (or string repetition)
/	Division
%	Modulus
**	Exponential
//	Floor Division (integer)

Logical Operators

and	Logical And
or	Logical Or
not	Logical Not

Simple Function

```
def MaxFunc(x,y):
    if x>y:
        return x
    else:
        return y
```

Bitwise Operators

<<	Shift left
>>	Shift Right
&	Binary AND
|	Binary OR
~	Binary NOT
^	Binary XOR

Don't confuse binary not with logical not!

Membership Operators

x in y	True if the value x can be found in y.
x not in y	True if the value x can not be found in y.

Identity Operators

x is y	True if x and y are variables that reference the same data underneath!
x is not y	Only true if x and y are independent. They may have the same value!

Identity operators verify that the variables are located on the same part of the memory.

Assignment Operators

x = y	Simple assignment x=y
x += y	x=x+y
x -= y	x=x-y
x *= y	x=x*y
x /= y	x=x/y
x %= y	x=x%y
x //= y	x=x//y
x **=y	x=x**y
x &=y	x=x & y
x|=y	x=x | y
x^=y	x=x^y
x>>=y	x=x >> y
x<<=y	x=x << y

Sample If Statement

```
if crew_age < 10:
  rank = junior
elif age < 18:
  rank = ensign
else:
  rank = commander
```

By **tbyds**
cheatography.com/tbyds/

Not published yet.
Last updated 16th June, 2018.

List Operations

Creating an list

```
crew = ['Spock','McCoy']
```

Getting first item from the list

```
first = crew[0]
```

Get the last item from the list

```
last = crew[-1]
```

Looping through the list

```
for person in crew:
  print(person)
```

Adding items to a list

```
crew.append('Kirk')
```

Slicing a list

```
human=crew[1:2]
```

Pointer to a list (same data)

```
crew2=crew
```

Duplicate of the list (copy of data)

```
duplicate=crew[:]
```

Dictionaries

Creating a dictionary

```
example_dictionary = {1:"Orange",2:"Apple",3:"Banana",4:"Peach",5:"Pear"}
```

Accessing a value

```
print (example_dictionary[2])
```

Adding a new key-value pair

```
example_dictionary[15]="Plum"
```

Looping through all key-value pairs

```
for key in example_dictionary:
  print(key,example_dictionary[key])
```

Looping through all keys

```
for key in example_dictionary.keys():
  print("Key:",key)
```

Looping through all values

```
for value in example_dictionary.values():
  print("Value:",value)
```

Simple while loop

```
i=0
while i<10:
  i=i+1
  print("loop - iteration #",i)
print("Done")
```

Loop control

break	immediate exit of loop
continue	resumes at test condition of the loop