

Python Reference Guide



Main data types

boolean = True / False
integer = 10
float = 10.01
string = "123abc"
list = [value1, value2, ...]

Numeric Operators

+ addition
- subtraction
***** multiplication
/ division
****** exponent
% modulus
// floor division

Boolean Operators

and logical AND
or logical OR
not logical NOT

Comparison Operators

== equal
!= not equal
> higher
< lower
>= higher or equal
<= lower or equal

Special characters

comment
\n new line
\t tab
\<char> escape char

Assignment operators

= simple assignment **x=y**
+= increment assignment **x+=y**
-= decrement assignment **x-=y**
***=** multiplication assignment **x*=y**
%= remainder assignment **x%=y**
/= division assignment **x/=y**
//= floor division assignment **x//=y**

String operations

string[i] retrieves character at position i
string[-1] retrieves last character
string[i:j] retrieves characters in range i to j

String methods

string.upper() converts to uppercase
string.lower() converts to lowercase
string.count(x) counts how many times x appears
string.find(x) position of the first occurrence of x
string.replace(x,y) replaces x with y
string.islower() returns True if all characters are lowercase
string.isupper() returns True if all characters are uppercase
string.isalnum() returns True if all characters are alphanumeric
string.isalpha() returns True if all characters are alphabetic
string.isdigit() returns True if all characters are digits
string.format(x) replaces {} with x and returns a formatted string
string.strip(x) returns a string with leading and trailing characters removed

List operations

list = [] defines an empty list
list[i] = x stores x with index i
list[i] retrieves the item with index i
list[-1] retrieves last item
list[i:j] retrieves items in the range i to j
del list[i] removes the item with index i

List methods

list.append(x) appends x to the end of the list
list.extend(L) appends L to the end of the list
list.insert(i,x) inserts x at i position
list.remove(x) removes the first list item whose value is x
list.pop(i) removes the item at position i and returns its value
list.clear() removes all items from the list
list.index(x) returns the position of the first occurrence of x in a list
list.count(x) returns the number of times x appears in a list
list.sort() sorts items in a list
sorted(L) returns a new list with L items sorted
list.reverse() reverses list elements
list.copy() returns a copy of the list

Legend: x, y = any data values; s = string; n = number; L = List

Built-in functions		Conditional statements		Reading and writing files	
print(x, sep='y')	prints x objects separated by y	if <condition> :		f = open(<path>,'r')	
input(s)	prints s and waits for an input that will be returned	<code>		f.read(<size>)	
		elif <condition> :		f.readline(<size>)	
		<code>		f.close()	
		...			
len(x)	returns the length of x (s or L)	else:		f = open(<path>,'r')	
min(L)	returns the minimum value in L	<code>		for line in f:	
max(L)	returns the maximum value in L			<code>	
sum(L)	returns the sum of the values in L			f.close()	
range(n1,n2,n)	returns a sequence of numbers from n1 to n2 in steps of n	if <value> in <list>:			
		Loops			
abs(n)	returns the absolute value of n	while <condition>:		f = open(<path>,'w')	
round(n1,n)	returns the n1 number rounded to n digits	<code>		f.write(<str>)	
				f.close()	
type(x)	returns the type of x (string, float, list ...)	for <variable> in <list>:		Functions	
		<code>		def function(<params>):	
str(x)	converts x to a string			<code>	
list(x)	converts x to a list	for <variable> in range(start,stop,step):		return <data>	
int(x)	converts x to an integer number	<code>			
float(x)	converts x to a float number	Loop control statements			
bool(x)	converts x to a Boolean value	break	finishes loop execution	import module	
pow(n1,n2)	returns n1 to the power of n2	continue	jumps to next iteration	module.function()	
chr(x)	returns the string value of a Unicode code	pass	does nothing		
				from module import *	
ord(x)	returns the Unicode code of a single-character string			function()	
map(function, L)	applies function to values in L				

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