Python - Baisc Usage & Syntax Cheat Sheet

by shadowG (grimeswong) via cheatography.com/49785/cs/41384/

Comment

comment - single line	# this is a single line comment
comment - multiline comments	""" this is multi lines comments """

Variables Declaration

integer	students_count = 1000
decimal	rating = 4.99
boolean	is_published = False
string - single line	course_name = "Python"
string - multiple lines	course_name = """ Multiple Lines """
string concatenation	full_name = first_name + " " + last_name
formatted string	full_name = f"{first_name} {last_name}"
assign multiple variables	x, y, z = "John", "Alex", "May"
one value to multiple variables	x = y = z = "Value"
uppack	animals = ["monkey", "cat", "dog"] x, y, z = animals

boolean - capitalise the first letter
single line - can use either single or double quote
multiple lines - use triple double quote to wrap the entire strings
formatted string - use 'f' and curly braces with the double quotes wrap with the separated strings

Output Variables

text output	print("Hello World")
variable output	print(x + y + x)

Global Variable

```
def myfunc():
      global x
     x = " John"
myfunc()
print( " Hello " + x)
```

Data Types

text Type: str
numeric Types: int, float, complex
sequence Types: list, tuple, range
mapping Type: dict
set Types: set, frozenset
boolean Type: bool
binary Types: bytes, bytearray, memoryview
none Type: NoneType

Collection Types

List - like an array	fruits = ['apple', 'orange', 'banana']
Dictionary - key value pair	fruit = {'name'='apple, 'colour: 'red'}
Tuples - order is unchangable	fruit = ('apple', 'orange', 'banana')
Set - set items are unchangable	fruit = {'apple', 'orange', ;banana'}

If - else

while loop

for loop

function

Built-in function

check type of variable	x = 2.8	print(type(x))	<class 'float'>
casting	int(), float(), str()	x = int(3)	x will be 3
input	username = input("-Enter your name")	user type "John"	username = "John"

Strings

slicing strings	a = "Hello World"	print(a[2:7])	'llo W'
from index to the end		print(a[2:])	'llo World'
from start to index		print(a[:8])	'Hello Wo'
from negative to negative	-2 is not included 'd'	print(a[-7:-2])	'o Wor'

String Methods

upper case	print("Hello World".upper())	"HELLO WORLD"
lower case	print("Hello World".lower()	"hello world"
trim white space (leading & trailing)	print(" No Space ".strip	"No Space"
replace string	print("Hello John".replace("John","Alex"))	"Hello Alex"
split string	print("Hello, World".split(",")	return ["Hello", "World"]

String Concatenation

use '+' operator	`" Hello " + " Wor ld"`	"Hello World"
use join()	`" ".jo in( ["Hello " ," World] "`	"Hello World"
use format() - convert number to text	`age = 18" text = "I am {} years old" print( tex t.f orm at( a ge))`	"I am 18 years old"

"+' operator cannot combine string and number
{} is a placeholder

Formatted String

```
# formatted string
first = " Mos h"
last = " Ham eda ni"
full = f"{f irst} {last} "
print( full)
```

Number

```
There are three types of number: integer, float &
complex number
x = 1 # integer
x = 1.1 # float
x = 1 + 2j # a + bi # complex number
print(10 + 3) # addition
print(10 - 3) # subtra ction
print(10 * 3) # multip lic ation
print(10 / 3) # division outcome with float
print(10 // 3) # division outcome with integer
print(10 % 3) # modulus, the remainder of a
division
print(10 ** 3) # exponent, the power
```