Cheatography

ritttt Cheat Sheet

by rit via cheatography.com/25887/cs/7003/

Basiccode

print()	Show information that you want on the screen
input()	Gain information from user
len()	The length of the string
int()	Change number to be number integer
float()	Change number to be decimal number
str()	A list of number, letter and symbols
#	Comment

Vocab

Variable	Hold a value and can be change
String	A list of character such as number, letter and symbols
Integer number	whole number/ counting number
Float point	The number in decimal
syntax	Grammar/Structure of lauguage
Modulo	Find the remainder
Boolean	True/False

Example

```
Print (2) - integer
Print (2.5) - floating point
Print (“Hello”) - string
Print (mystr) - variable
Print (mystr,”Hi”,2,1.0) -- commas
```

Example (cont)

```
mystr = “Hi”
mystr ← name
“Hi” ← value can change
print (int(1.5)) → 1
print (int(“2”)) → 2
print (float(1)) → 1.0 anything to a float
Modulo/Remainder %
print (4%2) → 0
print (30%7) → 2
```

Sort per line

```
mystr = "Hello"
letter_num = 0
while letter_num < len(mystr):
print (mystr[letter_num])
letter_num = letter_num + 1
H
e
l
l
o
```

Print name

name = "tim GIRARD"

print (name.upper()) → TIM GIRARD
print (name.lower()) → tim girard
print (name.capitalize()) → Tim girard
print (name.title()) → Tim Girard

Math

==	equal to
!=	no equal to
<	less than
>	more than
<=	less than or equal
>=	more than or equal to
%	modulo, find the remainder

Addition

string + string	Combine together
string + number	crash
number + number	addition

Multiplication

string * number	combine that string multiple times
string * string	crash
number * number	multiply
string ** string	crash
number ** number	exponents
string ** number	crash

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Published 12th February, 2016.
Last updated 11th February, 2016.

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Naming Convertion

```
Rule for giving name
- letter
- numbers
- underscore _
Valid name
- _myStr
- my3
- Hello_there
Invalid name
- 3my=”hi” -- cannot start with number
- first name=”hi”
- first-name
```

Area of circle

```
"""
Python Intro Assignment #2
name
student number
"""
#Ask the user for a radius of a circle
user_radius = input("What is a radius of a circle?")
#Convert the given radius to a floating point
radius = float(user_radius)
#Make a variable called pi
pi = float(3.1415)
#Calculate the area of the circle using exponents
area = pi(radius*2)
#Display the area of the circle to the user
print ("The area of the circle is", area)
```

Reverse word

```
while True:
word = input("Please enter a word")
index = 0
reverse = ''

while int(index) < len(word):
reverse = word[index] + (reverse)
index = int(index) + 1

print ("Reverse: ", reverse)
```

Convert to binary

```
user_number = ' '
while user_number != ' 0 ' :
user_number = input ("Enter a number to convert to binary")
number = int(user_number)
binary_string = ' '
while (number > 0):
remainder = number%2
binary_string = str(remainder)+ binary_string
number = number//2
print ("Binary string is", binary_string)
```

countdown Machine

```
user_number = input("What number do you want to count down? ")
number = int(user_number)
countdown_string = ' '
while number > 0:
countdown_number = countdown_string + str(number) + " "
number = number - 1
#print(number)
print (countdown_string)
```

Sort fruit list

```
fruits = [] #an empty list
for number in range(5):
user_fruit = input("Please enter a fruit")
fruits.append(user_fruit)
print ("Size of fruit list is", len(fruits))
fruits.sort()
for fruit in fruits:
print ("Fruit: ", fruit)
```

random.choice

```
import random
intlist = [9,8,7,6,5,4]
random_int = random.choice(intlist)
print (intlist, random_int)
fplist = [0.2,0.3,0.3]
random_fp = random.choice(fplist)
print (fplist, random_fp)
strlist = ["ABC", "BCA", "CAB"]
random_str = random.choice(strlist)
print (strlist, random_str)
mylist =[1,3,6,12,"ABC", "DEF", "HIJ"]
random_item =random.choice(mylist)
print (mylist, random_item)
myvar1 = 1
myvar2 = 2
myvay3 = 3
varlist =[myvar1, myvar2, myvar3]
random_var = random.choice(varlist)
print (varlist, random_var)
```

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