Cheatography

python cheat sheet Cheat Sheet

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volcabulary

variable	something that can change
string	a list of characters
integer number	whole number/counting number
float number	The number in decimal
syntax	grammar/structure of language
modulo	find the remainder
boolean	true/false
argument	A value passed to a function (or method) when calling the function.
parameter	A named entity in a function definition that specifies an argument that the function can accept.

Function

print()	displays information on the screen
input()	receive info from the user
len()	show the number of word in the string
int()	convert string or decimal number into integer number

Function (cont)

float()	convert string or integer number into decimal number
str()	convert value to word(s)
#	comment, no effect
range()	the list of number between two numbers
def	define function
while	create loop with some condition.
for	create loop with no condition

0 01 0123 01234

```
mystring = ""
for items in range(5):
    mystring = mystring +
str(items)
    print(mystring)
#or
mystring = ""
index = 0
while index < 5:
    mystring = mystring +
str(index)
    print (mystring)
    index = index + 1
```

Math

==	equal to
!=	no equal to
<	less than
>	more than
<=	less than or equal to
>=	more than or equal to
%	Modulo, find the remainder
/	divide with answer as a float. e.g. 5/2=2.5
//	divide with answer as an integer. e.g. 5//2=2
**	exponent

Naming Convention

Invalid name

-3my="hi"	--cannot start with number

-first name="hi"

-first-name

Basic Calculator

```
def calc(num1, num2,
operation):
    if operation=="sum":
       return sum(num1,
num2)
    elif
operation=="product":
        return
product(num1, num2)
    elif
operation=="diff":
        return diff(num1,
num2)
    elif
operation=="div":
        return div(num1,
num2)
    else :
        print ("No
operation")

def sum(a, b):
    myvar1 = a+b
    return myvar1
def product(a, b):
    myvar2 = a*b
    return myvar2
def diff(a, b):
    myvar3 = a-b
    return myvar3
def div(a, b):
  if b!=0 :
      return (a//b)
  else:
      print ("Error")
print (calc(10,0,"div"))
print (calc(1,2,"sum"))
print (calc(4,2,"diff"))
print (calc(9, 3,"div"))
print (calc(2,
12,"product"))
```

Fibonacci

```
index = 0
index2 = 0
Fibo = ""
while index < 50:
    if index == 0:
        Fibo = Fibo +
str(index)
        index = index
+ 1
    elif index > 0:
        Fibo = Fibo +
", " + str(index)
        index = index
+ index2
        index2 =
index-index2
print (Fibo)
```

Reverse Word

```
while True:
        word =
input("Please enter a
word")
        index = 0
        reverse = ""
         while
int(index) <
len(word):
                  rev
erse = word[index] +
(reverse)
                  ind
ex = int(index) + 1
        print("Revers
e: ",reverse)
```

even and odd

```
even = 0
odd = 0
while True:
    mynum =
int(input("Enter the
positive number: "))
    if mynum > 0:
        if mynum%2 ==
0:
            even =
even + 1
        elif mynum%2
!= 0:
            odd =
odd+1
    elif mynum < 0:
        break
print (even, (" of
them are even."))
print (odd, (" of
them are odd."))
```

Guessing Game

```
import random
mylist = ['happy',
'love' , 'flower' ,
'golden' ,
'valentine',
'rainbow']
score = 0
chance = 5
print (mylist)
random_item =
random.choice(mylist)
while chance > 0 :
    user_guess =
input("Guess a word:
")
```

Guessing Game (cont)

```
    if user_guess == random_item:
        print ("That's correct!")
        score = score + 100
        print ("Score: ",score)
        random_item =
random.choice(mylist)
    else:
        chance = chance - 1
        print ("Chance Remaining:
",chance)
        if user_guess in mylist:
            print ("Sorry, wrong
choices")
        else:
            print ("Sorry, that is not
even in the list !")
print ("Final Score: ",score)
print ("Game Over!The word
was",random_item)
```

While loop list

```
whileList =
['Guy','Pop','Pat','Kim','Cliff','Anon']
index = 0
while index < len(whileList):
    print (whileList[index])
```

While loop list (cont)

```
    index = index + 1
```

Max value in list

```
#Example 1
def max2(num1, num2):
    maxvalue = num1
    if num2 >
maxvalue:
        maxvalue =
num2
    return maxvalue
print (max2(3,5))
#Example 2
def max3(num1, num2,
num3):
    maxvalue = num1
    if num2 > num3 >
maxvalue:
        maxvalue =
num2
    elif num3 > num2>
maxvalue:
        maxvalue =
num3
    return maxvalue
print (max3(3,5,9))
#Example 3
def maxlist(list):
    maxvalue =
list[0]
    for num in list:
        if maxvalue <
num:
            maxvalue
= num
    return maxvalue
print
(maxlist(range(0,56))
)
```

area of circle calculation

```
def areaOfCircle(r):
    if r <= 0:
        return "Error"
    pi = 3.1415
    area = pi*r*2
    return area
user_radius =
float(input("Enter the
radius: "))
radius =
float(user_radius)
print ("the area of the
circle
is",areaOfCircle(radius))
```

palindrome

```
def isPalindrome(word):
    index = 0
    while index <
1/2*len(word):
          if word[index]
== word[len(word)-1-
index] :
             index =
index+1
          else :
             return False
    return True
while True:
    word = input("Enter
your word: ")
    if word ==
str("quit"):
        break
    else:
```

palindrome (cont)

```
       if
isPalindrome(word) == True
:
             palindrome =
(word + str(" is a
palindrome."))
       else :
             palindrome =
(word + str(" is not a
palindrome."))


    print(palindrome)
```