Cheatography

Python Cheat Sheet

by Sonnylnw MUIDS via cheatography.com/25876/cs/6997/

Function

str()	make the number or symbol
input()	to get infomation from the user
print()	to show some infomation that in the code
int()	the integers
len()	length of the string
#	comment
"""..... ."""	multiple line comment

List2

```
mylist = [1,2,3,4,5]
mulist2 = ['hi', 'hello',
'anyth ing']
mylist3 = [1, 'hello', 2.5
print (mylist)
print (mylist2)
print (mylist3)
number = range(100)
for nm in number:
        print (num)
```

Name strip

```
firstname = input("what is your
first name? ")
lastname = input( "what is your
lastname? ")
fullname = firstname + " " +
lastname
print( "Your fullname is ")
print (fullname)
letter number = input( "what is
letter number? ")
mynumber = int(le tte rnu mber)-
1
```

Name strip (cont)

```
> if (mynumber) > len(fullname):
   print ("invalid letter number, try again")
else:
   print (fullname[mynumber])
   repeat = input("how many times you want
to print the letter? ")
   myrepeat = int(repeat)
   if (myrepeat) > 99:
      print ("too many letter! ")
   else:
      print(fullname[mynumber]*(myrepeat))
```

Import random

```
import random
chance = 3
score = 0
mylist = ['Hack', 'ToeyD.',
'Patte r', 'Ti m', 'Lily']
random _item = random.ch oic -
e(m ylist)
while chance > 0:
        print (mylist)


        print ("Ch ances
Remaining =",c hance)
        guess = input( " Guess a
word from the above :")


       if guess == random _item:
                score = score +
100
                print ("That's
correc t!", "The score is :",s -
core)
                ran dom _item =
random.ch oic e(m ylist)
        else:
                print ("Sorry,
wrong choice !")
                chance = chance
- 1
       if guess in mylist:
                print ("")
```

Import random (cont)

```
>    else:
      print ("Sorry,that is not even in the
list!")
   if chance == 0:
      print ("Game Over! The word was",ra-
ndom_item)
      print ("Final score: ",score)
```

write alltheoutcome

```
mystring = ""
count = 0
while count < 5:
        mys tring = mystring +
str(count)
        print (mystring)
        count = count + 1
OUTCOMEIS
0
01
012
0123
01234
```

areaofEllipse

```
def areaofEllipse(radius1,
radius2):
       pi = 3.142
       area = pi*radius1radius2
        return area
ra1 = int(in put ("put in the
radius 1"))
ra2 = int(in put ("put in the
radius 2"))
print (areao fEl lip se(ra1,
ra2))
OUTPUT
put in the radius 14
put in the radius 25
```


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areaofEllipse (cont)

> 62.839999999999996

DEFINATION

```
def printDefinition(word):
        if word == " var iab le":
                print ("""
                A variable is the
the thing that can be changed.
                " " ")
        elif word == " par ame -
ter ":
                print ("""
                A parameter is
the limiting factor
                " " ")
        elif word == " arg ume -
nt":
                print ("""
                An argument is
the identifier that you give to
function
                " " ")
        elif word == " str -
ing ":
                print ("""
                A string is
something that can be repeated
by the number.
                " " ")
        elif word == " fun ction
call":
                print ("""
                A function call
is the word you use to reuse the
function.
                " " ")
         else:
                print ("un known
word")
while True:
         use r_input = input( " -
Please type the word :")
```

DEFINATION (cont)

> printDefinition(user_input)

OUTPUT

Please type the word :variable

A variable is the the thing that can be changed.

Vocab

Variable	The unknow that can be change
Float	Decimal number
String	Number, Letter, and symble
Syntax	The programing language
Boolean	True or False
Paramiter	some thing you give to function

Reverse

```
reverse = ""
letter_num = 0
word = input( 'type in a word:
')
" " "
while letter_num < len(word):
        reverse = word[l ett -
er_num] + reverse
        let ter_num = letter_num
+ 1
" " "
for letter in word:
        reverse = letter +
reverse
print ('reverse: ',reverse)
```

Reverse2

```
hello = "hello there!"
out = " "
for letter in hello:
         out = letter+out
print(out)
```

Number to Binary

```
user_number = input("Enter
number to convert to binary : ")
number = int(us er_ number)
binary _string = ''
while (number > 0):
         rem ainder = number % 2
         bin ary _string =
str(re mai nder) + str(bi nar -
y_s tring)
         number = number // 2
print ("Binary string is", bin -
ary _st ring)
```

Countdown

```
user_number = input("Please
enter a number: ")
number = int(us er_ number)
countd own _string = ''
while number > 0:
         cou ntd own _string =
countd own _string + str(nu -
mber)
         number = number - 1
print (count dow n_s tring)
```


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Find Area of Circle

```
def aofc(r):
        if r <= 0:
                return " Error:
radius <=0 "
        pi = 3.1415
        area = pi * 2
         return area
user_r adius = input( " enter
the radius: ")
radius = float( use r_r adius)
print( "The area of the circle
is", aofc(r adius))
```

Max value

```
# write a function that returns
the largest of two values
# name: max2
# arguments: num1, num2
# return: the largest value
def max2 (num1, num2):
         max value = num1

        if num2 > num1:
                max value = num2
         return maxvalue
print( max 2(1 0,9))
print( max 2(1,9))
# write a function that returns
the largest of three values
# name: max3
# arguments: num1, num2, num3
# return: the largest value
def max3 (num1, num2, num3):
         max value = num1
        if num2 > maxvalue:
```

Max value (cont)

```
>       maxvalue = num2

   if num3 > maxvalue:
      maxvalue = num3

   return maxvalue
print(max3(3,5,9))
```

Decision Making/Conditional Statements:

```
if 3 < 2: #if statement must
compare two Booleans
  print ('3 is less than 2')
elif 4 < 2: #can have 0 or more
elif statements
  print ('4 is less than 2')
elif 5 < 2:
  print ('5 is less than 2')
else: #can have 0 or 1 else
statement at the end
  print ('none of the above are
True')
```

MATH

string+string	Combine
string - number	CRASH
number + number	ADDING
string*number	combine
string*string	CRASH
number*number	Multiply
string**string	CRASH
string**number	CRASH
number%number	remainder
number**number	Exponent
=	Equal
==	Compare
//	Divide anser in Interger
/	Divide anser in Floot

Symbol

==	Equal to...
!=	Not equal
<	Less than
>	More than
<=	Less than or equal
>=	More than or equal
%	Modulo/Find remainder

List

```
shoplist = ['son', 'goo',
'maaa', 'laaaa']
print( sho pli st[2])
" " "
item_n umber = 0
while item_n umber < len(sh -
opl ist):
         print ("list item:",
shopli st[ ite m_n umber])
         ite m_n umber = item_n -
umber + 1
" " "
out = 0
for item in shoplist:
        out = out + 1
                 #print ('list
item:' ,item)
print (out)
```

Number to Hex

```
user_number = input("please
enter a number: ")
number = int(us er_ number)
hex_string = ' '
while (number > 0):
         rem aider = number % 16
        if remaider == 10:
                 rem aider = 'A'
```


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Number to Hex (cont)

```
>     elif remaider == 11:
          remaider = 'B'
      elif remaider == 12:
          remaider = 'C'
      elif remaider == 13:
          remaider = 'D'
      elif remaider == 14:
          remaider = 'E'
      elif remaider == 15:
          remaider = 'F'

      hex_string = str(remaider) + str(hex_s-
tring)
      number = number // 16
print ("Hexadecimal string is 0x", hex_st-
ring)
```

Import list

```
import random
intlist = [1, 2, 3, 4, 5]
random_int = random.ch oic e(i -
ntlist)
print (intli st, ran dom _int)
fplist = [float(1), float(2),
float(3), float(4), float(5)]
random_fp = random.ch oic e(f -
plist)
print (fplis t,r and om_fp)
strlist = [str(' son'), str('h -
ack'), str('p om'), str('p -
hon')]
random_str = random.ch oic e(s -
trlist)
print (strli st, ran dom _str)
mylist = ['son', 'jan', 'feb',
'mar']
random_my = random.ch oic e(m -
ylist)
print (mylis t,r and om_my)
myvar1 = 1
```

Import list (cont)

```
> myvar2 = 2
myvar3 = 3
varlist = (myvar1, myvar2, myvar3)
random_var =random.choice(varlist)
print (varlist,random_var)
```

Palindrome

```
'''
Surawut Sartpant
Son 1002
Python Assign men t-P ali ndrome
'''
def isPali ndr ome (word):
        numlen = 0
        while numlen < long // 2
+ 1:
               if word[n umlen]
!= word[- num len-1]:
                        return
False
               elif word[n -
umlen] == 1:
                        return
True
                numlen += 1
        else:
                return True



while True:
       word = input( " Insert
your word: ")
       long = len(word)
       if word == " qui t":
                break
        else:
                print (long)

        numlen = 0
       if isPali ndr ome (word)
== True:
```

Palindrome (cont)

```
>         print (word,"it is a palindrome")
    else:
        print (word,"it is not a palindrom")
"""
output
 Insert your word: klk
3
klk it is a palindrome
 Insert your word: quit
 """
```


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