Cheatography

Python Sheet Cheat Sheet

by pca221 via cheatography.com/25815/cs/6936/

Words

Variable	The information that can change
String	The list of letters, numbers, symboles
Syntax	The computer's grammar
Boolean	The information that contains true or false
Modulo	Find the remainder

Math Operations

==	equal to	3 == 3
!=	not equal to	3 != 2
+	plus	3 + 2 = 5
-	minus	3 - 2 = 1
*	times	3 * 2 = 6
/	divide	9 / 3 = 3
%	the remainder from divide numbers	3 % 2 = 1
**	power	3 ** 2 = 9
<	less than	2 < 3
>	more than	3 > 2
<=	less than or equal to	2 <= 3 , 3 <= 3
>=	more than or equal to	3 >= 2 , 3 >= 3
//	divide by not included decimal point	2//2000 = 0

Calculate the Area of The Circle using def()

```
def areaofcircle(r):
        pi = 3.1415
        area = pir * 2)
         return area
user_r adius = float( inp -
ut( " Enter the Radius: "))
print( "The area of the circle
is ", areaof cir cle (us er_ -
rad ius))
```

How To Reverse

```
word = input("Enter the word: ")
index = 0
reverse = ''
while index < len(word):
        reverse = word[i ndex] +
reverse
        index = index + 1
print ("Re verse: ", reverse)
```

Calculating Fibonacci

```
fibonacci = [0,1]
print(0)
print(1)
while len(fi bon acci) < 50:
        number = fibona cci -
[le n(f ibo nacci) - 2] +
fibona cci [le n(f ibo nacci) -
1]
        fib ona cci.ex ten d([ -
num ber])
        pri nt( number)
```

Code & Functions

int()	convert the value into integer with no decimal place
print()	print the value
float()	change the value into number with decimal point
input()	use for want the user to type text in
len()	use for count the string
str()	change the value into string
import	import the code into the list
#	things after # will not define as a code
if/else	things after 'if' is the code that works when the variable is in the condition. If not, the code in the 'else' code will be worked.
elif	to define that there has an 'if/else' code in the other 'else' code
while	the code in 'while' section will be repeated along to the condition

How To Create A List

```
def createlist(quitword):
         print ("Keep entering
words to add to the list")
         print ("Quit when word
=", quitword)
         mylist = []
         while True:
                  use r_word =
input( " Please ente0r a list
item: ")
                if user_word ==
(quitw ord):
```

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Published 15th February, 2016.
Last updated 13th May, 2016.

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How To Create A List (cont)

```
>          return mylist
    duplicate = False
    for item in mylist:
      if item == user_word:
        duplicate = True
    if (duplicate == True):
      print ("Duplicate Word!")
    else:
      mylist.append(user_word)
userlist = createlist("stop")
print (userlist)
```

Check The Word is Palindrome or Not

```
def isPalindrome(user_word):
        length = len(us er_ -
word)
        while length >= 1:
                fir stn umber =
0
                fir stl etter =
user_w ord [fi rst number]
                las tletter =
user_w ord [length - 1]
               if firstl etter
== lastle tter:
                        fir -
stl etter == firstn umber + 1
                        las -
tletter == length - 1
                        length =
length - 2
                       if length
== 0 or 1:
                                -
return True
                else:
                        return
False


print ("Keep entering words to
check that the word is
palindrome or not.")
print ("Quit when word = quit")
```

Check The Word is Palindrome or Not (cont)

```
> while True:
   user_word = input("Please enter a word:
")
   if user_word == ("quit"):
      break
   else:
      length = len(user_word)
      print ("The length of the word is:",
length)
      if isPalindrome(user_word) == True:
         print (user_word, "is a palindrome")
      else:
         print (user_word, "is not a palind-
rome")
```

Guessing Game

```
import random
chance = 3
score = 0
while chance > 0:
        print ("Gu essing game")
        mylist = ['bowl -
ing ',' bad min ton ',' table
tennis ',' bas ket bal -
l', 'golf']
        print ("Wo rds :"
,mylist)
        ran domitem =
random.ch oic e(m ylist)
        use rguess = input( " -
Please guess a word: ")
       if userguess == random -
item:
                score = score +
100
                print ("That's
Correct! Score: ", score)
       elif userguess in mylist:
                chance = chance
- 1
                print ("Sorry,
wrong choice !")
                pri nt( " -
Chance: ", chance)
```

Guessing Game (cont)

```
>    else:
       chance = chance - 1
       print ("Sorry, that is not even in the
list!")
       print("Chance: ", chance)
if chance == 0:
   print ("Game Over! The word was ",
randomitem)
   print ("Final Score:", score)
```

Convert Integer into Binary

```
integer = input("Enter number:
")
integer = int(in teger)
remainder = integer
binary = ''
while integer != 0:
         rem ainder = integer % 2
         integer = int(in teger /
2)
         rem ain derstr =
str(re mai nder)
         binary = binary +
remain derstr
if integer == 0:
         index = 0
         binary2 = ''
         while index < len(bi -
nary):
                  binary2 =
binary [index] + binary2
                  index = index +
1
         pri nt( bin ary2)
```

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Math Operations

string + string	combine string together	("Stop ") + ("Working") = ("Stop Working")
string + number	crash	
number + number	add numbers together	(3) + (2) = (5)
string * string	crash	
string * number	combine string many times	("I") * (3) = ("III")
number * number	multiply numbers	(3) * (2) = (6)
string ** string	crash	
string ** number	crash	
number ** number	math exponents	(3) ** (2) = (9)

Loop & def()

```
#forloop
forlist = [1,2,3]
for item in forlist:
        pri nt( item)

#whileloop
whilelist = [1,2,3]
whilen = 0
while whilelen != len(wh ile -
list):
```

Loop & def() (cont)

```
>     print(whilelist[whilelen])
    whilelen = whilelen + 1
#show the length of the giving word
print ("Keep entering words to add to the
list")
print ("Quit when word = exit")
while True:
    user_word = input("Please enter a list
item: ")
    if user_word == ("exit"):
        break
    else:
        length = len(user_word)
        print ("The length of the words is",
length, ".")
#type the words in using loop
def theFunction():
    print ("Keep entering words to add to the
list")
    print ("Quit when word = stop")
    user_word = input("Please enter a list
item: ")
    while True:
        if user_word == ("stop"):
            break
        else:
            user_word = input("Please enter a
list item: ")
    return

theFunction()
#times the number using def()
def computethis(a1,b2):
    compute = a1 * b2
    return compute
a1 = int(input('First Number: '))
```

Loop & def() (cont)

```
> b2 = int(input('Second Number: '))
print(computethis(a1,b2))
#add stars to the word
def finalFunction(string):
    star = '*' + string + *'
    print(star)
    return
finalFunction("777")
```

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