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 = pi  (r * 2)
    return area
user_radius = float(input("Enter the Radius: "))
```

Calculate the Area of The Circle using def() (cont)

```
print("The area of the circle is ", areaofcircle(user_radius))
```

How To Reverse

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

Calculating Fibonacci

```
fibonacci = [0,1]
print(0)
print(1)
while len(fibonacci) < 50:
    number = fibonacci[len(fibonacci) - 2] + fibonacci[len(fibonacci) - 1]
    fibonacci.extend([number])
    print(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

Code & Functions (cont)

#	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:
        user_word = input("Please ente0r a list item: ")
        if user_word == (quitword):
            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)
```

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Check The Word is Palindrome or Not

```
def isPalindrome(user_word):
    length = len(user_word)
    while length >= 1:
        firstnumber = 0
        firstletter =
user_word[firstnumber]
        lastletter =
user_word[length - 1]
        if firstletter ==
lastletter:
            firstletter ==
firstnumber + 1
            lastletter == 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")
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 palindrome")
```

Guessing Game

```
import random
chance = 3
score = 0
while chance > 0:
    print ("Guessing game")
    mylist =
['bowling','badminton','table
tennis','basketball','golf']
    print ("Words:" ,mylist)
    randomitem =
random.choice(mylist)
    userguess = input("Please guess
a word: ")
    if userguess == randomitem:
        score = score + 100
        print ("That's Correct!
Score: ", score)
    elif userguess in mylist:
        chance = chance - 1
        print ("Sorry, wrong
choice!")
        print("Chance: ", chance)
    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(integer)
remainder = integer
binary = ''
while integer != 0:
    remainder = integer % 2
    integer = int(integer / 2)
    remainderstr = str(remainder)
    binary = binary +
remainderstr
if integer == 0:
    index = 0
    binary2 = ''
    while index < len(binary):
        binary2 = binary[index] +
binary2
        index = index + 1
    print(binary2)
```

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:
    print(item)

#whileloop
whilelist = [1,2,3]
whilelen = 0
while whilelen != len(whilelist):
    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()
```

Loop & def() (cont)

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