Nancy's Python Cheat Sheet

by Mnasnan (mnasnan) via cheatography.com/25754/cs/6873/

Naming Convention

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
- first+name

Symbol

==	Equal
!=	Not equal
>=	More than or equal
<=	Less than or equal
% (Madulo)	Find the remainder

Multiplication and Exponents

string * number	Combine that string
string* string	CRASH!
number * number	Multiply (Math)
string ** string	CRASH!
number ** number	Exponent (Math)
string ** number	CRASH!

Area of Triangle

```
def areaOfTriangle(base, hight) :
        return 0.5*base hight
user_base = float( inp ut( " Enter the base of the
triangle: "))
user_h eight = float( inp ut( " Enter the hight of
the triangle: "))
print ("The area of the triangle is", areaOf Tri -
ang le( use r_base, user_h eight))
def volume OfP ris m(area, high) :
        return area * high
user_p ris m_high = float( inp ut( " Enter the
hight of the prism: "))
print ("The volume of the prism is", volume OfP -
ris m(a rea OfT ria ngl e(u ser _base, user_h -
eight), user_p ris m_h igh))
```

Reverse Word

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

        while int(index) < len(word):
                reverse = word[i ndex] + (reverse)
                index = int(index) + 1
        print ("Re verse: ", reverse)
```

Sort fruit list

```
fruits = [] #an empty list
for number in range(5):
        use r_fruit = input( " Please enter a
fruit")
        fru its.ap pen d(u ser _fruit)
print ("Size of fruit list is", len(fr uits))
fruits.sort()
for fruit in fruits:
        print ("Fruit: ", fruit)
```

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Countdown Machine

```
number = int(input("What number do you want to
count down? "))
countd own _string = ' '
while number > 0:
        cou ntd own _number = countd own _string +
str(nu mber) + " "
        number = number - 1

print (count dow n_s tring)
```

Area of Circle

```
user_radius = input("What is a radius of a
circle?")
radius = float( use r_r adius)
pi = float( 3.1415)
area = pi*(radius*2)
print ("The area of the circle is", area)
```

Create List

```
create a function name: createList
argument: quitword
return: a list
def create Lis t(q uit word):
        mylist = [] #empty list
        while True: #loop forever
                use r_word = input( " Please enter
a list item: ")
               if user_word == quitword:
                        return mylist #returns the
list and exits the function
                dup lic ateword = False
               for item in mylist:
                       if user_word == item:
                                dup lic ateword =
True
               if (dupli cat eword == True):
                        print ("Du plicate Word!")
                else:
                        myl ist.ap pen d(u ser -
_word) #Adds the user_word to the end of the list
```

Create List (cont)

```
> userlist = createList('stop') #Function Call
print (userlist)
```

Function (Ex.)

```
def myprint2(text, decoration): #Text and
decoration is a parameter
        print (decor ation + str(text) + decora -
tion)
        return
myprin t2( " Hel lo", " +++ ++")
myprin t2( " Hel lo", " --- =-= -=")
myprin t2( " Hel lo", " <<< <<")
```

```
+++++Hello+++++
-=-=-=-=Hello-=-=-=-=
<<<<<Hello<<<<<
```

Palindrome

```
def isPalindrome(word):
        index = 0
        reverse = ''
        while int(index) < len(us er_ word):
                reverse = user_w ord [index] +
(reverse)
                index = int(index) + 1
       if user_word == reverse:
                return True
        else:
                return False
while True:
        use r_word = input( " Please enter a word:
")
       if user_word == " qui t":
                break

        pri nt( " Length of the", user_word, " -
is", len(us er_ word))

        Pal indrome = isPali ndr ome (us er_ word)
       if Palindrome == True:
                print (user_ word, "is a Palind -
rom e!")
        else:
```


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Palindrome (cont)

```
>       print (user_word, "is not a Palindrome")
```

Sort word per line

```
mystr = "Hello"
letter_num = 0
while letter_num < len(my str):
        print (mystr [le tte r_num])
        let ter_num = letter_num + 1
```

Convert decimal to binary

```
user_number = ' '
while user_n umber != ' 0 ' :
        use r_n umber = input ("Enter a number to
convert to binary ")
        number = int(us er_ number)
        bin ary _string = ' '
        while (number > 0):
                rem ainder = number%2
                bin ary _string = str(re mai nder)+
binary _string
                number = number//2
        print ("Binary string is", binary _st ring)
```

Area of Circle by Function

```
def areaOfCircle(r):
       pi = 3.1415
       area = pi * 2
        return area
user_r adius = input( " Enter the radius of the
circle: ")
radius = float( use r_r adius)
print( "The area of the circle is", areaOf Cir -
cle (ra dius))
```

Guess word game

```
import random
guesslist = ['grape', 'orange', 'chlor opl ast',
'ribos ome', 'lipst ick']
chance = 3
score = 0
print (guess list)
while chance != 0:
        ran dom _item = random.ch oic e(g ues -
slist)
        use r_input = input( " Please guess a
word: ")
       if user_input == random _item:
                print ("That's correc t!")
                score = score + 100
                print ("Sc ore :", score)
        else:
               if user_input not in guesslist:
                        print ("Sorry, that isn't
even in the list!")
                        chance = chance - 1
                        print ("Chance Remain -
ing :", chance)
                else:
                        print ("Sorry, wrong
choice !")
                        chance = chance - 1
                        print ("Chance Remain -
ing :", chance)
if chance == 0:
        print ("The word was", random _item)
        print ("The score is", score)
```

Convert binary to decimal

```
num = str(int(input("Enter a binary to convert to
decimal ")))
dec = int(num, 2)
print ("The decimal number is", dec)
```

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