

Function

| | |
|---------|---------------------------------------|
| print() | Display an information on the screen |
| int() | Change number to an integer |
| float() | Change number to an decimal number |
| input() | Ask for the information from the user |
| str() | A list of number, letter and symbols |
| len() | Length of the string |
| # | Comment |
| """ | Multiple Line Comment |

Reverse A Word

```
while True:
    word = input(" Please
enter a word")
    index = 0
    reverse = ''
#while int(index) < len(word):
# reverse = word[index] +
(reverse)
# index = int(index) + 1
for letter in word:
    reverse = letter +
reverse
print ("Re verse: ", reverse)
```

Countdown Code

```
user_number = input("Please enter a
number: ")
number = int(user_number)
countdown_string = ""
while number > 0:
countdown_string = countdown_string +
str(number)
number = number - 1
print (countdown_string)
```

List

```
'''SHOPPING_LIST=
['bags','shirts','pants']
list_num=0
while list_num < len(sh opp -
ing_list)
    pri nt( sho ppi ng_ -
lis t[l ist_num])
    lis t_num = list_num + 1
for item in in shopping lost:
    print (item)
```

Random

```
import random
# Create a list of integers
intlist = [1,2,3,4]
random_int = random.ch oic e(i -
ntlist)
print (rando m_int) #print the
entire list and the random item
# Create a list of floating
point numbers
fplist = [0.2,0.3,0.4]
random_fp = random.ch oic e(f -
plist)
print (rando m_fp) #print the
entire list and the random item
# Create a list of strings
strlist = ("AB C","D EF", " -
GHI ")
random_str = random.ch oic e(s -
trlist)
print (rando m_str) #print the
entire list and the random item
# Create a list of integers and
floating point numbers and
strings
mylist = (2,3,0.4, " Hel lo")
random_item = random.ch oic e -
e(m ylist)
print (rando m_item) #print the
entire list and the random item
# Create a list of the following
variables
myvar1 = 1
myvar2 = 2
myvar3 = 3
varlist = [myvar1, myvar2,
myvar3]
```

Random (cont)

```
> random_var = random.choice(varlist)
print (random_var) #print the entire list and
the random item
```

Operations

| | |
|----|---------------------------------|
| == | equal to |
| != | no equal to |
| < | less than |
| > | more than |
| <= | less than or equal |
| % | Modulo, Calculate for Remainder |
| + | Add |
| - | Subtract |
| * | Multiplication |
| / | Division |
| ** | Exponent |

Convert To Hex

```
while True:
    use_r_n_umber =
input( " Please enter your
number: ")
    number = int(us er_ -
number)
    hex _string = ''
    while (number > 0 ):
        rem ainder =
number % 16
        if remainder ==
10:
            hex -
_string = " A" + hex_string
            elif remainder ==
11:
            hex -
_string = " B" + hex_string
            elif remainder ==
12:
            hex -
_string = " C" + hex_string
            elif remainder ==
13:
            hex -
_string = " D" + hex_string
            elif remainder ==
14:
            hex -
_string = " E" + hex_string
            elif remainder ==
15:
            hex -
_string = " F" + hex_string
```



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Convert To Hex (cont)

```
> elif remainder < 10:
    hex_string = str(remainder) +
hex_string
    number = number // 16
    print ("Hexadecimal string is 0x"+ hex_string)
```

Area Of The Circle Code

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

Upper and Lower Case

```
name = "one two"

print (name.upper()) → ONE TWO
print (name.lower()) → one two
print (name.capitalize()) → One two
print (name.title()) → One Two
```

Vocabulary

| | |
|----------------|--|
| Variable | reserved memory locations to store values. This means that when you create a variable you reserve some space in memory |
| String | A list of character such as number, letter and symbols |
| Boolean | True/False |
| Integer | Whole Number or Counting |
| Number | Number |
| Syntax | Grammar of Python |
| Floating Point | Number in Decimal |

Example Of Codes

```
2 – integer
2.5 – floating point
Print ("Hello") – string
mystring = 123 – variable
Print (mystr,"Hi",2,1.0) -- commas
mystr = "Hi"
mystr ← variable name
"Hi" ← value that can be change
print (int(1.5)) → 1
print (int("2")) → 2
print (float(1)) → 1.0
Modulo/Remainder %
print (4%2) → 0
print (30%7) → 2
```

Multiplication And String

```
String * Number
Ex. String * 5 = String String
String String String
String * String = Crash !
Number * Number = Multiply
(Math)
Ex. 5 * 4 = 20
String ** String = CRASH!
Number ** Number = Exponent
(Math)
Ex. 5**2 = 25
String ** Number = CRASH!
```

Guessing Game

```
import random
game_over = 1
chances = 5
score = 0
word = ['Dog' , 'C at' , 'F -
ish ',' Pig ',' Ele phant']
random_word = random.ch oic -
e(word)
while game_over != 0:
    print ("Wo rd: " , (w -
ord))
```

Guessing Game (cont)

```
> guess_word = input("Guess a word: ")

if guess_word == random_word:
    print ("That's Correct Guess!")
    print ("-----")
    score = score + 100
    print ("Score:",(score))
    random_word = random.choice(word)
else:
    if guess_word != random_word:
        chances = chances - 1
        print ("Chances Remaining:",c-
hances)

    if guess_word in word:
        print ("Sorry,Wrong Choice!")
        print ("-----")
    else:
        print ("Sorry That is not even in
the list")
        print ("-----")

    if chances == 0:
        game_over = 0
        print ("Game Over!")
        print ("The word was",(random_-
word))
        print ("Final Score:",(score))
```