

Function

str()	make the number or symbol
input()	to get information from the user
print()	to show some information 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 = 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
```



areaofEllipse (cont)

```
> 62.839999999999996
```

DEFINATION

```
def printDefinition(word):
    if word == " variable":
        print ("")
        A variable is the
the thing that can be changed.
        " " ")
    elif word == " parameter ":
        print ("")
        A parameter is
the limiting factor
        " " ")
    elif word == " argument ":
        print ("")
        An argument is
the identifier that you give to
function
        " " ")
    elif word == " string ":
        print ("")
        A string is
something that can be repeated
by the number.
        " " ")
    elif word == " function call":
        print ("")
        A function call
is the word you use to reuse the
function.
        " " ")
    else:
        print ("unknown
word")
while True:
    user_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[letter_num] + reverse
    letter_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(user_number)
binary_string = ''
while (number > 0):
    remainder = number % 2
    binary_string = str(remainder) + str(binary_string)
    number = number // 2
print("Binary string is", binary_string)
```

Countdown

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

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 Float

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 remainder == 10:
        rem aider = 'A'
```

Number to Hex (cont)

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

hex_string = str(remainder) + 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.choice(intlist)
print (intlist, random_int)
fplist = [float(1), float(2),
float(3), float(4), float(5)]
random_fp = random.choice(fplist)
print (fplist, random_fp)
strlist = [str('son'), str('h-
ack'), str('pom'), str('p-
hon')]
random_str = random.choice(strlist)
print (strlist, random_str)
mylist = ['son', 'jan', 'feb',
'mar']
random_my = random.choice(mylist)
print (mylist, random_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 ment-Palindrome
'''
def isPalindrome (word):
    numlen = 0
    while numlen < long // 2
+ 1:
        if word[numlen]
!= word[- num len-1]:
            return
False
        elif word[num -
umlen] == 1:
            return
True
        numlen += 1
    else:
        return True

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

    numlen = 0
    if isPalindrome (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
''''
```

