Function

str()	make the number or symbol
input()	to get infomation from the user
print()	to show some infomation 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',
'anything']
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)
letternumber = input("what is
letter number? ")
mynumber = int(letternumber)-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.',
'Patter','Tim','Lily']
random_item =
random.choice(mylist)
while chance > 0:
    print (mylist)

    print ("Chances Remaining
=",chance)
    guess = input("Guess a word
from the above :")

    if guess == random_item:
        score = score + 100
        print ("That's
correct!","The score is :",score)
        random_item =
random.choice(mylist)
    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",random_item)
        print ("Final score:
",score)
```

write alltheoutcome

```
mystring = ""
count = 0
while count < 5:
    mystring = mystring +
str(count)
    print (mystring)
    count = count + 1
OUTCOMEIS
0
01
012
0123
01234
```

areaofEllipse

```
def areaofEllipse(radius1,
radius2):
    pi = 3.142
    area = pi radius1 radius2
    return area
ra1 = int(input("put in the radius
1"))
ra2 = int(input("put in the radius
2"))
print (areaofEllipse(ra1, ra2))
OUTPUT
put in the radius 14
put in the radius 25
```

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Page 1 of 4.

areaofEllipse (cont)

```
62.83999999999996
```

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 =
countdown_string + str(number)
    number = number - 1
print (countdown_string)
```

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Page 2 of 4.

Find Area of Circle

```
def aofc(r):
    if r <= 0:
        return "Error: radius <=0"
    pi = 3.1415
    area = pi  r * 2
    return area
user_radius = input("enter the
radius: ")
radius = float(user_radius)
print("The area of the circle is",
aofc(radius))
```

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):
    maxvalue = num1

    if num2 > num1:
        maxvalue = num2
    return maxvalue
print(max2(10,9))
print(max2(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):
    maxvalue = 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 Floot

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(shoplist[2])
"""
item_number = 0
while item_number <
len(shoplist):
    print ("list item:",
shoplist[item_number])
    item_number = item_number + 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(user_number)
hex_string = ' '
while (number > 0):
    remaider = number % 16
    if remaider == 10:
        remaider = 'A'
```

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Page 3 of 4.

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Number to Hex (cont)

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

    hex_string = str(remaider) +
str(hex_string)
    number = number // 16
print ("Hexadecimal string is 0x",
hex_string)
```

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('hack'), str('pom'),
str('phon')]
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 Assignment-Palindrome
'''
def isPalindrome(word):
    numlen = 0
    while numlen < long // 2 + 1:
        if word[numlen] !=
word[-numlen-1]:
            return False
        elif word[numlen] == 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
 """
```