

Addition

string + String	combine together
string + number	crash
number + number	math - addition

Functions

print()	displays information on the screen
float()	change number to be decimal number
int()	change number to number integer
int()	gain information
str()	a list of number, letter and symbols

Code

```
name = " Natnicha Wangchinda "
print (name.upper())
print (name.lower())
print (name.capitalize())
print (name.title())
```

Counts down

```
#create a program that recieves a
number from the user and count down
from that number on the same line
#recieve the number from the user
as a string
user_number = input ("enter
number")
#convert the user number to an
integer
number = int(user_number)
#setupthe countdown string
countdown_string = ""
while number > 0:
```

Counts down (cont)

```
#add the number to the string
#subtract 1 from the number
```

code

```
#write a program the converts a
number to binary
#get a number from the user
user_number = input("Please enter
a number: ")
#convert to integer
number = int(user_number)
binary_string = ''
while (number > 0):#the numbrer is
grater than 0)
    remainder = number % 2
    binary_string =
str(remainder) + binary_string
    number = number // 2
    print(number)
#print (number)
#after the loop print the binary
string
print ("Binary string is",
binary_string)
#expected output - 5 = 101
#expected output - 3 = 11
#expected output - 2 = 10
```

Multiplication and Exponents

string * string	crash
string * number	combine that string
number * number	math - multiply
string ** string	crash
number ** number	math - exponent
string ** number	crash

code

```
while True:
    user_radius = input("What is
the radius?")
    radius = float(user_radius)
    pi = 3.1415
    area = pi radius * 2
    print ("The area of the circle
is", area)
```

code

```
mystring = "hello"
print (mystring)
firstname = input ("What is your
first name?")
lastname = input ("What is your
last name?")
fullname = firstname + " " +
lastname
print (fullname)
letternumber = int(input( "What is
letter number? "))
if letternumber >len(fullname):
    print ( " invalid letter
number, try again! " )
else:
    letter =
(fullname[letternumber] )
    print ( letter )
    numberletter = int(input( "
How many times to print letter? ")
    if numberletter > 100:
        print ( " Too many letters
to print! ")
    else:
        print ( letter *
numberletter )
```

code

```
def createList(quitword):
    mylist = []
    while True :
        item = input("Please enter
a list item: ")
        if (item == quitword) :
            return (mylist)
        duplicateword = False
        for myvar in mylist:
            if myvar == item:
                duplicateword =
True
        if duplicateword == True :
            print('Duplicate
word!')
        else:
            mylist.append (item)
    mylist = createList("stop")
    print (mylist)
```

Vocabulary

Variable	hold a value and can be change
string	a list of character such as number,letter, and symbols
integer number	whole number or counting number
float number	the number in decimal
syntax	gramma or structure of language
value	the number os string can be store in valuable

Vocabulary (cont)

module	the text for storing for python code
input	gain information
print	to show information on the screen
syntax error	make impossible to the parse error

code

```
# Create a program that recieve a
number from the user
# from that number on the same line
#recieve the number from the user
as a string
user_number = input
#convert the user number to an
integer
number = int(user_number)
#setup the countdown string
countdown_string = ""
while number > ():#the number is
greater than 0)
    remainder =
    print (number)
    #binary_string =
#output should look like this
# if the user enters 5:
# 5 4 3 2 1
print (countdown_string)
```

Math

+	plus
-	minus
*	multiple
/	divide
%	remainder (4%2)-> 0
**	exponent 2**3->2^3
==	equal to
!=	no equal to
<	less than
>	more than
<=	less than or equal to
>=	more than or equal to

