# Tool box:

**Variables:**

Type:

1. String: “hello world!!”
2. Float: the number with decimal spot
3. Integer: the number without decimal spot

**Mod:**

The Python modulo operator calculates the remainder of dividing two values. This operator is represented by the percentage sign (%). The syntax for the modulo operator is: number1 % number2. The first number is divided by the second then the remainder is returned

## **1 for loop**

Example 1:

For i in range(1,1000):

XXX

Example 2:

For element in list\_1:

XXXX

## **2. while (XXX)**

Example 1:

While(Is\_A\_Girl()==TRUE):

XXXX

## **3. if XXX:**

XXX

Elif XXX:

XXX

Else:

XXX

If “XXX” in “XXXX”: “XXXX” is a string. This if statement means check “XXX” is included in “XXXX”

If “abc” in “abcdefg”: True

If “ab” in “acbdefg”: Failed.

## **list: list is your school bag, you can put everything inside.**

List.append(XXX)

List.extend(XXX) XXX should be iterable

List.pop(index)

List.push(index)

List.count(value)

List.remove(value)

List.reverse()

List.sort()

## **5. a = input(“XXX”)**

Note: the type of a is a string

## **6 print(XXX)**

Print out the value of XXX

## **7.string**

String.capitalize()

String.endswith(suffix) -> bool

String.find(sub) -> return the lowest index in S where substring sub is found

String.isdigit()->bool

String.islower()->bool

String.isspace()->bool

String.join(iterable)

Return a string which is the concatenation of the strings in the iterable. The separator between elements is S

String.lstrip()

Return a copy of the strings S with leading white space removed. If chars is given and not None, remove characters in chars instead

String.replace(old, new)->str

String.split(sep)->list of strings

String.splitlines()->list of strings

String.statswith(XXX)->bool

String.strip([chars])

Return a copy of the string S with leading and trailing whitespace removed if chars is given and not None remove characters in chars instead

## **8.function:**

def XXX(a,b,c):

XXXX

Return XX

**9．Dictionary: is a hashable iterable type.**

1. {key:value}

Example:

a = {“Jack” : 89, “Tim” : 29, “Marry” : 100, “Lisa” : 79, “Gos” : 59“Timmy” : 83, “Julia” : 69}

For loop:

For k, v in a.items():

Print(k)

Print(v)

1. Break:

Terminate the loop (while, for)

While(1):

XXXXX

If XX:

break

XXXXX

1. File:
2. Open(“xxxx.txt”, “r/w/a+”) as f:

r : read only

W: enable write

A+: append student msg into the file.

1. F.Read() => all data type:string
2. F.readlines => read data line by line and return a list .