Identity operator:

* It is used to compare identity of 2 objects.
* It has 2 identity oprators: is, is not

Ex:

a=[1,2,3]  
b=[1,2,3]  
c=a  
print(a is b)

Output:

False

a=[1,2,3]  
b=[1,2,3]  
c=a  
print(a is not b)

Output:

True

Membership operator:

* It is used to check if value is present in a sequence or not.
* There are 2 membership operator: in, not in

Ex:

fruits=["apple","banana","mango"]  
print("banana" in fruits)

Output:

True

fruits=["apple","banana","mango"]  
print("banana" not in fruits)

Output:

False

Bitwise operator:

* It is use to do operations on binary representation of numbers.
* Bitwise operators are: and(&), or(|), not(~), xor(^), left shift(<<), right shift(>>)

Ex:

a=5   
b=3   
print(a&b)  
print(a|b)  
print(a^b)  
print(~a)  
print(a>>1)  
print(a<<1)

Output:

1

7

6

-6

2

10

LIST:

* It is a collection of items that can be of any data type.
* List is changeable after creating a list.
* List can have duplicate values(repeated values).
* In list e can create,insert,append,sort,reverse,remove,delete,pop,extend,clear,find length,range,slicing

Ex:

Creating list:

mylist=[1,2,3,4,5]  
print(mylist)

[1, 2, 3, 4, 5]

Index method:

mylist=[1,2,3,4,5]  
print(mylist[0])

1

Range:

mylist=[1,2,3,4,5]  
print(mylist[1:3])

[2, 3]

Insert:

mylist=[1,2,3,4,5]  
mylist.insert(2,7)  
print(mylist)

[1, 2, 7, 3, 4, 5]

Append:

mylist=[1,2,3,4,5]  
mylist.append(7)  
print(mylist)

[1, 2, 3, 4, 5, 7]

Slicing:

mylist=[1,2,3,4,5]  
list=mylist[:]  
print(mylist)

[1, 2, 3, 4, 5]

Extend:

mylist=[1,2,3,4,5]  
list=["a","b","c"]  
mylist.extend(list)  
print(mylist)

[1, 2, 3, 4, 5, 'a', 'b', 'c']

Remove:

mylist=[1,2,3,4,5]  
mylist.remove(3)  
print(mylist)

[1, 2, 4, 5]

Pop:

mylist=[1,2,3,4,5]  
mylist.pop(1)  
print(mylist)

[1, 3, 4, 5]

Clear:

mylist=[1,2,3,4,5]  
mylist.clear()  
print(mylist)

[]

Copy:

mylist=[1,2,3,4,5]  
list=mylist.copy()  
print(list)

[1, 2, 3, 4, 5]

Sort:

mylist=[5,4,1,6,2,3]  
mylist.sort()  
print(mylist)

[1, 2, 3, 4, 5, 6]

Reverse(Descending order):

mylist=[5,4,1,6,2,3]  
mylist.sort(reverse=True)  
print(mylist)

[6, 5, 4, 3, 2, 1]

Creating a list using FOR:

list=["apple","banana","grapes"]  
for i in list:  
 print(i)

apple

banana

grapes

List using Range:

list=["apple","banana","grapes"]  
for i in range(len(list)):  
 i=i+1

apple

banana

grapes

List using While:

list=["apple","banana","grapes"]  
i=0  
while i<len(list):  
 print(list[i])  
 i=i+1

apple

banana

grapes

List Comprehensions:

* Way to create list using list comprehensions

Ex:

fruits=["apple","banana","grapes"]  
newlist=[]  
for i in fruits:  
 if "a"in i:  
 newlist.append(i)  
print("newlist:",newlist)

newlist: ['apple', 'banana', 'grapes']