thislist = ["apple", "banana"]

its changble

type(mylist) ==> <class 'list'>

**construct list**

thislist = list(("apple", "banana", "cherry")) ==> note the double round-brackets

**Access List Items**

thislist[-1]

thislist[2:5]

thislist[:4] start at the first item

thislist[2:] go on to the end of the list

thislist[-4:-1] from 4 to end till one to last of list

## "apple" in thislist 🡺 Check if Item Exists

# **Change List Items**

* thislist[1] = "blackcurrant"
* thislist[1:3] = ["blackcurrant", "watermelon"] => change 1,2 value in list
* thislist[1:3] = ["watermelon"] => Change the second and third value by replacing it with one value
* thislist.insert(2, "watermelon") => insert a new list item, without replacing any of the existing values
* thislist.append("orange") => add an item to the end of the list

# **Remove List Items**

thislist.remove("banana")

thislist.pop(1) ==> the pop() method removes the last item = del thislist[1]

del thislist => delete the list completely.

thislist.clear() => list still remains, but it has no content.

# **Loop Lists**

* Loop Through a List

for x in thislist:  
  print(x)

* loop through the index number

for i in range(len(thislist)):  
  print(thislist[i])

## Comprehension

newlist = [expression for item in iterable if condition == True]

example:

fruits = ["apple", "banana", "cherry", "kiwi", "mango"]  
  
newlist = [x for x in fruits if "a" in x]

Only accept items that are not "apple":

newlist = [x for x in fruits if x != "apple"]

Accept only numbers lower than 5:

newlist = [x for x in range(10) if x < 5]

Set the values in the new list to upper case:

newlist = [x.upper() for x in fruits]

Set all values in the new list to 'hello':

newlist = ['hello' for x in fruits]

Return "orange" instead of "banana":

newlist = [x if x != "banana" else "orange" for x in fruits]

# **Sort Lists**

Sort the list alphabetically:

thislist = ["orange", "mango", "kiwi", "pineapple", "banana"]  
thislist.sort()

Sort the list numerically:

thislist = [100, 50, 65, 82, 23]  
thislist.sort()

Sort the list descending:  
thislist.sort(reverse = True)

## Customize Sort Function

Sort the list based on how close the number is to 50:

def myfunc(n):  
  return abs(n - 50)  
  
thislist = [100, 50, 65, 82, 23]  
thislist.sort(key = myfunc)  
print(thislist)

Perform a case-insensitive sort of the list:

thislist = ["banana", "Orange", "Kiwi", "cherry"]  
thislist.sort(key = str.lower)

Reverse the order of the list items:

thislist = ["banana", "Orange", "Kiwi", "cherry"]  
thislist.reverse()

# **Copy Lists**

Make a copy of a list with the copy() method:

thislist = ["apple", "banana", "cherry"]  
mylist = thislist.copy()

Make a copy of a list with the list() method:

thislist = ["apple", "banana", "cherry"]  
mylist = list(thislist)

# **Join Lists**

list3 = list1 + list2

for x in list2:  
  list1.append(x)

extend: append elements from another list to the current list

thislist = ["apple", "banana", "cherry"]  
tropical = ["mango", "pineapple", "papaya"]  
thislist.extend(tropical)