```
# Square brackets are used to make lists:

'''mylist = ["apple", "banana", "cherry"]
print(mylist)

mylist2 = [1, 2, 3, 4, 5]
print(mylist2)

mysubject = ["IntoProg", "CCNA", "Netw", "CS", "CS", "CCNA"]
print(mysubject)


#Lists Allow duplicate value:

mylist = ["apple", "banana", "cherry", "apple", "cherry"]
print(mylist)
mylist2 = [1, 2, 3, 4, 5, 5, 5, 5]
print(mylist2)'''

#Lists length:

'''x = "Hello"
mylist = ["apple", "banana", "cherry"]
print(len(mylist))
print(len(x))

mylist2 = [1, 2, 3, 4, 5, 5, 5, 5]
print(len(mylist2))'''


#List items can be of any data type:

'''list1 = ["apple", "banana", "cherry"]
list2 = [1, 5, 9, 3]
list3 = [3.4, 2.5, 3.3]
print(list1)
print(list2)
print(list3)
print(type(list3[2]))
print(type(list3))
#print(list1, list2, list3)
#print(type(list1), type(list2), type(list3))
#print(type(list1[0]), type(list2[2]), type(list3[0]))'''

#A list with strings, integers and boolean values:

'''list1 = ["abc", 34, True, 40, "male"]
print(list1)

#Type of lis

mylist = ["apple", ["banana", "cherry"]]
print(mylist)'''

#The list() Constructor

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

#Access Items
```

```
'''thislist = ["apple", "banana", "cherry"]
print(thislist[0])


list1 = ["abc", 34, True, 40, "male"]
l = [1, 2, 3, 4, 5, 6, 6, 9, 5, 6, 2, 4]
print(l)
l.sort()
print(l)
print(l[0])
#print(list1[-1])
#print(type(list1[-1]))'''
#Negative Indexing

'''thislist = ["apple", "banana", "cherry"]
print(thislist[-1])'''


#Range of list
'''thislist = ["apple", "banana", "cherry", "orange", "kiwi",
"melon", "mango"]
print(thislist[0:5])

thislist = ["apple", "banana", "cherry", "orange", "kiwi", "melon",
"mango"]
print(thislist[1:4])'''

#Range of Negative Indexes

'''x = "hello"
print(x[0:12])
thislist = ["apple", "banana", "cherry", "orange", "kiwi", "melon",
"mango"]
print(thislist[1:12])'''

#Check if Item Exists

'''thislist = ["apple", "banana", "cherry"]
if "banana" in thislist:
  print("Yes, 'this fruit' is in the fruits list")

newlist = ["apple",  "banana", "cherry", "orange", "kiwi", "mango"]

if 6 in newlist:
    print(" yes, this value does exit")

if 6 not in newlist:
    print(" No, this value does not exit")'''

#Change the value
'''thislist = ["apple", "banana", "cherry", "orange", "kiwi",
"mango"]
print(thislist)
thislist[-1] = "kiwi"
print(thislist)'''

#Change a Range of Item Values

'''thislist = ["apple", "banana", "cherry", "orange", "kiwi",
"mango"]
```

```
print(thislist)
thislist[-1:-5] = ["blackcurrant", "watermelon", "apple"]
print(thislist)'''



#If you insert more items than you replace, the new items
# will be inserted where you specified, and the remaining items will
move accordingly:
'''thislist = ["apple", "banana", "cherry"]
thislist[1:2] = ["blackcurrant", "watermelon"]
print(thislist)'''

#Insert "watermelon" as the third item:


'''thislist = ["apple", "banana", "cherry"]
print(thislist)


thislist.append(1)
print(thislist)

thislist.insert(3, "mango")

print(thislist)
#numlist = [1,2, 3, 4, 5, 5, 6, 6, 20, 30, 40, 50, 60] add 70 at
index 5
#numlist = [1,2, 3, 4, 5, 5, 6, 6, 20, 30, 40, 50, 60] add 70 at the
end of list'''
'''thislist.append("watermelon")
print(thislist)
thislist.insert(0, "melon")
print(thislist)'''

'''numlist = [1,2, 3, 4, 5, 5, 6, 6, 20, 30, 40, 50, 60]
list1 = ["apple", "banana", "cherry"]
print(list1)
list2 = ["cherry", "orange", "kiwi", "mango"]
print(list2)
list1.extend(list2)
print(list1)

list2.extend(list1)
print(list2)
numlist.extend(list2)

print(numlist)'''

'''numlist = [1,2, 3, 4, 5, 5, 6, 6, 20, 30, 40, 50, 60]
numlist.remove(5)
print(numlist)

numlist.pop(8)
print(numlist)

numlist.pop()
print(numlist)

del numlist[0]
print(numlist)
```

```
del numlist
print(numlist)'''

'''list1.remove("cherry")
print(list1)
list1.remove("kiwi")
print(list1)
list1.pop()
print(list1)

list1.pop(1)
print(list1)

list1.clear()
print(list1)'''

'''list2 = ["cherry", "orange", "kiwi", "mango"]
print(list2)
del list2[3]
print(list2)

del list2
print(list2)'''

#Remove Specified Item:

'''thislist = ["apple", "banana", "cherry"]
print(thislist)
thislist.remove("banana")
print(thislist)'''

#Remove Specified Index:
'''thislist = ["apple", "banana", "cherry"]
thislist.pop()
print(thislist)

del thislist[1]
print(thislist)

thislist.clear()
print(thislist)
thislist = ["apple", "banana", "cherry"]
print(thislist)

del thislist'''



#Looping through list
'''list2 = ["cherry", "orange", "kiwi", "mango"]
thislist = ["apple", "banana", "cherry"]
for x in thislist:
  print(x)
list2.append(x)

print(list2)

thislist = ["apple", "banana", "cherry"]
[print(x) for x in thislist]'''
```

```
#Sort List Alphanumerically

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


#Sort the list numerically:

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

thislist.reverse()
print(thislist)
#Sort the list descending:
thislist = ["orange", "mango", "kiwi", "pineapple", "banana"]
thislist.sort(reverse = True)
print(thislist)

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

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


thislist = [100, 50, 65, 82, 23]

thislist.reverse()
print(thislist)'''


'''newlist = [12, 11, 34, 223, 44,33, 66, 76, 55]
print(newlist)
newlist.reverse()
print(newlist)
newlist.sort()
print(newlist)
newlist.reverse()
print(newlist)'''

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

'''thislist = ["apple", "banana", "cherry"]
mylist = thislist.copy()
print(thislist)
print(mylist)
mylist.append("fruit")
print(mylist)
thislist.remove("apple")

print(thislist)
print(mylist)
#Join Two Lists'''

'''list1 = [4, 5, 6]
list2 = [1, 2, 3]
```

```
list3 = list1 + list2
print(list3)'''



list1 = ["a", "b" , "c"]
list2 = [1, 2, 3]
list3 = list2 + list1 + list1

print(list3)
```