

1.Calculate square of all numbers between 0-10 using list comprehensions

In [1]: `Square=[x**2 for x in range(10)]`

In [2]: `Square`

Out[2]: `[0, 1, 4, 9, 16, 25, 36, 49, 64, 81]`

2.Multiply whole list by 10

In [4]: `x=[1,2,3,4,5,6,7,8,9]
y=[i*10 for i in x]
print(y)`

`[10, 20, 30, 40, 50, 60, 70, 80, 90]`

3.Extract numbers from a string using list comprehension

In [10]: `x = "iam 29 years old and born on 21 december 1992"
print(x)
numbers = [int(i)for i in x.split() if i.isdigit()]
print(numbers)`

`iam 29 years old and born on 21 december 1992
[29, 21, 1992]`

4.Write the program to remove the duplicate element of the list.

In [12]: `l=[1,3,4,5,1,7,4,5,2,7,8,9,8]
l1=[]
for i in l:
 if i not in l1:
 l1.append(i)
print(l1)`

`[1, 3, 4, 5, 7, 2, 8, 9]`

5.Write a program to find the sum of the element in the list.

In [13]: `tot=0
l=[1,2,3,4,5,6]
for i in range(0,len(l)):
 tot=tot+l[i]
print(tot)`

`21`

6.Write the program to find the lists consist of at least one common element.

In [19]: `l1=[1,2,3,4,5]
l2=[9,8,10]
flag=0
for i in l2:
 if i in l1:
 flag=1
 if flag==1:
 print("True")
 else:
 print("False")`

`False
False
False`

In []: