CO1 PROGRAMS

2. Display future leap years from current year to a final year entered by user.

s=int(input("enter start year:"))

e=int(input("enter end year:"))

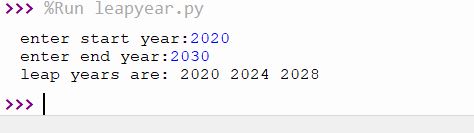
if(s<e):

print("leap years are:",end=" ")

for i in range(s,e):

if i%4==0 and i%100!=0:

print(i,end=" ")



3.**List comprehensions:**

* **Generate positive list of numbers from a given list of integers**

list1 =[-10,20,35,-67,70]

re=[num for num in list1 if num>=0]

print(re)

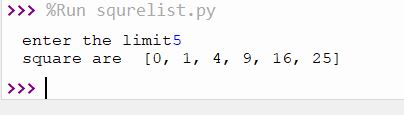


* **Square of N number**

n=int(input("enter the limit"))

l=[i\*\*2 for i in range(0,n+1)]

print("square are ",l)



* **Form a list of vowels selected from a given word**

string=str(input("enter the string"))

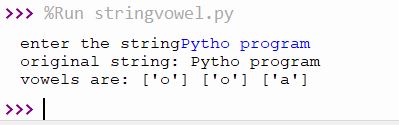
print("original string:",string)

print("vowels are:",end=" ")

for i in string:

if i in 'aeiouAEIOU':

print([i],end=" ")



* **List ordinal value of each element of a word (Hint: use ord() to get ordinal values)**

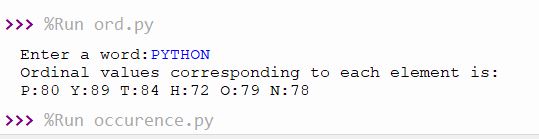
w=input("Enter a word:")

print("Ordinal values corresponding to each element is:")

for i in w:

print(i,end=":")

print(ord(i),end=" ")



**4. Count the occurrences of each word in a line of text.**

str1 = input("Enter a string : ")

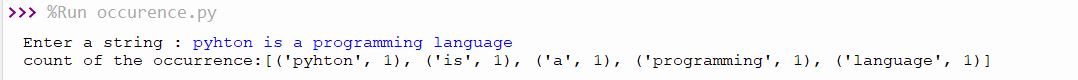
wordlist = str1.split()

count= []

for w in wordlist:

count.append(wordlist.count(w))

print("count of the occurrence:" + str(list(zip(wordlist, count))))



**5. Prompt the user for a list of integers. For all values greater than 100, store ‘over’ instead**

n=[]

s=int(input("Enter a limit:"))

print("Enter {s} values")

for i in range(0,s):

n.append(int(input()))

print("\nThe list after assinging:\n")

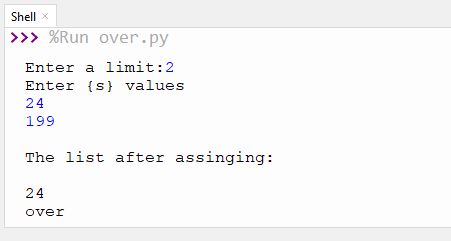
for i in range(0,len(n)):

if n[i]>=100:

print("over")

else:

print(n[i])

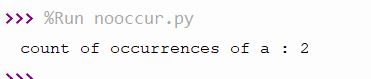


**6. Store a list of first names. Count the occurrences of ‘a’ within the list**

a\_list = ["a", "b", "a"]

occ = a\_list.count("a")

print("count of occurrences of a :",occ)



7. **Enter 2 lists of integers. Check (a) Whether list are of same length (b) whether list sums to same value (c) whether any value occur in both**

lst=[1,3,5,7,9,11,34]

lst1=[5,13,45,7,20,65,1]

s=int(0)

c=int(0)

if len(lst)==len(lst1):

print("Lists are of same length")

else:

print("Lists have different length")

for i in range(0,len(lst) and len(lst1)):

s=s+lst[i]

c=c+lst1[i]

if(s==c):

print("equal sum")

else:

print("not same sum")

print("Elements that matched are:")

l=[]

for i in range(0,len(lst)):

for j in range(0,len(lst1)):

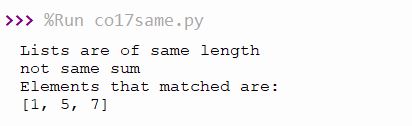
if lst[i]==lst1[j]:

l.append(lst[i] and lst1[j])

else:

continue

print(l)



8.**Get a string from an input string where all occurrences of first character replaced with ‘$’, except first character. [eg: onion -> oni$n]**

str1="malayalam"

char = str1[0]

str1 = str1.replace(char, '$')

str1 = char + str1[1:]

print(str1)

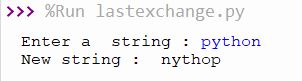


**9.Create a string from given string where first and last characters exchanged. [eg: python -> nythop]**

str = input("Enter a string : ")

new\_str = str[-1:] +str[1:-1] + str[:1]

print("New string : ",new\_str)

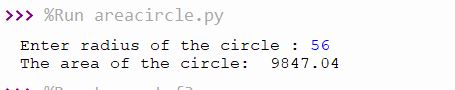


**10.Accept the radius from user and find area of circle.**

r = float(input ("Enter radius of the circle : "))

result=3.14 \* r\*\*2

print ("The area of the circle: ", result)



**11. Find biggest of 3 numbers entered**

x = int(input("Enter 1st number: "))

y = int(input("Enter 2nd number: "))

z = int(input("Enter 3rd number: "))

if (x > y) and (x > z):

largest = x

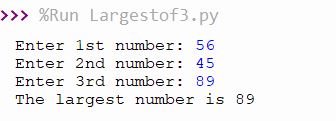
elif (y > x) and (y > z):

largest = y

else:

largest = z

print("The largest number is",largest)

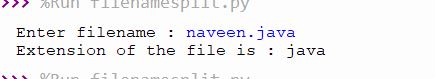


**12.Accept a file name from user and print extension of that**

str= input("Enter filename : ")

file=str.split(".")

print("Extension of the file is : " + file[-1])



**13.Create a list of colors from comma-separated color names entered by user.Display first and last colors.**

a=[]

for i in range(3):

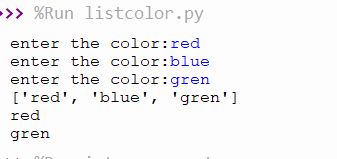
b=input("enter the color:")

a.append(b)

print(a)

print(a[0])

print(a[2])



**14.Accept an integer n and compute n+nn+nnn**

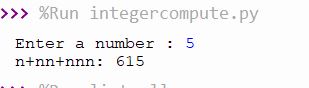
n = int(input("Enter a number : "))

x = int("%s" % n)

y = int("%s%s" %(n,n))

z = int("%s%s%s" %(n,n,n))

print ("n+nn+nnn:",x+y+z)

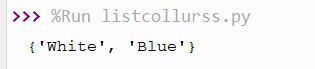


**15.Print out all colors from color-list1 not contained in color-list2.**

color\_list\_1 = set(["White", "pink", "Red","Blue"])

color\_list\_2 = set(["Red", "Green","pink"])

print(color\_list\_1.difference(color\_list\_2))



**16.Create a single string separated with space from two strings by swapping the character at position 1.**

a="python"

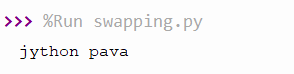
b="java"

p1=a[0]

p2=b[0]

c=b[0]+a[1:len(a)]+" "+a[0]+b[1:len(b)]

print(c)



**17.Sort dictionary in ascending and descending order.**

import operator

d = {1: 2, 3: 4, 4: 3, 2: 1, 0: 0}

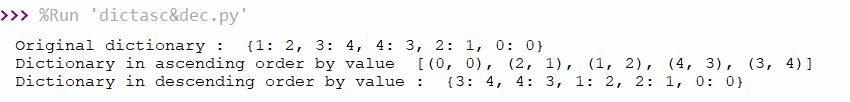
print('Original dictionary : ',d)

sorted\_d=sorted(d.items(), key=operator.itemgetter(1))

print('Dictionary in ascending order by value ',sorted\_d)

sorted\_d =dict(sorted(d.items(), key=operator.itemgetter(1),reverse=True))

print('Dictionary in descending order by value : ',sorted\_d)



**18.Merge two dictionaries**

d1 ={ 'a': 100, 'b': 200}

d2 ={'x' : 300, 'y': 200}

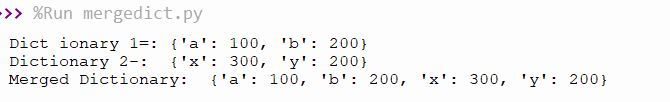
print ("Dict ionary 1=:", d1)

print ("Dictionary 2-: ", d2)

d =d1. copy ()

d.update (d2)

print ("Merged Dictionary: ", d)

****

**19.Find gcd of 2 numbers.**

x= int(input("Enter 1st number: "))

y= int(input("Enter 2nd number: "))

i = 1

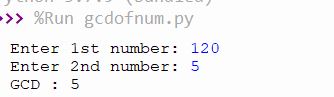
while(i <= x and i <= y):

if(x % i == 0 and y% i == 0):

gcd = i

i = i + 1

print("GCD :", gcd)



**20.From a list of integers, create a list removing even numbers.**

num = [7,8, 120, 25, 44, 20, 27]

print( "Original list:",num)

num = [x for x in num if x%2!=0]

print("list after removing Even numbers:",num)

