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=" ")

**Output**

**enter the start year2000**

**enter the end year3000**

**leap years are:2000210022002300240025002600270028002900**

3.**List comprehensions:**

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

list1 =[ -20,-10,45,86,-90,60]

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

print(re)

**Output**

[45, 86, 60]

**b)Square of N number**

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

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

print("Square of N numbers:", squarelist)

**OUTPUT:**

enter the limit10

square of n numbers [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]

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

word =str(input("Enter the word :"))

print("The original string is : "+word)

print("The vowel are : ",end="")

for i in word:

if i in 'aeiouAEIOU':

print([i],end=" ")

**OUTPUT:**

enter the wordsanilalorance

the string is: sanilalorance

['a']['i']['a']['o']['a']['e']

**d)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=" ")

**OUTPUT:**

**enter a wordpython**

**ordinal values corresponding to each element is:**

**p112y121t116h104o111n110**

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))))

**OUTPUT:**

enter a string:python

count of the occurrence:[('python', 1)]

**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])

**output**

enter{s} values

135

89

the list after assinging:

over

89

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

a\_list = ["a",”b”, "b", "a"]

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

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

**OUTPUT:**

count of the occurrences of b: 2

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)

**OUTPUT**

Lists are of same length

not same sum

Elements that matched are:

[1, 5, 7]

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

strl="sanila"

char=strl[1]

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

strl=char+strl[2:]

print(strl)

**OUTPUT**

anil$

**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\_str)

print("new string:",new\_str[-1:])

**OUTPUT**

enter a string:python

nythop

new string: p

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

pi=3.14

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

radius=3.14\*r\*r

print("the area of the circle with radius is:",radius**)**

**OUTPUT**

input the radius of the circle:6

the area of the circle with radius is: 113.03999999999999

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)

**OUTPUT**

Enter 1st number: 26

Enter 2nd number: 21

Enter 3rd number: 56

The largest number is 56

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

file=input("enter filename:")

f=file.split(".")

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

**OUTPUT**

enter filename:area.py

extension of the file is:py

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])

**OUTPUT**

enter the color:green

enter the color:blue

enter the color:red

['green', 'blue', 'red']

green

red

**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)

**OUTPUT**

enter a number:6

n+nn+nnn: 738

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

color\_list\_1=set(["white","blue","red","pink"])

color\_list\_2=set(["white","red","pink,""green"])

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

**OUTPUT**

**{'pink', 'blue'}**

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

a="sanila"

b="lorance"

p1=a[0]

p2=b[0]

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

print(c)

**OUTPUT**

Lanilasorance

**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)

**OUTPUT**

Enter 1st number: 34

Enter 2nd number: 120

GCD : 2

**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)

**OUTPUT**

Original list: [7, 8, 120, 25, 44, 20, 27]

list after removing Even numbers: [7, 25, 27]