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

a=int(input("enter the starting year"))

b=int(input("enter tne last year"))

if(a<b):

print("leap year is",end="")

for i in range(a,b):

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

print(i,end="")

print()

output

enter the starting year2001

enter tne last year2030

leap year is2004

2008

2012

2016

2020

2024

2028

1. **List comprehensions**

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

list=[10,-9,-25,66,3,7]

r=[n for n in list if n>=0]

print(r)

output

[10, 66, 3, 7]

* **Square of N number**

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

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

print("squre is",square)

output

enter the number6

squre is [1, 4, 9, 16, 25, 36]

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

n=input("enter the word")

print("the strings are",n)

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

for i in n:

if i in 'aeiouAEIOU':

print([i],end="")

output

enter the word javascript

the strings are javascript

the vowels are['a']['a']['i']

* **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 word:javascript

Ordinal values corresponding to each element is:

j:106 a:97 v:118 a:97 s:115 c:99 r:114 i:105 p:112 t:116

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

str1 = input("Enter a string : ")

wlist = str1.split()

count= []

for i in wlist:

count.append(wlist.count(i))

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

output

Enter a string : java is power full

count of the occurrence:[('java', 1), ('is', 1), ('power', 1), ('full', 1)]

1. **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 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 a limit:2

Enter values

24

199

The list after assinging:

24

Over

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

list=["a","a","b","a","a","b","a"]

str=list.count("a")

print(str)

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

output

5

count of occurrences of a : 5

1. . **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**

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

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

s=int(0)

c=int(0)

if len(a)==len(b):

print("Lists are of same length")

else:

print("Lists have different length")

for i in range(0,len(a) and len(b)):

s=s+a[i]

c=c+b[i]

if(s==c):

print("equal sum")

else:

print("not same sum")

print("Elements that matched are:")

l=[]

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

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

if a[i]==b[j]:

l.append(a[i] and b[j])

else:

continue

print(l)

output

Lists are of same length

not same sum

Elements that matched are:

[1, 5, 7]

1. 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)

output

malayala$

1. **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)

output

Enter a string:webprogram

New string : mebprograw

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

pi=3.14

r=float(input("enter the number"))

radius=pi\*r\*r

print(radius)

output

enter the number10

314.0

1. Find biggest of 3 numbers entered

a=int(input("enter the first number"))

b=int(input("enter the 2nd number"))

c=int(input("enter the 3rd number"))

if(a>b and a>c):

larg=a

elif(b>a and b>c):

larg=b

else:

larg=c

print("the largest number is",larg)

output

enter the first number30

enter the 2nd number35

enter the 3rd number33

the largest number is 35

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

file=input("enter file name:")

f=file.split(".")

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

output

enter file name:large.py

Extension of the file is:py

12.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("first",a[0])

print("last",a[2])

output

enter the color green

[' green']

enter the color red

[' green', ' red']

enter the colorwhite

[' green', ' red', 'white']

first green

last white

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

n=int(input("enter the 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 the number:6

n+nn+nnn: 738

14**.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))

output

{'Blue', 'White'}

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

a="python"

b="cpp"

p1=a[0]

p2=b[0]

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

print(c)

output

cython ppp

**16.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: 120

Enter 2nd number: 5

GCD : 5

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

num = [6,8, 124, 125, 44, 18, 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: [6, 8, 124, 125, 44, 18, 27]

list after removing Even numbers: [125, 27]