**CO1\_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 year is",end=" ")

for i in range(s,e):

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

print(i,end=" ")

**OUTPUT**

enter start year:2031

enter end year:2070

leap year is 2032 2036 2040 2044 2048 2052 2056 2060 2064 2068

**CO1\_3:-**

.List comprehensions:

1. Generate positive list of numbers from a given list of integers

**OUTPUT**

[1, 4, 6, 3, 9]

1. Square of N number

**OUTPUT**

enter the limit:5

sqaure [1, 4, 9, 16, 25]

1. Form a list of vowels selected from a given word

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

print("the actual string is",word)

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

for i in word:

if i in "aeiou,AEIOU":

print(i,end=" ")

**OUTPUT**

enter the string:HUMMING BIRD

the actual string is HUMMING BIRD

vowels are: U I I

**CO1\_4:-**

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

str1=str(input("enter the string:"))

wordlist=str1.split()

count=[]

for w in wordlist:

count.append(wordlist.count(w))

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

**OUTPUT**

enter the string:MALAYALAM

count of the occurence: [('MALAYALAM', 1)]

**CO1\_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 a limit:2

Enter {s} values

24

199

The list after assinging:

24

over

**CO1\_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 occurrence of a:",occ)

**OUTPUT**

count of occurrence of a: 2

**CO1\_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]

**CO1\_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)

**OUTPUT**

malayala$

**CO1\_9:-**

Create a string from given string where first and last characters exchanged.

str=input("enter a string:")

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

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

**OUTPUT**

enter a string:PYTHON

new string: NYTHOP

**CO1\_10:-**

Accept the radius from user and find area of circle.

pi=3.14

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

result=3.14\*r\*\*2

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

**OUTPUT**

input the radius:4

the area of the circle with radius is: 50.24

**CO1\_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: 54

Enter 2nd number: 67

Enter 3rd number: 32

The largest number is 67

**CO1\_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:SISIRA.JAVA

extension of the file is:JAVA

**CO1\_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:RED

enter the color:BLUE

enter the color:GREEN

['RED', 'BLUE', 'GREEN']

RED

GREEN

**CO1\_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:2

n+nn+nnn: 246

**CO1\_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))

**OUTPUT**

{'white', 'blue'}

**CO1\_16:-**

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

a="kite"

b="hat"

p1=a[0]

p2=b[0]

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

print(c)

**OUTPUT**

hite kat

**CO1\_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: 65

GCD : 1

**CO1\_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]

**CO1\_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)

**OUTPUT**

Original dictionary : {1: 2, 3: 4, 4: 3, 2: 1, 0: 0}

Dictionary in ascending order by value [(0, 0), (2, 1), (1, 2), (4, 3), (3, 4)]

Dictionary in descending order by value : {3: 4, 4: 3, 1: 2, 2: 1, 0: 0}

**CO1\_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)

**OUTPUT**

Dict ionary 1= {'a': 50, 'b': 150}

Dictionary 2= {'x': 250, 'y': 200}

Merged Dictionary: {'a': 50, 'b': 150, 'x': 250, 'y': 200}