**Programs**

**1.. Familiarizing Text Editor, IDE, Code Analysis Tools etc // Use any IDE**

**Pycharm**

-specialized project views allowing quick switching between files.

-facilitates web development along with Django flask and web 2py.

**Eric**

-build-in support for Django.

-code fielding.

-Format syntax highlighting,

**Thonny**

-separate windows are provided to execute function calls.

-statement stepping without break points.

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

c=int(input("enter current year"))

f=int(input("enter final year"))

if(c<f):

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

for i in range(c,f):

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

print(i,end=" ")

**output:**

enter current year 2014

enter final year 2040

leap year: 2016 2020 2024 2028 2032 2036

3..**List comprehensions:**

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

list=[1,3,-4,-8,9]

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

print(p)

**output:**

[1, 3, 9]

b)**Square of N number**

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

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

print("square is:",s,end=" ")

**output:**

enter a limit 5

square is: [1, 4, 9, 16]

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

n=str(input("enter a string"))

for i in n:

if i in"aeiouAEIOU":

print(i)

**output:**

enter a string aysha

a

a

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

n=str(input("enter a str"))

for i in n:

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

**output:**

enter a str aathira

32 97 97 116 104 105 114 97

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))))

**ouput:**

Enter a string : my name is athira

count of the occurrence:[('my', 1), ('name', 1), ('is', 1), ('athira', 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 values")

for i in range(0,s):

n.append(int(input()))

print(" values after\n")

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

if n[i]>=100:

print("over")

else:

print(n[i])

**output:**

enter a limit3

enter values

23

45

109

values after

23

45

over

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

list=['athira','frd','abc','a','a']

l1=list.count("a")

print("occurence",l1)

**output:**

occurence 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=[1,3,5,7,9,11,4]

lst1=[5,13,5,7,0,6,1]

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]**

str="athira"

char=str[0]

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

str=char + str[1:]

print(str)

**output:** athir$

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

str=input("enter a string")

str1=str[-1:]+str[1:-1]+str[:1]

print("string is",str1)

**output:**

enter a string python

string is nythop

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

pi=3.14

r=int(input("enter radius"))

a=pi\*r\*r

print("area",a)

**output:**

enter radius 2

12.56

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

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

b=int(input("enter a number"))

c=int(input("enter a number"))

if(a>b and a>c):

print("a is the largest:",a)

elif(b>c):

print("b is the largest:",b)

else:

print("c is the largest:",c)

**output:**

enter a number 5

enter a number6

enter a number1

b is the largest: 6

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

x,y=(input("enter a file:").split('.'))

print("file extension:",y)

**output:**

enter a file: hello.python

file extension: python

**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:white

enter the color:blue

enter the color:yellow

['white', 'blue', 'yellow']

white

yellow

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

n=input("enter number")

x=int(n+n+n)

y=int(n+n)

z=int(n)

print(x+y+z)

**ouput**:

enter number5

615

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

list1=set(['red','white','blue'])

list2=set(['green','black','red'])

print(list1.difference(list2))

**output:**

{'blue', 'white'}

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

a="thir"

b="damu"

p1=a[0]

p2=b[0]

c=b[0]+a[1:]+" "+ a[-4]+b[1:]

print(c)

**output:**

dhir tamu

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

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

b=int(input("enter a number"))

i=1

while(i<=a and i<=b):

if(a%i==0 and b%i==0):

gcd=i

i=i+1

print("gcd",gcd)

**output:**

enter a number 5

enter a number4

gcd 1

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

n=[2,3,6,7,9,4,8]

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

print("nos after removing",n)

**output:**

nos after removing [3, 7, 9]