1. IMPLEMENTION OF LIST

l3=[20,30,40,59,69,99,76,87,90]

print(l3)

print('list slicing’, l3[2:5])

print('count is',l3.count(30))

l3.append(200)

print('appending element',l3)

print('index is',l3.index(20))

print('max of list’,max(l3))

print('minimum of list',min(l3))

print('length og list is',len(l3))

l3.reverse()

print('revered list',l3)

print('popped element',l3.pop(0))

print('sorted is',sorted(l3))

print(l3)

l3.sort()

print('after sorting',l3)

l5=l3.copy

print('copied list is',l5)

l3=l3\*2

print(l3)

print((40 in l3))

print((500in l3))

OUTPUT

[20, 30, 40, 59, 69, 99, 76, 87, 90]

list slicing [40, 59, 69]

count is 1

appending element [20, 30, 40, 59, 69, 99, 76, 87, 90, 200]

index is 0

max of list 200

minimum of list 20

length og list is 10

revered list [200, 90, 87, 76, 99, 69, 59, 40, 30, 20]

popped element 200

sorted is [20, 30, 40, 59, 69, 76, 87, 90, 99]

[90, 87, 76, 99, 69, 59, 40, 30, 20]

after sorting [20, 30, 40, 59, 69, 76, 87, 90, 99]

copied list is <built-in method copy of list object at 0x000002597D658B00>

[20, 30, 40, 59, 69, 76, 87, 90, 99, 20, 30, 40, 59, 69, 76, 87, 90, 99]

True

False

2. IMPLEMENTION ON TUPLE

tup1=()

print(tup1)

print(type(tup1))

tup2=(45,)

print('single element tuple',tup2)

tup3=tuple(range(10,20))

print('tuple with range',tup3)

for i in tup3:

print(i)

l1=[20,30,40]

tup5=tuple(l1)

print('tuple from list is',tup5)

tup6=tup5+tup3

print('tuple by concatenation',tup6)

print('tuple slicing',tup6[2:7])

print('tuple from beginning',tup6[ :8])

print('count of a number',tup6.count(20))

print('position of the no is ',tup6.index(30))

print('min of tuple',min(tup6))

print('max of tuple',max(tup6))

print('length of tuple',len(tup6))

print('sort without modifying tuple is ',sorted(tup6))

t=tup6\*3

print('new tuple by repetition of tuple',t)

print('presence of element in tuple',(40 in tup6))

print('absence of elemnet in tuple',(500 in tup6))

OUTPUT

()

<class 'tuple'>

single element tuple (45,)

tuple with range (10, 11, 12, 13, 14, 15, 16, 17, 18, 19)

10

11

12

13

14

15

16

17

18

19

tuple from list is (20, 30, 40)

tuple by concatenation (20, 30, 40, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19)

tuple slicing (40, 10, 11, 12, 13)

tuple from beginning (20, 30, 40, 10, 11, 12, 13, 14)

count of a number 1

position of the no is 1

min of tuple 10

max of tuple 40

length of tuple 13

sort without modifying tuple is [10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 40]

new tuple by repetition of tuple (20, 30, 40, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 40, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 30, 40, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19)

presence of element in tuple True

absence of element in tuple False

3. WRITE A PROGRAM TO COUNT NUMBER OF CHARACTER IN STRING AND STORED IN A DICTIONARY DATA STRUCTURE

str=input (“Enter a string”)

l=len(str)

d = {str: l}

print (‘dictionary is ‘)

print(d)

OUTPUT

Enter a String: AKASH

dictionary is

{'AKASH': 5}

4. WIRTE A PROGRAM TO READ THE LINES WHICH DOESNOT CONTAIN THE CHARACTERS ‘A’ FROM A FILE AND WRITE ONTO A ANOTHER FILE

import re

f=open("text.txt","r")

txt=f.readlines()

print(txt)

l=len(txt)

f2=open("new.txt","w")

for i in range(0,l):

x=re.search('a',txt[i])

if not x:

f2.write(txt[i])

f2.close()

f2=open("new.txt","r")

print(f2.read())

OUTPUT

['the people in the world \n', 'armed weapon\n', 'Akash is a good person\n', 'bike rider\n', 'god gift']

the people in the world

bike rider

god gift

5.WRITE A PROGRAM TO IMPLEMENT A STACK AND QUEUE USING LIST DATA STRUCTURE

ch=1

l1=[20,30,40,50]

l2=[45,35,65,85,95]

while(ch==1):

print("1.stack operation\n")

print("2.queue operation\n")

ch=int(input("enter your choice"))

if(ch==1):

print('stack is',l1)

print('1.push\n')

print('2.pop\n')

print('enter your choice')

ch2=int(input())

if(ch2==1):

no=int(input("enter a no to push"))

l1.append(no)

print('list after push',l1)

elif(ch2==2):

print('popped element is',l1.pop())

print('listafter pop is',l1)

else:

print('illegal choice')

elif(ch==2):

print('queue is',l2)

print('1.insert')

print('2.delete')

print('enter your choice')

ch2=int(input())

if(ch2==1):

no=int (input("enter no to insret"))

l2.insert(len(l2),no)

print(l2)

elif(ch2==2):

print('delete element is',l2.pop(0))

print(l2)

else:

print('wrong choice')

else:

print('wrong choice')

print('enter 1 to contiue')

ch=int(input())

6.WRITE A PYTHON PROGRAM TO CREATE STUDENT TABLE AND FIND MN,MAX,SUM AND AVERAGE OF MARKS IN A STUDENT TABLE

import mysql.connector as conn

db=conn.connect(host="localhost", user="root", password="root",database="emp")

cu=db.cursor()

#sql1="create table student( s\_id varchar(10),name varchar(20),dept varchar(10),marks varchar(10));"

#cu.execute(sql1)

sql2="insert into student values(%s,%s,%s,%s)"

val=[('12','arun','bca','78'),

('55','ramu','bca','89'),

('78','reethu','bca','99'),

('67','biju','bca','68')

]

cu.executemany(sql2,val)

db.commit()

#db.close()

sql3="select max(marks) from student"

cu.execute(sql3)

max1=cu.fetchall()

print("maximum is ",max1)

sql4="select min(marks) from student"

cu.execute(sql4)

min1=cu.fetchall()

print("min is",min1)

sql5="select sum(marks) from student"

cu.execute(sql5)

sum1=cu.fetchall()

print("sum is",sum1)

sql6="select avg(marks) from student"

cu.execute(sql6)

avg1=cu.fetchall()

print("avg is",avg1)

7. WRITE A PROGRAM TO CREATE CUSTOMER TABLE AND FIND TOTAL NUMBER OF CUSTOMERS FROM EACH COUNTRY IN THE TABLE (CUSTOMER ID,NAME,AGE,COUNTRY USING GROUP BY)

import mysql.connector as conn

db=conn.connect(host="localhost", user="root", password="root",database="emp")

cu=db.cursor()

sql1="create table customer(customer\_id varchar(10),cname varchar(20),age varchar(10),country varchar(10));"

cu.execute(sql1)

sql2="insert into customer values(%s,%s,%s,%s)"

val=[('12','arun','58','India'),

('55','ramu','45','US'),

('78','reethu','23','India'),

('67','biju','34','US'),

('44','minu','44','India'),

('46','jiji','45','India'),

('67','ravi','52','Dubai')

]

cu.executemany(sql2,val)

db.commit()

sql3="select count(customer\_id),country from customer group by country"

cu.execute(sql3)

details=cu.fetchall()

for i in details:

print(i)

db.close()

8. WRITE A PROGRAM TO OPEN A FILE READ OOD LINES FROM THE FILE AND WRITE IT INTO A NEW FILE

f=open("text.txt","r")

lis=f.readlines()

le=len(lis)

f2=open("bh.txt","w")

for i in range(0,le,2):

f2.write(lis[i])

f2.close()

f2=open("bh.txt","r")

print(f2.read())

OUTPUT

the people in the world

Akash is a good person

god gift

9.WRITE A PROGRAM TO CREATE EMPLOYEE TABLE INSERT 5 TUPLES AND DELETE A PARTICULAR EMPLOYEE RECORD FROM THE EMPLOYEE TABLE

import mysql.connector as conn

db = conn.connect(host="localhost",

user="root",

password="root")

cu = db.cursor()

#sql1 = "create database emp;"

sql2 = "use emp;"

#sql3 = "create table employee(emp\_id varchar(10), name varchar(20),dept varchar(10),salary varchar(10));"

sql4 = "Insert into employee(emp\_id,name,dept,salary),values('001','abc','it','1000');"

#cu.execute(sql1)

cu.execute(sql2)

cu.execute(sql3)

cu.execute(sql4)

sql5 = "select\*from employee"

sql6 = "delete from employee where emp\_id='003';"

cu.execute(sql5)

cu.execute(sql6)

cu.fetchall()

db.close()

10. WRITE A PROGRAM TO LINE PLOT USING PYPLOT

import matplotlib.pyplot as plot

a=[1,2,3,4,5]

b=[0,0.6,0.2,15,10]

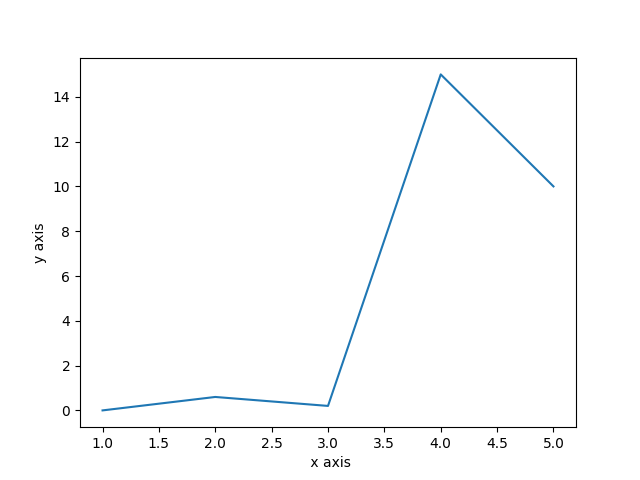
plot.plot(a,b,label="line plot")

plot.xlabel(" x axis")

plot.ylabel("y axis")

plot.show()

OUTPUT



11. WRITE A PROGRAM FOR HISTOGRAM USING PYPLOT

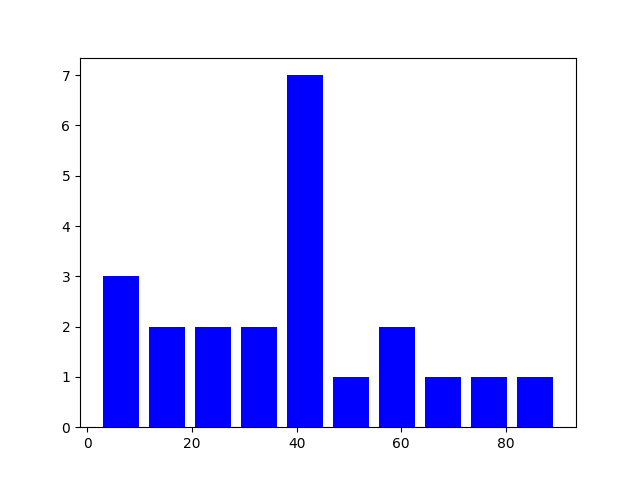
import matplotlib.pyplot as plot

ages=[2,5,70,40,30,45,50,45,43,40,44,60,7,13,57,18,90,77,32,21,20,40]

plot.hist(ages,color="blue",histtype="bar",rwidth=0.8)

plot.show()

OUTPUT



12. WRITE A PROGRAM FOR EXPOENTIAL USING PYTHON

def fact(n,x):

f=1

fact=1

for i in range(1,n+1):

f=f\*x

fact=fact\*i

return f,fact

import expo

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

x=int(input("Enter x value:"))

s=1

for i in range(1,n+1):

r1,r2=expo.fact(i,x)

s=s+(r1/r2)

print("sum is",s)

OUTPUT

Enter n number:4

Enter x value:4

sum is 34.33333333333333

13.WRITE A PROGRAM FOR RANDOM THAT GENERATES RANDOM NUMBERS BTWEEN 1 AND 6 (SIMULATES A DICES)

from random import randrange

for i in range(0,4):

no=randrange(1,6)

if(no==1):

print("one")

elif(no==2):

print("two")

elif(no==3):

print("three")

elif(no==4):

print("four")

elif(no==5):

print("five")

elif(no==6):

print("six")

OUTPUT

four

four

three

three