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**Output-01**

You are using PyTigon app v2.0

This is unique app made for students to help in the work

This app is made by Mr. Priyanshu Jha from Panipat

The result are approx bounded by limits with error percenatge 0.00000035

IMP:- Here 999999999 represents Not defined , it is done to avoid bugs

Enter Angle in Degree in limit of (-1 < Angle < 181 ) : 45

The sine of the given Angle is : 0.7058823529411765

The Cosine of the given Angle is : 0.7058823529411765

The Tangent of the given Angle is : 1.0

The Cosecant of the given Angle is : 1.4166666666666665

The Secant of the given Angle is : 1.4166666666666665

The Cotangent of the given Angle is : 1.0

Thank you for using our App . Kindly visit Again

**Program-01**

*# PyApp to Generate Trigonometric Ratios for O<angle<180*print(**'''You are using PyTigon app v2.0  
This is unique app made for students to help in the work  
This app is made by Mr. Priyanshu Jha from Panipat  
The result are approx bounded by limits with error percenatge 0.00000035  
IMP:- Here 999999999 represents Not defined , it is done to avoid bugs  
'''**)  
x=eval(input(**"Enter Angle in Degree in limit of (-1 < Angle < 181 ) : "**))  
sin=4\*x\*(180-x) / (40500-x\*(180-x))  
print(**"The sine of the given Angle is : "**, sin)  
cos=(32400-(4\*(x\*\*2)))/(32400+(x\*\*2))  
print(**"The Cosine of the given Angle is : "**, cos)  
tan=sin/cos **if** cos!=0 **else** 999999999  
print(**"The Tangent of the given Angle is : "**,tan)  
cosec=(1/sin) **if** sin!=0 **else** 999999999  
print(**"The Cosecant of the given Angle is : "**,cosec)  
sec=(1/cos) **if** cos!=0 **else** 999999999  
print(**"The Secant of the given Angle is : "**,sec)  
cot=(1/tan) **if** tan!=0 **else** 999999999  
print(**"The Cotangent of the given Angle is : "**,cot)  
print(**'''   
 Thank you for using our App . Kindly visit Again  
 '''**)

**Output-02**

Enter five numbers below

First number : 200

Second number : 250

Third number : 4

Fourth number : 323

Fifth number : 22002020202002

Enter divisor number: 5

Multiples of 5.0 are :

200.0

250.0

2 multiples of 5.0 Found

**Program-02**

*#Pyapp to find the multiple of Divisor and count them.*print (**"Enter five numbers below"**, **"\n"**)  
n1=float(input (**"First number : "**))  
n2=float(input (**"Second number : "**))  
n3=float(input (**"Third number : "** ))  
n4=float(input ( **"Fourth number : "**))  
n5=float(input( **"Fifth number : "**))  
D=float (input (**"Enter divisor number: "** ))  
count=0  
print(**"Multiples of"**, D, **"are : "**)  
remainder = n1%D  
**if** remainder==0 :  
 print(n1, sep=**" "**)  
 count+=1  
remainder = n2%D  
**if** remainder==0 :  
 print(n2, sep=**" "**)  
 count+= 1  
remainder = n3%D  
**if** remainder==0 :  
 print(n3, sep=**" "**)  
 count+= 1  
remainder = n4\*D  
**if** remainder==0 :  
 print (n4, sep =**" "**)  
 count +=1  
remainder = n5%D  
**if** remainder==0 :  
 print (n5, sep =**" "**)  
 count +=1  
print()  
print(count, **"multiples of"**, D,**"Found"**)

**Output-03**

**\***

**\* \* \***

**\* \* \* \* \***

**\* \* \***

**\***

**Program-03**

#To print Graphical Pattern using Star(\*)

n=5 *# number of lines  
# upper half*k= round (n/2)\*2 *# for initial spaces***for** i **in** range(0,n,2):  
**for** j **in** range(0,k+1):  
 print(end=**" "**)  
**for** j **in** range(0,i+1):  
 print(**"\* "**, end=**""**)  
 k=k-2  
 print()  
*#lower Half*k=1  
**for** i **in** range(n-1, 0, -2):  
**for** j **in** range(0, k + 2):  
 print(end=**" "**)  
**for** j **in** range(0, i-1):  
 print(**"\* "**, end=**""**)  
 k = k + 2  
 print()

**Output-04**

The List is = [117, 23, 18, 19]

Main Menu

l. Insert

2. Delete

3. Exit

Enter your choice 1/2/3 : 1

Enter item : 106

Insert at which position 1

SUCCESS! List is now : [106, 117, 23, 18, 19]

Main Menu

l. Insert

2. Delete

3. Exit

Enter your choice 1/2/3 : 2

Deletion Menu

1. Delete using Value

2. Delete using index

3. Delete a sublist

Enter choice (1 or 2 or 3): 1

Enter Item to be deleted : 19

List now is : [106, 117, 23, 18]

Main Menu

l. Insert

2. Delete

3. Exit

Enter your choice 1/2/3 : 3

**Program-04**

#PyApp to Modify List Elements

val = [117, 23, 18, 19]  
print(**"the List is = "**, val)  
**while True**:  
 print(**"Main Menu"**)  
 print(**"l. Insert"**)  
 print(**"2. Delete"**)  
 print(**"3. Exit"**)  
 ch = int(input(**"Enter your choice 1/2/3 : "**))  
**if** ch == 1:  
 item = int(input(**"Enter item : "**))  
 pos = int(input(**"Insert at which position "**))  
 index = pos- 1  
 val.insert(index, item)  
 print(**"SUCCESS! List is now : "**, val)  
**elif** ch == 2:  
 print(**"Deletion Menu "**)  
 print(**"1. Delete using Value"**)  
 print(**"2. Delete using index"**)  
 print(**"3. Delete a sublist"**)  
 dch = int(input(**"Enter choice (1 or 2 or 3): "**))  
**if** dch == 1:  
 item = int(input(**"Enter Item to be deleted : "**))  
 val.remove(item)  
 print(**"List now is : "**, val)  
**elif** dch == 2:  
 index = int(input(**"Enter index of item to be deleted : "**))  
 val.pop(index)  
 print(**"List is Now :"**, val)  
**elif** dch == 3:  
 l = int(input(**"Enter lower limit of List slice to be deleted: "**))  
 h = int(input(**"Enter upper limit of List slice to be deleted:"** ))  
**del** val[l:h]  
 print(**"List now is:"**, val)  
**elif** ch==3:  
**break**;  
**else**:  
 print(**"Valid choices are 1/2/3 only !! "**)

**Output-05**

Enter a Sentence to Show its Stats : Hello my 123

No. of Character including White Space are 12

No. of Digit are 3

No. of UPPERCASE Letter are 1

No. of lowercase Letter are 6

No. of Symbolic Character are 0

**Program-05**

#To Show the brief details of a Sentence

txt=(input(**"Enter a Sentence to Show its Stats : "**))  
countN=countU=countL=0  
countT=countS=0  
**for** x **in** txt:  
**if** x.isdigit():  
 countN+=1  
**elif** x.isupper():  
 countU+=1  
**elif** x.islower():  
 countL+=1  
**elif** x.isalnum()!=**True and** x!=**' '**:  
 countS+=1  
print(**"No. of Character including White Space are"**,len(txt))  
print(**"No. of Digit are"**,countN)  
print(**"No. of UPPERCASE Letter are"**,countU)  
print(**"No. of lowercase Letter are"**,countL)  
print(**"No. of Symbolic Character are"**,countS)

**output-06**

Welcome to the Game

Enter Your Name: Priyanshu Jha

You are Courageous

Your Today's Lucky Number is 9

Your Today's Lucky Alphabet is H

**Program-06**

*# PyApp to Guess you character & Your Lucky Number*

*import random*

*print("Welcome to the Game")*

*"\n"*

*Bucket=["Sensitive","Caring","Cautious","Courageous","Disciplined","Farsighted",\*

*"Focused","Friendly","Hardworking","Helpful","Trustworthy","Sincere","Loyal",\*

*"Joyful","Loving","Innovative and Friendly","Modest","Motivating","Obedient",\*

*"Open-minded","Optimistic","Passionate","Punctual","Realistic","Reliable",\*

*"Responsible"]*

*alpha=(input("Enter Your Name: "))*

*print(" You are", random.choice(Bucket))*

*No=random.randrange(0,255)*

*X=random.randint(0,No)*

*print("Your Today's Lucky Number is ", X)*

*Y=random.randint(65,90)*

*L1=chr(Y)*

*print("Your Today's Lucky Alphabet is ",L1)*

**Output-07**

CASE-I

FOR QUADRATIC EQUATIONS IN THE FORM OF Ax\*\*2 + Bx + c ,ENTER COEFFICIENTS BELOW :

ENTER THE VALUE OF A: 2

ENTER THE VALUE OF B : 3

ENTER THE VALUE OF C: 4

The value of Discriminant is -23.0

ROOTS ARE COMPLEX AND IMAGINARY

ROOT-1 = (-3+11.5j) ROOT-2 = (-3-11.5j) In Python j represents tradition i for complex numbers

CASE-II

FOR QUADRATIC EQUATIONS IN THE FORM OF Ax\*\*2 + Bx + c ,ENTER COEFFICIENTS BELOW :

ENTER THE VALUE OF A: 3

ENTER THE VALUE OF B : 5

ENTER THE VALUE OF C: 2

The value of Discriminant is 1.0

ROOTS ARE REAL AND UNEQUAL

ROOT-1 = -0.75 ROOT-2 = -1.0

**Program-07**

*#Pyapp to Calculate Quadratic Equations***import** math  
print(**"FOR QUADRATIC EQUATIONS IN THE FORM OF Ax\*\*2 + Bx + c ,ENTER COEFFICIENTS BELOW : "**)  
a=int(input(**"ENTER THE VALUE OF A: "**))  
b=int(input(**"ENTER THE VALUE OF B : "**))  
c=int(input(**"ENTER THE VALUE OF C: "**))  
**if** a==0 :  
 print(**"Value of A ="**,a,**"should not be Zero"**)  
 print(**"\n !!!!!!!!!!Aborting!!!!!!!!!!!!!!!"**)  
**else**:  
 D=math.pow(b,2)-4\*a\*c  
 print(**"The value of Discriminant is "**, D)  
**if** D>0:  
 r1 = (-b + (D\*\*1/2))/(2\*a)  
 r2 = (-b - math.sqrt(D))/(2\*a)  
 print(**"ROOTS ARE REAL AND UNEQUAL"**)  
 print(**"ROOT-1 ="**,r1,**"ROOT-2 = "**, r2)  
**elif** D==0 :  
 r1 = (-b)/(2\*a)  
 print(**"ROOTS ARE REAL AND EQUAL"**)  
 print(**"ROOT-1 ="**,r1,**"ROOT-2 = "**, r1)  
**else** :  
 print(**"ROOTS ARE COMPLEX AND IMAGINARY"**)  
 r1=(((-b+(D\*\*1/2j))/2\*a))  
 r2=(((-b-(D\*\*1/2j))/2\*a))  
 print(**"ROOT-1 ="**,r1,**"ROOT-2 = "**, r2,**"In Python j represents tradition i for complex numbers"**)

**Output-08**

Enter first number : 50

Enter second number : 10

Enter operator [+- \* / %] : \*

50.0 \* 10.0 = 500.0

**Program-08**

#Python Calculator

N1=float(input(**"Enter first number : "** ))  
N2=float(input( **"Enter second number : "**))  
op=(input(**"Enter operator [+- \* / %] : "**))  
result =0  
**if** op==**'+'**:  
 result = N1 + N2  
**elif** op == **'-'** :  
 result = N1 - N2  
**elif** op == **'\*'** :  
 result= N1\*N2  
**elif** op==**'/'**:  
 result=N1/N2  
**else**:  
 print(**"Invalid Operator, Aborting !!!!!!!!!!"**)  
print(N1,op,N2,**"="**,result)

**Output-09**

Enter List Separated by Space ( ) :- 44 22 33 55 66 88 77 99 11

Sorted List through Insertion Sort ['11', '22', '33', '44', '55', '66', '77', '88', '99']

Sorted List through Bubble Sort ['11', '22', '33', '44', '55', '66', '77', '88', '99']

**Program-09**

#Sorting through Insertion & Bubble Sort

#Function

def Isort(a):

for i in range( 1,len(alist)):

k=alist[i]

j=i-1

while j>=0 and k<alist[j]:

alist[j+1]=alist[j]

j=j-1

else:

alist[j+1]=k

return alist

def Bsort(a) :

n=len(a)

for i in range (n):

for j in range(0,n-i-1):

if a[j]>a[j+1]:

a[j],a[j+1]=a[j+1],a[j]

return a

#Main

Given\_List=str(input("Enter List Separated by Space ( ) :- " )).split()

alist=Given\_List

print('Sorted List through Insertion Sort',Isort(alist))

print('Sorted List through Bubble Sort',Bsort(alist))

**Output-10**

Enter Message for Encryption :- Hello !! Welcome to the world of internet where it is necessary to safeguard your data by the menthod of Encryption. This method has prevented various unauthorized Access across the globe.

Original Message Hello !! Welcome to the world of internet where it is necessary to safeguard your data by the menthod of Encryption. This method has prevented various unauthorized Access across the globe.

Encrypted Message .%b&lg)-\_-(%$$t)-\_-(ss&rc@@)-\_-(ss%ccA)-\_-(d%z#####r&$$t~~@@n~~)-\_-(s~~&#####r@@v)-\_-(d%tn%v%r\*\*\*\*)-\_-(s@@$$)-\_-(d&$$t%m)-\_-(s#####$$T)-\_-(.n&#####t\*\*\*\*yrcnE)-\_-(f&)-\_-(d&$$tn%m)-\_-(%$$t)-\_-(yb)-\_-(@@t@@d)-\_-(r~~&y)-\_-(dr@@~~g%f@@s)-\_-(&t)-\_-(yr@@ss%c%n)-\_-(s#####)-\_-(t#####)-\_-(%r%$$w)-\_-(t%nr%tn#####)-\_-(f&)-\_-(dlr&w)-\_-(%$$t)-\_-(&t)-\_-(%m&cl%W)-\_-(!!)-\_-(&ll%H

Decrypted Message Hello !! Welcome to the world of internet where it is necessary to safeguard your data by the menthod of Encryption. This method has prevented various unauthorized Access across the globe.

**Program-10**

#Encryption & Decryption

#Function

def Encrypt(String):

z=String.replace('u','~~')

z=z.replace('p','\*\*\*\*')

z=z.replace('o','&')

z=z.replace('i','#####')

z=z.replace('a','@@')

z=z.replace('e','%')

z=z.replace('h','$$')

z=z.replace(' ','(-\_-)')

Encrypt=z[::-1]

return Encrypt

def Decrypt(String):

lenght=len(String)

z=String.replace('~~','u')

z=z.replace('\*\*\*\*','p')

z=z.replace('&','o')

z=z.replace('#####','i')

z=z.replace('@@','a')

z=z.replace('%','e')

z=z.replace('$$','h')

z=z.replace(')-\_-(',' ')

Decrypt=z[::-1]

return Decrypt

#Main

Given\_str=str(input("Enter Message for Encryption :- " ))

print('Original Message ',Given\_str )

Enc=Encrypt(Given\_str)

print()

print('Encrypted Message',Enc)

print()

Dec=Decrypt(Enc)

print('Decrypted Message ',Dec)

**Output-11**

Please Enter the Amount of Loan Required : 100000

Please Enter the Time Period for Loan Required in Years : 2

Enter the Type of Loan required

1. Personal Loan

2. Business Loan

3. Home Loan

Please Choose the required Option :- 1

The Principal Amount is 100000.0

The Tenure of Loan in year is 2.0

Total Interest Paid will be 28000.000000000004

Total Amount Paid will be 128000.0

Your Monthly EMI will be 5333.333333333333

======== RESTART: ========

Please Enter the Amount of Loan Required : 100000

Please Enter the Time Period for Loan Required in Years : 2

Enter the Type of Loan required

1. Personal Loan

2. Business Loan

3. Home Loan

Please Choose the required Option :- 2

The Principal Amount is 100000.0

The Tenure of Loan in year is 2.0

Total Interest Paid will be 32099

Total Amount Paid will be 132099

Your Monthly EMI will be 5504

>>>

======== RESTART: ========

Please Enter the Amount of Loan Required : 100000

Please Enter the Time Period for Loan Required in Years : 2

Enter the Type of Loan required

1. Personal Loan

2. Business Loan

3. Home Loan

Please Choose the required Option :- 3

The Principal Amount is 100000.0

The Tenure of Loan in year is 2.0

Total Interest Paid will be 15231

Total Amount Paid will be 115231

Your Monthly EMI will be 4801

**Program-11**

#EMI CALCULATOR

def Loan1(P,T,I=0.14):

return P\*T\*I

def Loan2(P,T,I=0.14):

CI=P\*((1+(I/12))\*\*(12\*T))-P

return CI

def Loan3(P,T,I):

R=I/12

EMI=((P\*R\*(1+R)\*\*(T\*12))/(((1+R)\*\*(T\*12))-1))

return EMI

P=float(input("Please Enter the Amount of Loan Required : " ))

T=float(input("Please Enter the Time Period for Loan Required in Years : "))

op=str(input('''

Enter the Type of Loan required

1. Personal Loan

2. Business Loan

3. Home Loan

Please Choose the required Option :- '''))

if op=='1':

print("The Principal Amount is ",P)

print("The Tenure of Loan in year is ", T )

print("Total Interest Paid will be ", Loan1(P,T))

print("Total Amount Paid will be ", P+Loan1(P,T))

print("Your Monthly EMI will be ", (P+Loan1(P,T))/(T\*12))

elif op=='2':

print("The Principal Amount is ",P)

print("The Tenure of Loan in year is ", T )

print("Total Interest Paid will be ", round(Loan2(P,T)))

print("Total Amount Paid will be ", round(P+Loan2(P,T)))

print("Your Monthly EMI will be ", round((P+Loan2(P,T))/(T\*12)))

elif op=='3':

print("The Principal Amount is ",P)

print("The Tenure of Loan in year is ", T )

print("Total Interest Paid will be" , round((Loan3(P,T,0.14)\*(T\*12))-P))

print("Total Amount Paid will be ", round(Loan3(P,T,0.14)\*(T\*12)))

print("Your Monthly EMI will be ", round((Loan3(P,T,0.14))))

**Output-12**

Enter Number Of Employees in your Company :- 2

Please Enter Details for Employee 1 Below :

Enter employee No. :- 1

Enter Name :- Priyanshu

Enter his Overall Performance :- Hard Working

Enter his Overall Rating out of 10 marks :- 10

Succesfully Written!!

Please Enter Details for Employee 2 Below :

Enter employee No. :- 2

Enter Name :- Arya

Enter his Overall Performance :- Need More Attention

Enter his Overall Rating out of 10 marks :- 5

Succesfully Written!!

File Closed!!!!!

File Re-Opened!!!!!

Enter Number Of Employees in your Company :- 1

Please Enter Details for Employee 1 Below :

Enter employee No. :- 3

Enter Name :- Divyansh

Enter his Overall Performance :- Nice

Enter his Overall Rating out of 10 marks :- 8

Seccessfully New Data Added in Previous Data

1,Priyanshu,Hard Working,10.0

2,Arya,Need More Attention,5.0

3,Divyansh,Nice,8.0

1<------->Priyanshu<------->Hard Working<------->10.0

2<------->Arya<------->Need More Attention<------->5.0

3<------->Divyansh<------->Nice<------->8.0

**Program-12**

#Employees performance & Append Data in the Same Text File

mfile=open(r'Python.txt','w')

c=int(input("Enter Number Of Employees in your Company :- "))

for i in range (c):

print("Please Enter Details for Employee",(i+1)," Below : ")

emp=int(input("Enter employee No. :- "))

name=input("Enter Name :- ")

rating=input("Enter his Overall Performance :- ")

mark=float(input("Enter his Overall Rating out of 10 marks :- "))

insert="{0},{1},{2},{3}\n".format(emp,name,rating,mark)

mfile.write(insert)

print("Succesfully Written!!")

print()

mfile.flush()

print('File Closed!!!!!')

mfile.close()

mfile=open(r'Python.txt','a')

print('File Re-Opened!!!!!')

c1=int(input("Enter Number Of Employees in your Company :- "))

for x in range (c1):

print("Please Enter Details for Employee",(x+1)," Below : ")

emp1=int(input("Enter employee No. :- "))

name1=input("Enter Name :- ")

rating1=input("Enter his Overall Performance :- ")

mark1=float(input("Enter his Overall Rating out of 10 marks :- "))

insert1="{0},{1},{2},{3}\n".format(emp1,name1,rating1,mark1)

mfile.write(insert1)

print("Seccessfully New Data Added in Previous Data")

print()

mfile.flush()

mfile.close()

mfile=open(r'Python.txt','r')

store=mfile.read()

sep=store.replace(',','<------->')

print(store)

print()

print(sep)

mfile.close()

**Output-13**

Enter Number Of Students in your Class :- 2

Please Enter Details for Student 1 Below :

Enter Roll No. :- 1

Enter Name :- Priyanshu

Enter his Overall Performance :- Very Good

Enter his Overall Rating out of 10 marks :- 10

Succesfully Written!!

Please Enter Details for Student 2 Below :

Enter Roll No. :- 2

Enter Name :- Divyansh

Enter his Overall Performance :- Good

Enter his Overall Rating out of 10 marks :- 9

Succesfully Written!!

File Closed!!!!!

File Re-Opened!!!!!

Enter Number Of Students in your Class :- 1

Please Enter Details for Student 1 Below :

Enter Roll No. :- 3

Enter Name :- Arya

Enter his Overall Performance :- Nice

Enter his Overall Rating out of 10 marks :- 7

Seccessfully New Data Added in Previous Data

1,Priyanshu,Very Good,10.0

2,Divyansh,Good,9.0

3,Arya,Nice,7.0

1<~~~)Priyanshu<~~~)Very Good<~~~)10.0

2<~~~)Divyansh<~~~)Good<~~~)9.0

3<~~~)Arya<~~~)Nice<~~~)7.0

**Program-13**

#Student Performance In Binary File

import pickle

mfile=open(r'Binary.dat','wb+')

c=int(input("Enter Number Of Students in your Class :- "))

for i in range (c):

print("Please Enter Details for Student",(i+1)," Below : ")

roln=int(input("Enter Roll No. :- "))

name=input("Enter Name :- ")

rating=input("Enter his Overall Performance :- ")

mark=float(input("Enter his Overall Rating out of 10 marks :- "))

insert="{0},{1},{2},{3}\n".format(roln,name,rating,mark)

pickle.dump(insert,mfile)

print("Succesfully Written!!")

print()

mfile.flush()

print('File Closed!!!!!')

mfile.close()

mfile=open(r'Binary.dat','ab')

print('File Re-Opened!!!!!')

c1=int(input("Enter Number Of Students in your Class :- "))

for x in range (c1):

print("Please Enter Details for Student",(x+1)," Below : ")

roln1=int(input("Enter Roll No. :- "))

name1=input("Enter Name :- ")

rating1=input("Enter his Overall Performance :- ")

mark1=float(input("Enter his Overall Rating out of 10 marks :- "))

insert1="{0},{1},{2},{3}\n".format(roln1,name1,rating1,mark1)

pickle.dump(insert1,mfile)

print("Seccessfully New Data Added in Previous Data")

print()

mfile.flush()

mfile.close()

mfile=open(r'Binary.dat','rb')

total=" "

try:

while True:

store=pickle.load(mfile)

total=total+store

print(store)

except EOFError:

sep=total.replace(',','<~~~)')

print(sep)

mfile.close()

**Output-14**

Enter Number Of Running Projects :- 3

Please Enter Details of Project 1 Below :

Enter Work Order No. :- 26541334

Enter Name of Work :- ARC for Horticulture Work

Enter Location of Work :- Delhi NCR

Enter Completion Percenage (%) :- 60

Enter Remarks :- Running Smoothly

Succesfully Written!!

Please Enter Details of Project 2 Below :

Enter Work Order No. :- 26549813

Enter Name of Work :- Maintenance of Gardens

Enter Location of Work :- Mathura

Enter Completion Percenage (%) :- 45

Enter Remarks :- KYC of Employee Pending

Succesfully Written!!

Please Enter Details of Project 3 Below :

Enter Work Order No. :- 013341731

Enter Name of Work :- ARC of Civil, Horticulture, Hydrojetting

Enter Location of Work :- Dibrugarh Assam

Enter Completion Percenage (%) :- 40

Enter Remarks :- Labour Licence Renewal Pending And Losses are Occuring

Succesfully Written!!

File Closed!!!!!

['Work Order No.', 'Name of Project', 'Location', 'Completion Percentage', 'Remark']

['26541334', 'ARC for Horticulture Work', 'Delhi NCR', '60', 'Running Smoothly']

['26549813', 'Maintenance of Gardens', 'Mathura', '45', 'KYC of Employee Pending']

['013341731', 'ARC of Civil, Horticulture, Hydrojetting', 'Dibrugarh Assam', '40', 'Labour Licence Renewal Pending And Losses are Occuring']

**Program-14**

#Contract Progess In CSV

import csv

Cfile=open(r'Contract.csv','w+',newline='')

c=int(input("Enter Number Of Running Projects :- "))

csvwrite=csv.writer(Cfile)

csvwrite.writerow(['Work Order No.','Name of Project','Location','Completion Percentage','Remark'])

for i in range (c):

print("Please Enter Details of Project",(i+1)," Below : ")

WO=input("Enter Work Order No. :- ")

Name=input("Enter Name of Work :- ")

Location=input("Enter Location of Work :- ")

Comp=input("Enter Completion Percenage (%) :- ")

Remark=input("Enter Remarks :- ")

insert=[WO,Name,Location,Comp,Remark]

csvwrite.writerow(insert)

print("Succesfully Written!!")

print()

print('File Closed!!!!!')

Cfile.flush()

Cfile.close()

with open('Contract.csv','r',newline='') as Cfile:

store=csv.reader(Cfile)

for row in store:

print(row)

'''sep=store.replace('Panipat','Delhi')

print(sep)

csvwrite.writerow(sep)'''

Cfile.close()

**Output-15**

Enter Roll No. :- 100

Enter Name :- Priyansh

Enter his Overall Performance :- Very Good

Enter his Overall Rating out of 10 marks :- 10

Succesfully Written!!

Want to enter more records( y/n ) :- y

Enter Roll No. :- 101

Enter Name :- Ansh

Enter his Overall Performance :- Good

Enter his Overall Rating out of 10 marks :- 8

Succesfully Written!!

Want to enter more records( y/n ) :- y

Enter Roll No. :- 102

Enter Name :- Kansh

Enter his Overall Performance :- Poor

Enter his Overall Rating out of 10 marks :- 1

Succesfully Written!!

Want to enter more records( y/n ) :- n

File Closed!!!!!

Enter Roll No. for Updating Marks : 102

Enter New Marks : 3

{'Rollno': 102, 'Name': 'Kansh', 'Rating': 'Poor', 'Marks': 3.0}

Record(s) Successfully Updated

**Program-15**

#Update data In Binary File

import pickle

st={}

mfile=open(r'Student1.dat','wb+')

ans='y'

while ans=='y':

roln=int(input("Enter Roll No. :- "))

name=input("Enter Name :- ")

rating=input("Enter his Overall Performance :- ")

mark=float(input("Enter his Overall Rating out of 10 marks :- "))

st['Rollno']=roln

st['Name']=name

st['Rating']=rating

st['Marks']=mark

pickle.dump(st,mfile)

print("Succesfully Written!!")

ans=input("Want to enter more records( y/n ) :- ")

mfile.flush()

mfile.close()

print('File Closed!!!!!')

student={}

found=False

rfile=open('Student1.dat','rb+')

n1=int(input("Enter Roll No. for Updating Marks : "))

n2=float(input("Enter New Marks : "))

rfile.seek(0)

try:

while True:

rpos=rfile.tell()

student=pickle.load(rfile)

if student['Rollno']==n1:

student['Marks']=n2

rfile.seek(rpos)

pickle.dump(student,rfile)

print(student)

found=True

except EOFError:

if found==False:

print("Sorry,No Matching record Found")

else:

print("Record(s) Successfully Updated")

rfile.close()

**Output-16**

{'Name': 'Priyanshu', 'Class': 'XII-B', 'Subject': 'Computer Sci.', 'Marks': 100}

Want to Modify Data (y/n) : Y

What you want to update or Add? : Marks

What is the updated value/ New Value ? : 99

Record Updated Successfully!!!!

{'Name': 'Priyanshu', 'Class': 'XII-B', 'Subject': 'Computer Sci.', 'Marks': '99'}

Want to Modify More Data (y/n) : y

What you want to update or Add? : Roll No

What is the updated value/ New Value ? : 10618

Record Updated Successfully!!!!

{'Name': 'Priyanshu', 'Class': 'XII-B', 'Subject': 'Computer Sci.', 'Marks': '99', 'Roll No': '10618'}

Want to Modify More Data (y/n) : Y

What you want to update or Add? : KEY

What is the updated value/ New Value ? : VALUE

Record Updated Successfully!!!!

{'Name': 'Priyanshu', 'Class': 'XII-B', 'Subject': 'Computer Sci.', 'Marks': '99', 'Roll No': '10618', 'KEY': 'VALUE'}

Want to Modify More Data (y/n) : N

**Program-16**

#Modification in the Dictionary Elements

st1={'Name':'Priyanshu','Class':'XII-B','Subject':'Computer Sci.','Marks':100}

print(st1)

ans=input("Want to Modify Data (y/n) : ")

while ans.upper()=='Y':

key=input("What you want to update or Add? : ")

value=input("What is the updated value/ New Value ? : ")

st1[key]=value

print('Record Updated Successfully!!!!')

print(st1)

ans=input("Want to Modify More Data (y/n) : ")

**Output-17**

CSV file Successfully Created and Data has been written in it!!!

['Name', 'Class', 'Subject', 'Marks']

['Priyanshu', 'XII-B', 'Maths', '96.2']

['Riyan', 'XII-B', 'English', '92']

['Priyansh', 'XII-B', 'Computer Science', '97']

['Anhu', 'XII-B', 'Physics', '89']

['Ansh', 'XII-B', 'Chemistry', '55']

['Riya', 'XII-E', 'Hindi', '51']

['Priya', 'XII-D', 'History', '52']

['Riyanshu', 'XII-D', 'Economics', '53']

['Riyansh', 'XII-B', 'Physical Edu.', '54']

['Priyan', 'XII-A', 'Biology', '69']

['Iyansh', 'XII-C', 'Accounts', '98']

**Program-17**

# List in tuple and Creating (at Once)& reading CSV File

import csv

heading=('Name','Class','Subject','Marks')

data=(['Priyanshu','XII-B','Maths',96.2],

['Riyan','XII-B','English',92],

['Priyansh','XII-B','Computer Science',97],

['Anhu','XII-B','Physics',89],

['Ansh','XII-B','Chemistry',55],

['Riya','XII-E','Hindi',51],

['Priya','XII-D','History',52],

['Riyanshu','XII-D','Economics',53],

['Riyansh','XII-B','Physical Edu.',54],

['Priyan','XII-A','Biology',69],

['Iyansh','XII-C','Accounts',98])

CSfile=open('Data.csv','w',newline='')

writer=csv.writer(CSfile)

writer.writerow(heading)

writer.writerows(data)

print("CSV file Successfully Created and Data has been written in it!!!\n")

CSfile.flush()

CSfile.close()

with open('Data.csv','r') as Cfile:

read=csv.reader(Cfile)

for row in read:

print(row)

CSfile.close()

**output-18**

The Complex No. in Python is shown as (-3-1j)

Real Part of Complex no. is -3.0

Imaginary part of Complex No. is -1.0

Example of List is ['Good', 'Night', 2, 'U', 'All']

Modified List is ['Good', 'Night', 2, 'only', 'me']

Tuple is Immutable i.e Non-Chnagebale, Ex. of Tuple is ('Have', 'a', 'GR8', 'Day')

The Example of Set is {'No.', 1, 2, 3, 4}

Exmaple of Dictionary In Python {'x': 5, 'y': 6}

The value of of y in Dictionary is 6

memory id of z 20766920

memory id of w (w=z) 20766920

**Program-18**

*#Showcase of Various data representations*

*z=(1+2.56j)+(-4-3.56j)  
print("The Complex No. in Python is shown as ", z)  
print("Real Part of Complex no. is ",z.real)  
print("Imaginary part of Complex No. is " ,z.imag)  
List=['Good', 'Night', 2, 'U', 'All' ]#mutable  
print ("Example of List is ", List)  
List[3],List[4]='only', 'me'  
print("Modified List is ", List)  
Tuple=('Have', 'a' ,'GR8', 'Day') #Immutable  
print("Tuple is Immutable i.e Non-Chnagebale, Ex. of Tuple is ", Tuple)  
Set={1,2,3,4,4,'No.'}  
print(" The Example of Set is ", Set)  
Dict={'x':5,'y':6}  
print("Exmaple of Dictionary In Python", Dict)  
print(" The value of of y in Dictionary is ", Dict['y'])  
w=z  
print("memory id of z ", id(z))  
print("memory id of w (w=z) ", id(w))#changing variables does not change memory location but changing value changes memory location*

*####STACK IMPLEMENTATION #####*

*def isEmpty(stk):*

*if stk==[]:return True*

*else: return False*

*def Push(stk,item):*

*stk.append(item)*

*O=len(stk)-1*

*def Pop(stk):*

*if isEmpty(stk):*

*return "Underflow"*

*else :*

*item=stk.pop()*

*if len(stk)==0:*

*O=None*

*else:*

*O=len(stk)-1*

*return item*

*def Peek(stk):*

*if isEmpty(stk):*

*return "Underflow"*

*else:*

*O=len(stk)-1*

*return stk[O]*

*def Display(stk):*

*if isEmpty(stk):*

*print("Stack is Empty")*

*else:*

*O=len(stk)-1*

*print(stk[O],"<---------Topmost Item")*

*for a in range (O-1,-1,-1):*

*print(stk[a])*

*#main*

*Stack=[]*

*O=None*

*while True:*

*print("STACK OPERATION")*

*print('''*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*''')*

*ch=int(input("Enter your Choice (1 - 5) : " ))*

*if ch==1:*

*item=int(input("Enter Item: "))*

*Push(Stack,item)*

*elif ch==2:*

*item=Pop(Stack)*

*if item==("Underflow"):*

*print("Underflow !! Stack is Empty")*

*else: print("Poppped Item is ",item)*

*elif ch==3:*

*item=Peek(Stack)*

*if item==("Underflow"):*

*print("Underflow !! Stack is Empty")*

*else: print("Topmost Item is ",item)*

*elif ch==4:*

*Display(Stack)*

*elif ch==5:*

*break*

*else: print ("Invalid Choice !!!!")*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 1*

*Enter Item: 10*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 1*

*Enter Item: 618*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 3*

*Topmost Item is 618*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 2*

*Poppped Item is 618*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 4*

*10 <---------Topmost Item*

*STACK OPERATION*

*1. Push*

*2. Pop*

*3. Peek*

*4. Display Stack*

*5. Exit*

*Enter your Choice (1 - 5) : 5*

####STACK EXPRESSION SOLVER #####

def OP(stk):

stkn=[]

stk2=[]

opp=[]

for x in range(0,len(stk)):

if (stk[x]).isdigit():

stkn.append(stk[x])

else :

opp.append(stk[x])

for y in range (0,len(opp)):

if len(stkn)>1:

if opp[y]=='+':

last=stkn.pop()

last2=stkn.pop()

ans=eval(last2)+eval(last)

stkn.append(str(ans))

del opp[0]

elif opp[y]=='-':

last=stkn.pop()

last2=stkn.pop()

ans=eval(last2)-eval(last)

stkn.append(str(ans))

del opp[0]

elif opp[y]=='\*':

last=stkn.pop()

last2=stkn.pop()

ans=eval(last2)\*eval(last)

stkn.append(str(ans))

del opp[0]

elif opp[y]=='/':

last=stkn.pop()

last2=stkn.pop()

ans=eval(last2)/eval(last)

stkn.append(str(ans))

del opp[0]

elif opp[y]=='\*\*':

last=stkn.pop()

last2=stkn.pop()

ans=eval(last2)\*\*eval(last)

stkn.append(str(ans))

del opp[0]

else : print('Invalid Expression')

return stkn

#main

answer='Y'

while answer.upper()=="Y":

print("STACK EXPRESION SOLVER VERSION 2.O ")

print()

Stack=input("Enter Expression Separted By Comma : ").split(',')

if len(Stack)>1:

print("The Result of the above Expression is",OP(Stack))

answer=input("Do you want to solve another Expression (Y/N) : ")

output

STACK EXPRESION SOLVER VERSION 2.O

Enter Expression Separted By Comma : 2,3,+

The Result of the above Expression is ['5']

Do you want to solve another Expression (Y/N) : Y

STACK EXPRESION SOLVER VERSION 2.O

Enter Expression Separted By Comma : 5,6,2,+,\*,12,4,/,-

The Result of the above Expression is ['37.0']

Do you want to solve another Expression (Y/N) : Y

STACK EXPRESION SOLVER VERSION 2.O

Enter Expression Separted By Comma : 30,5,2,\*\*,12,6,/,+,-

The Result of the above Expression is ['3.0']

Do you want to solve another Expression (Y/N) : N

#Connect MySQL using mysql.connector and Inserting Data

import mysql.connector as sqltor

mycon=sqltor.connect(host='localhost',user='root',

passwd='Admin123$',database='PJ')

print("Trying to Connect..................")

if mycon.is\_connected():

print("Connection to MySQL Databases Established Successfully")

cursor=mycon.cursor()

cursor.execute("CREATE TABLE EMP (ECODE INT(6) PRIMARY KEY, NAME VARCHAR(20) NOT NULL,DESIG CHAR(15) NOT NULL,GENDER CHAR DEFAULT 'M',DOJ DATE,LOCATION VARCHAR(20));")

ans='Y'

while ans.upper()=='Y':

ECODE=int(input("Enter Employee No. : "))

NAME=str(input("Enter Name of the Employee : "))

DESIG=str(input("Enter Designation of the Employee : "))

GENDER=str(input("Enter Gender of the Employee (M/F/T) : "))

DOJ=str(input("Enter Date of Joining of the Employee (YYYY-MM-DD) : "))

LOCATION=str(input("Enter Location of the Employee : "))

print()

ins="INSERT INTO EMP (ECODE,NAME,DESIG,GENDER,DOJ,LOCATION)VALUES('{}','{}','{}','{}','{}','{}')".format(ECODE,NAME,DESIG,GENDER,DOJ,LOCATION)

cursor.execute(ins)

mycon.commit()

print("SUCCESSFULLY INSERTED")

ans=input("Do you want to enter More Employee Data (Y/N) : ")

cursor.execute("SELECT \* FROM EMP")

data=cursor.fetchall()

for row in data:

print (row)

print ( "The Data Type is ", type(row))

output

Trying to Connect..................

Connection to MySQL Databases Established Successfully

Enter Employee No. : 1

Enter Name of the Employee : Priyanshu Jha

Enter Designation of the Employee : Manager

Enter Gender of the Employee (M/F/T) : M

Enter Date of Joining of the Employee (YYYY-MM-DD) : 2022-01-01

Enter Location of the Employee : Panipat

SUCCESSFULLY INSERTED

Do you want to enter More Employee Data (Y/N) : Y

Enter Employee No. : 2

Enter Name of the Employee : Manan

Enter Designation of the Employee : Assistant

Enter Gender of the Employee (M/F/T) : F

Enter Date of Joining of the Employee (YYYY-MM-DD) : 2022-02-01

Enter Location of the Employee : Karnal

SUCCESSFULLY INSERTED

Do you want to enter More Employee Data (Y/N) : N

(1, 'Priyanshu Jha', 'Manager', 'M', datetime.date(2022, 1, 1), 'Panipat')

(2, 'Manan', 'Assistant', 'F', datetime.date(2022, 2, 1), 'Karnal')

The Data Type is <class 'tuple'>

***Sources:-***

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**THANK YOU**