Task 18

## Deep Das

Question : Make basic calculator with operations +,-,\*,/

Answer:

class calc():

    def sum(operand1,operand2):

        return operand1+operand2

    def difference(operand1,operand2):

        return operand1-operand2

    def multiply(operand1,operand2):

        return operand1\*operand2

    def divide(operand1,operand2):

        return operand1/operand2

a=int(input("enter operand1 : "))

b=int(input("enter operand2 : "))

sign=input("enter operator :")

if sign=='+':

    print(calc.sum(a,b))

elif sign=='-':

    print(calc.difference(a,b))

elif sign=='\*':

    print(calc.multiply(a,b))

elif sign=='/':

    print(calc.divide(a,b))

else: print("proper input required.")

Question : To determine whether the given number is prime or not?

Answer:

def checkprime(num):

    for i in range(2,int(num/2)+1):

        if num%i==0:

            return False

    return True

number=int(input("enter the number to be checked prime :"))

if number==1:

        print("nor prime nor composite.")

if checkprime(number)==True:

    print("prime number.")

else:

    print("composite number. ")

Question : Write a program to solve quadratic equation.

Answer:

import math

def Qsolve(a, b, c):

    d = math.sqrt(b\*\*2 - 4\*a\*c)

    return [float((-b+d)/(2\*a)),float((-b-d)/(2\*a))]

a = int(input("coefficient of x^2: "))

b = int(input("coefficient of x: "))

c = int(input("constant: "))

print("roots of the given quadratic equation are:", Qsolve(a, b, c))

Question : find if string has a special character.

Answer :

import string

def has\_special\_character(s):

    special\_characters = string.punctuation + string.whitespace

    for char in s:

        if char in special\_characters:

            return True

    return False

str=input("enter the string to be checked : ")

if has\_special\_character(str) == True:

    print("it has special charachters.")

elif has\_special\_character(str)==False:

    print("it doesn't have special charachters.")