PYTHON PROJECT

TOPIC- SCIENTIFIC CALCULATOR

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Course code- INT108

LOVELY PROFESSIONAL UNIVERSITY

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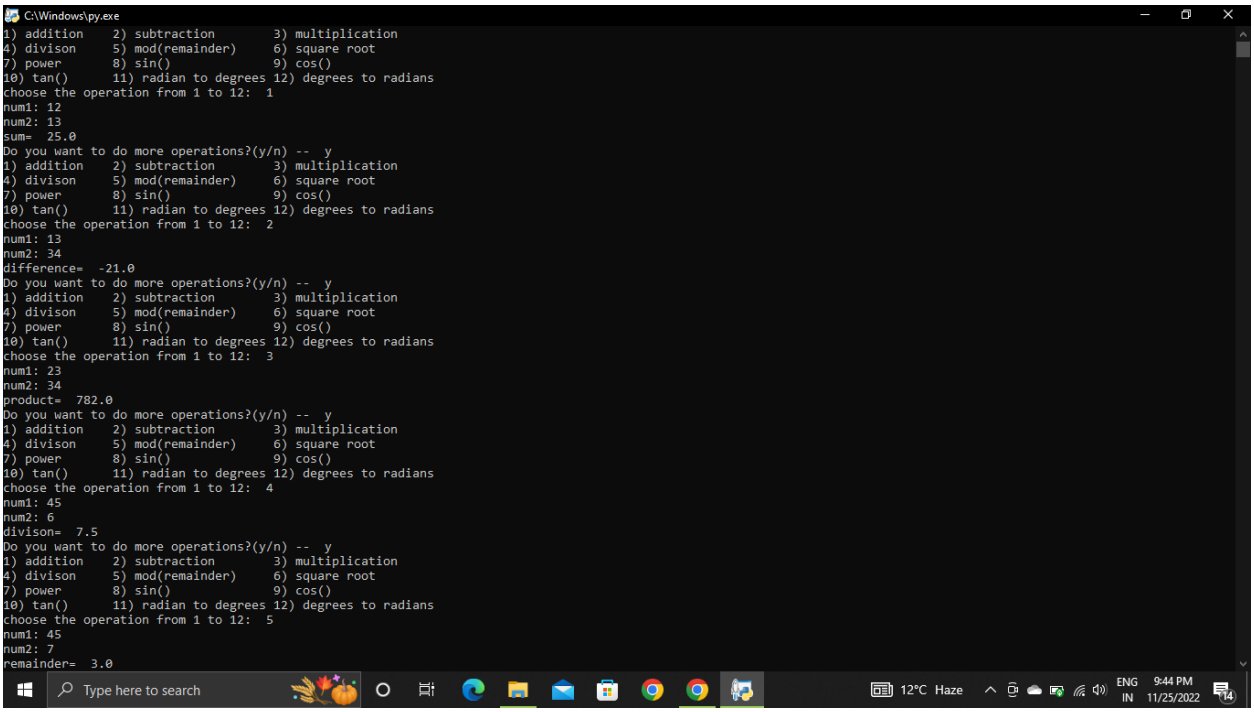
CODE:-

```
import math as m                #math module is imported
def add(num1,num2):                    # defining function to add two no's.
    sum=num1+num2
    print("sum= ",sum)
def sub(num1,num2):                    #defining function to subtract two no's.
    sub=num1-num2
    print("difference= ",sub)
def mult(num1,num2):                   #defining function to multiply two no's.
    product=num1*num2
    print("product= ",product)
def div(num1,num2):                    # defining function to diviide two no's.
    divison=num1/num2
    print("divison= ",divison)
def mod(num1,num2):                    #defining function to find remainder of two no's
    mod=num1%num2
    print("remainder= ",mod)
def sqrt(num):
    sqrt=m.sqrt(num)                   #defining function to find the square root of a no.
    print("square root= ",sqrt)
def pow(base,power):                   #defining function to find the  power .
    power=m.pow(base,power)
    print("power= ",power)
def sin(radian):                   # defining function to find the value of sine.
    sine=m.sin(radian)
    print("value of sine function= ",sine)
def cos(radian):                   #defining function to find the value of cosine.
    cosine=m.cos(radian)
    print("value of cosine function= ",cosine)
def tan(radian):                   #defining function to find the value of tangent.
   tangent=m.tan(radian)
   print("value of tangent function= ",tangent)
def degrees(radian):               #defining function to convert the radians to degrees.
    degrees=m.degrees(radian)
    print("degrees= ",degrees)
def rn(degree):                #defining function to convert the degrees to radians.
    radian=m.radians(degree)
    print("radian= ",radian)
while True:
    print("1) addition    2) subtraction        3) multiplication")
    print("4) divison     5) mod(remainder)     6) square root  ")
    print("7) power       8) sin()              9) cos() ")
    print("10) tan()      11) radian to degrees 12) degrees to radians")
    choice=int(input("choose the operation from 1 to 12:  "))           # entering the choice of
user.
```

```
if choice==1 or choice==2 or choice==3  or choice==4 or choice==5:
    num1=float(input("num1: "))
    num2=float(input("num2: "))
    if choice==1:
        add(num1,num2)
    elif choice==2:
        sub(num1,num2)
    elif choice==3:
        mult(num1,num2)
    elif choice==4:
        div(num1,num2)
    elif choice==5:
        mod(num1,num2)
elif choice==6:
    num=float(input("num: "))
    sqrt(num)
elif choice==7:
    base=float(input("base: "))
    power=float(input("power:"))
    pow(base,power)
elif choice==8 or choice==9 or choice==10 or choice==11:
    radian=float(input("radian: "))
    if choice==8:
        sin(radian)
    elif choice==9:
        cos(radian)
    elif choice==10:
        tan(radian)
    elif choice==11:
        degrees(radian)
elif choice==12:
    degree=float(input("degrees: "))
    rn(degree)
else:
    print(".................wrong choice.............")
cont_=input("Do you want to do more operations?(y/n) --  ")
if cont_=="y" or cont_=="Y":
    continue                        # use of continue statement to do more operations.
else:
    print("...E..X..I..T...")
    break                           #use of break statements to close the loop.
```

OUTPUT:-


C:\Windows\py.exe
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 1
num1: 12
num2: 13
sum= 25.0
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 2
num1: 13
num2: 34
difference= -21.0
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 3
num1: 23
num2: 34
product= 782.0
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 4
num1: 45
num2: 6
divison= 7.5
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 5
num1: 45
num2: 7
remainder= 3.0
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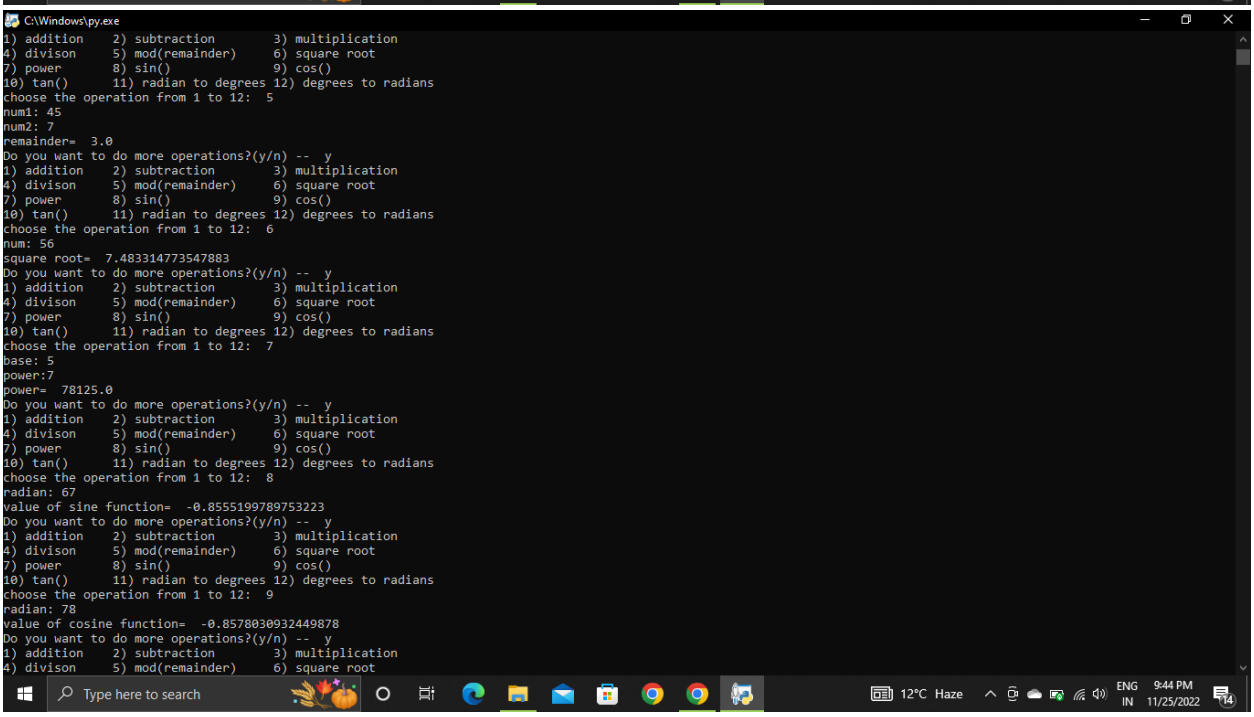
C:\Windows\py.exe
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 5
num1: 45
num2: 7
remainder= 3.0
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 6
num: 56
square root= 7.483314773547883
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 7
base: 5
power:7
power= 78125.0
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 8
radian: 67
value of sine function= -0.8555199789753223
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
7) power 8) sin() 9) cos()
10) tan() 11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 9
radian: 78
value of cosine function= -0.8578030932449878
Do you want to do more operations?(y/n) -- y
1) addition 2) subtraction 3) multiplication
4) divison 5) mod(remainder) 6) square root
Type here to search
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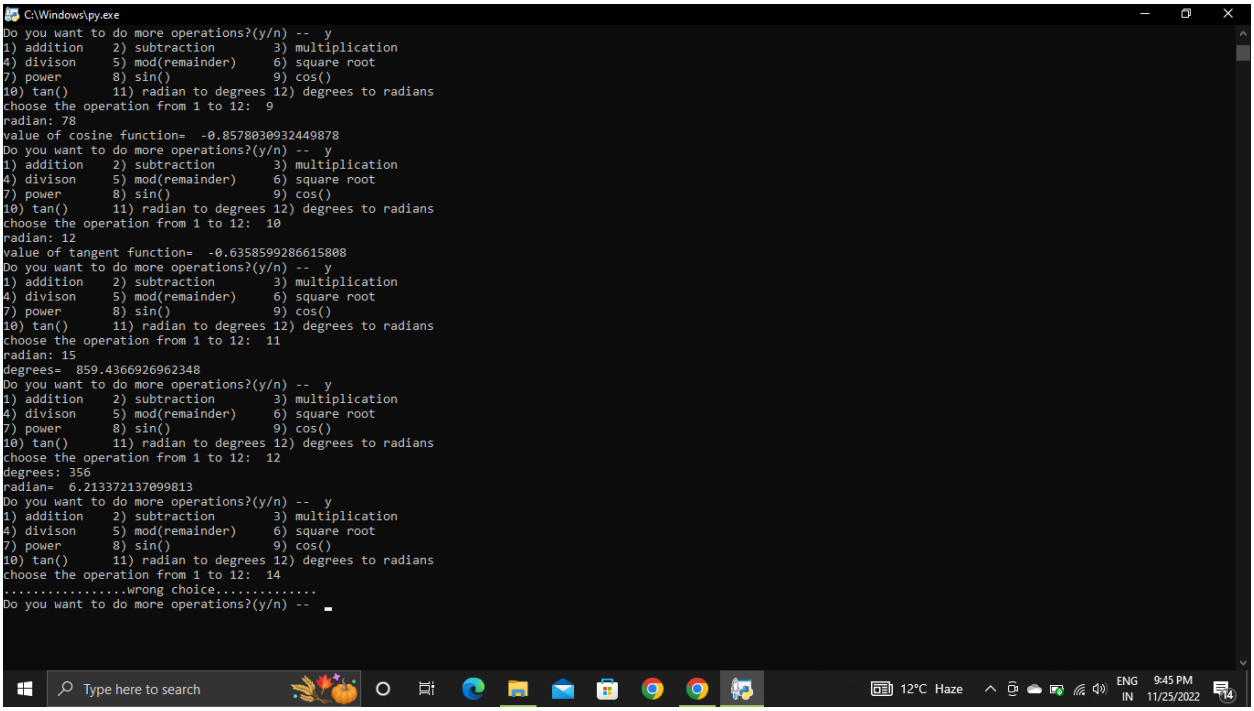
C:\Windows\py.exe
Do you want to do more operations?(y/n) -- y
1) addition   2) subtraction   3) multiplication
4) divison   5) mod(remainder)   6) square root
7) power   8) sin()   9) cos()
10) tan()   11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 9
radian: 78
value of cosine function= -0.8578030932449878
Do you want to do more operations?(y/n) -- y
1) addition   2) subtraction   3) multiplication
4) divison   5) mod(remainder)   6) square root
7) power   8) sin()   9) cos()
10) tan()   11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 10
radian: 12
value of tangent function= -0.6358599286615808
Do you want to do more operations?(y/n) -- y
1) addition   2) subtraction   3) multiplication
4) divison   5) mod(remainder)   6) square root
7) power   8) sin()   9) cos()
10) tan()   11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 11
radian: 15
degrees= 859.4366926962348
Do you want to do more operations?(y/n) -- y
1) addition   2) subtraction   3) multiplication
4) divison   5) mod(remainder)   6) square root
7) power   8) sin()   9) cos()
10) tan()   11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 12
degrees: 356
radian= 6.213372137099813
Do you want to do more operations?(y/n) -- y
1) addition   2) subtraction   3) multiplication
4) divison   5) mod(remainder)   6) square root
7) power   8) sin()   9) cos()
10) tan()   11) radian to degrees 12) degrees to radians
choose the operation from 1 to 12: 14
.................wrong choice.............
Do you want to do more operations?(y/n) --
Type here to search
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