

A MINI PROJECT

SCIENTIFIC CALCULATOR



UNDER THE GUIDANCE -- MS. ANKITA WADHAWAN

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TECHNOLOGIES USED

PYTHON –

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics developed by Guido van Rossum. It was originally released in 1991.

This project uses:

- ☐ import function
- ☐ Print function
- ☐ while loop
- ☐ if elif statement

ABOUT PROJECT

TITLE : -- SCIENTIFIC CALCULATOR

OBJECTIVE : -- To build a scientific calculator that performs several functionalities respectively

DESCRIPTION : --

This Calculator is able to perform --

- ✓ Add, sub, multiply, divide, and mod (%) operations on entered integer or floating type numbers.
- ✓ Square root, exponent
- ✓ Sine, cosine, and tangent (Trigonometric functions).
- ✓ Conversion from radian to degree and degree to radian.

```
import math
print("\nSCIENTIFIC CALCULATOR\n")
print("Type 'a' for addition")
print("Type 's' for subtraction")
print("Type 'm' for multiply")
print("Type 'd' for divide")
print("Type 'sq' for Square Root")
print("Type 'exp' for Exponent(Power(a,b))")
print("Type 'sin' for Sine Function")
print("Type 'cos' for Cosine Function")
print("Type 'tan' for Tangent Function")
print("Type 'rad' to Change from Radian to Degree")
print("Type 'deg' to Change from Degree to Radian")
print("Type 'exit' to take Exit From Program")

while True:

    choice = str(input("\nYour Choice: "))
    if choice=='a':
        n=int(input("How many Numbers you want to add: "))
        s=0
        for i in range(1,n+1):
            add=eval(input("Number: "))
            s+=add
        print("Sum is: ",s)
    elif choice=='s':
        num1= eval(input("Num1: "))
        num2= eval(input("Num2: "))
        print("Subtraction of Entered Number is: ",num1-num2)
```



```
elif choice=='sq':
    num=eval(input("Enter Number of which you want to find Square Root: "))
    print("Square root is: ",math.sqrt(num))
elif choice=='exp':
    num1=eval(input("Exponent: "))
    num2=eval(input("Power: "))
    print("Result: ", num1**num2)
elif choice=='sin':
    val=eval(input("Value(Sin_): "))
    print("Result ", math.sin(val))
elif choice=='cos':
    val=eval(input("Value(Cos_): "))
    print("Result ", math.cos(val))
elif choice=='tan':
    val=eval(input("Value(Tan_): "))
    print("Result ", math.tan(val))
elif choice=='rad':
    val=eval(input("Radian: "))
    print("Degree", math.degrees(val))
elif choice=='deg':
    val=eval(input("Degree: "))
    print("Radian", math.radians(val))
elif choice=='exit':
    break
else:
    print("\nInvalid Input!")
print("\nPROJECT COMPLETE .... THANK YOU")
```

THANKING

YOU.....