

Additional Project [Calculator]

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Code:

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print("")
print("Calculator Application:")

def calculator():
    print("")
    operand=input("Choose [ + | - | * | / | % | e | log | antilog | powers | roots ] (further operations will be added soon)\nEnter the Operation: ")
    print("")
    ops=["+", "-", "*", "/", "e", "log", "antilog", "powers", "roots"]

    if operand not in ops:
        print("")
        print('Invalid operation')

    elif operand=="e":
        coefficient=int(input("Enter the Coefficient Value: "))
        power=int(input("Enter the Power Value: "))
        operation=coefficient*(10**power)
        operation_string_e=str(coefficient)+"e"+str(power)
        print("")
        print(operation_string_e+" "+"=" ,operation)

    elif operand=="log":
        coefficient=int(input('Enter the Co-efficient Value: '))
        base=int(input("Enter the Base Value: "))
        start=1
        end=coefficient*10
        for log in range(start,end):
            if base**log==coefficient:
                break

        operation_string_log="log"+"("+str(base)+")"+str(coefficient)
        if base**log==coefficient:
            print(operation_string_log,"=",log)

    elif operand=="antilog":
        base=int(input("Enter the Base value: "))
        power=int(input("Enter the Power value: "))
        antilog=base**power
        operation_string_antilog="Antilog("+str(base)+")"+str(power)
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    print(operation_string_antilog+"=",antilog)

elif operand=="roots":
    base=int(input("Enter the base value: "))
    root=int(input("Enter the nthroot value: "))
    operation=base**(1/root)
    operation_string_root=str(base)+"**"+"1/"+str(root)
    print(operation_string_root," ","="," ",operation)

elif operand=="powers":
    base=int(input("Enter the base value:"))
    power=int(input("Enter the power value:"))
    operation=base**power
    operation_string_powers=str(base)+"**"+str(power)
    print(operation_string_powers," ","="," ",operation)

else:
    first_num=float(input("Enter the First Number: "))
    print("")

    second_num=float(input("Enter the Second Number: "))
    operation_string=str(first_num)+" "+(' '+operand+' '+' '+str(second_num)

    if operand=="+":
        operation=first_num+second_num
        print("")
        print(operation_string+" "+"="," ",operation)

    elif operand=="-":
        operation=first_num-second_num
        print("")
        print(operation_string+" "+"="," ",operation)

    elif operand=="*":
        operation=first_num*second_num
        print("")
        print(operation_string+" "+"="," ",operation)

    elif operand=="/":
        operation=first_num/second_num
        print("")
        print(operation_string+" "+"="," ",operation)

    elif operand=="%":
        operation=first_num%second_num

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        print("")
        print(operation_string+" "+"=",operation)

    print("")
    print("Choose: [Continue|Exit]")
    print("On Option, type Continue to use the calculator again & type Exit to
exit the application")
    print("")

    option=input("Enter your option: ")
    if option=="Continue" or option == "continue":
        print("")
        print("Values reset.")
        print("Continue!!!")
        calculator()
    elif option=="Exit" or option=="exit":
        print("")
        print("Thanks for using this Application!!!")
    else:
        print("")
        print("Invalid option (Auto Exiting>>>)")
calculator()
```