##### Title: Intermediate Python Methods

The following code allows the user to input two numbers and choose an operation to perform (addition, subtraction, multiplication, or division). It then performs the corresponding calculation and displays the result. You can run this code in any Python environment, such as an online compiler or a local Python installation, to create a simple calculator that can perform basic arithmetic operations. Feel free to customise and extend the code to add more functionalities or improve the user experience!

It is important to note that there are many ways in which to create a calculator and additional resources are provided at the end so you can explore this.

# Step 1: Getting Input from the User

# Ask the user for the first number

num1 = float(input("Enter the first number: "))

# Ask the user for the second number

num2 = float(input("Enter the second number: "))

# Step 2: Performing Calculations

# Ask the user for the operation to perform

operation = input("Enter the operation (+, -, \*, /): ")

# Perform the corresponding calculation based on the user's input

if operation == "+":

result = num1 + num2

elif operation == "-":

result = num1 - num2

elif operation == "\*":

result = num1 \* num2

elif operation == "/":

result = num1 / num2

else:

print("Invalid operation!")

exit()

# Step 3: Displaying the Result

# Print the result to the console

print("Result: ", result)

#### Step by Step Guide

##### Step 1: Getting Input from the User

# Ask the user for the first number

num1 = float(input("Enter the first number: "))

# Ask the user for the second number

num2 = float(input("Enter the second number: "))

In this step, the code uses the input() function to get input from the user. The input() function displays a prompt to the user and waits for them to enter a value. The entered value is then stored in the variables num1 and num2 after converting it to a float using the float() function. The float() function is used to convert the input to a floating-point number, which allows for decimal inputs.

##### Step 2: Performing Calculations

# Ask the user for the operation to perform

operation = input("Enter the operation (+, -, \*, /): ")

# Perform the corresponding calculation based on the user's input

if operation == "+":

result = num1 + num2

elif operation == "-":

result = num1 - num2

elif operation == "\*":

result = num1 \* num2

elif operation == "/":

result = num1 / num2

else:

print("Invalid operation!")

exit()

In this step, the code asks the user for the operation they want to perform using the input() function and stores it in the variable operation. The code then uses conditional statements (if, elif, else) to determine the corresponding calculation to perform based on the value of operation. If the input is valid, the result of the calculation is stored in the variable result. If the input is not valid, the code displays an error message and exits the program using the print() and exit() functions.

##### Step 3: Displaying the Result

# Print the result to the console

print("Result: ", result)

In this step, the code uses the print() function to display the result of the calculation to the console, along with a label "Result:". The result variable contains the calculated result from the previous step, and it is displayed as the output of the calculator.

##### Additional Resources:

<https://www.programiz.com/python-programming/examples/calculator>

<https://www.digitalocean.com/community/tutorials/how-to-make-a-calculator-program-in-python-3>