*ASSIGEMENT ---1*

# Take two numbers as input from the user

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

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

# Perform arithmetic operations

addition = num1 + num2

subtraction = num1 - num2

multiplication = num1 \* num2

division = num1 / num2 (if num2 != 0)

# Display results in a clear format

print("\nArithmetic Operations Results:")

print("-----------------------------")

print(f"Addition: {num1} + {num2} = {addition}")

print(f"Subtraction: {num1} - {num2} = {subtraction}")

print(f"Multiplication: {num1} \* {num2} = {multiplication}")

# Handle division by zero error

if num2 != 0:

print(f"Division: {num1} / {num2} = {division}")

else:

print("Error: Division by zero is undefined.")

To run this code in Jupyter Notebook:

1. Open Jupyter Notebook.

2. Create a new cell.

3. Copy and paste the code into the cell.

4. Run the cell using Shift+Enter or the "Run" button.

ASSIGEMENT -----2

def process\_sentence():

# Take sentence as input from user

sentence = input("Please enter a sentence: ")

# Display original sentence

print("Original Sentence:")

print(sentence)

# Display sentence in all uppercase

print("\nSentence in Uppercase:")

print(sentence.upper())

# Display sentence in all lowercase

print("\nSentence in Lowercase:")

print(sentence.lower())

# Display total number of characters

print("\nTotal Number of Characters:")

print(len(sentence))

# Call the function

process\_sentence()

\*\*Example Use Case:\*\*

Please enter a sentence: Hello, World!

Original Sentence:

Hello, World!

Sentence in Uppercase:

HELLO, WORLD!

Sentence in Lowercase:

hello, world!

Total Number of Characters:

14

\*\*Explanation:\*\*

1. The program defines a function `process\_sentence()` to encapsulate the logic.

2. It prompts the user to enter a sentence using `input()`.

3. The original sentence is printed.

4. The `upper()` method converts the sentence to uppercase.

5. The `lower()` method converts the sentence to lowercase.

6. The `len()` function calculates the total number of characters.

7. Finally, the function is called to execute the program.