Assignment-4

**(Calculator API)**

You need to build a Calculator API Contract application which performs the following operations:

* Addition
* Subtraction
* Multiplication
* Division

Before you start implementing the above operations, you need to check that your server is working fine. For that, perform a GET request which lets you land on the home page successfully with the message Hello world!. After that, you need to implement the following **POST** requests: The input may contain positive, negative, and floating-point numbers. Request body parameters for all endpoints:

* num1
* num2

1. **/add**

Response:

{ status: “success"|"failure"|"error”,

message: “the sum of given two numbers”,

sum: num1+num2 }

2. **/sub**

Response:

{ status: “success"|"failure"|"error”,

message: “the difference of given two numbers”,

difference: num1-num2 }

3. **/multiply**

Response:

{ status: “success”|”failure”|”error”,

message: “The product of given numbers”,

result: num1\*num2 }

4. **/divide**

Response:

{ status: “success"|"failure"|"error”,

message: “The division of given numbers”,

result: num1/num2 }

5. The status should be **"error"** in the following cases:

* num2 is 0 for endpoint **/divide**. In this case, the message should be "Cannot divide by zero"
* The request body parameters contain values less than -1M(10 lakhs), or the result is < -1M. In this case, the message should be "Underflow"
* The request body parameters contain values above 1M(10 lakhs), or the sum is > 1M. In this case, the message should be "Overflow"
* The request body parameters contain Strings. In this case, the message should be "Invalid data types".

**Note: Please keep in mind you need to print messages as stated in the problem statement"**

**Submission steps:**

**Please download the zip file. Complete the template code and submit it.**

**Zip file link:** [**https://drive.google.com/file/d/1Lzl8dC23sT-j6OMAyVd8S76H8sFrPyaF/view?usp=sharing**](https://drive.google.com/file/d/1Lzl8dC23sT-j6OMAyVd8S76H8sFrPyaF/view?usp=sharing)