

Project Documentation : Flask-based Calculator

Project overview:

A simple calculator web application built using Flask, supporting basic arithmetic operations: addition, subtraction, multiplication, and division.

Key features:

- Offering Endpoints for performing mathematical operations (addition, subtraction, multiplication, division)
- Handles division by zero

Setup and installation:

- Clone the repository

Run the following command to clone the project repository:

```
git clone https://github.com/melynda08/FlaskCalculator.git
```

- Navigate to the project directory

```
cd FlaskCalculator
```

- Install the dependencies

Install the required dependencies by running:

```
pip install -r requirements.txt
```

Usage instruction:

- Start the Flask server:
To start the Flask application, run the following command:

```
'python app.py'
```

- Access the Application:
Open your web browser and go to:

```
'http://127.0.0.1:5000/ '
```

Example Usage:

Once the Flask server is running, you can perform the following arithmetic operations by making POST requests to the corresponding routes. Below are examples of each operation with sample inputs.

1. Addition

- Endpoint: `/add`
- Method: `POST`
- URL: `http://localhost:5000/add/10/20`

Response:

```
{  
  
  "result": 30  
  
  'status':200  
  
}
```

2. Subtraction:

- Endpoint: `/minus`
- Method: `POST`
- URL: `http://localhost:5000/minus/20/10`

Response:

```
{  
  
  "result": 10  
  
  'status':200  
  
}
```

3. Multiplication:

- Endpoint: `/multiply`
- Method: `POST`
- URL: `http://localhost:5000/multiply/20/10`

Response:

```
{  
  
  "result": 200  
  
  'status':200  
  
}
```

```
}
```

4. Division:

- Endpoint: `/divide`
- Method: `POST`
- URL: `http://localhost:5000/divide/20/10`

Response:

```
{  
  
  "result": 2  
  
  'status':200  
  
}
```

Project Structure:

The Flask Calculator project is organized into individual Python files for each arithmetic operation:

- **app.py**: The main Flask application file that defines routes for each operation.
- **add.py**: Contains the function for adding two numbers.
- **minus.py**: Handles subtraction.
- **multiply.py**: Handles multiplication.
- **divide.py**: Handles division.
- **requirements.txt**: Lists the necessary dependencies for running the application.

