

Assign 7

api.py

```
from flask import Flask, request

app = Flask(__name__)

@app.route("/add", methods=["POST"])
def add():
    data = request.get_json()
    num1 = data["num1"]
    num2 = data["num2"]
    result = num1 + num2
    return str(result)

@app.route("/subtract", methods=["POST"])
def subtract():
    data = request.get_json()
    num1 = data["num1"]
    num2 = data["num2"]
    result = num1 - num2
    return str(result)

@app.route("/multiply", methods=["POST"])
def multiply():
    data = request.get_json()
    num1 = data["num1"]
    num2 = data["num2"]
    result = num1 * num2
    return str(result)

@app.route("/divide", methods=["POST"])
def divide():
    data = request.get_json()
    num1 = data["num1"]
    num2 = data["num2"]
    result = num1 / num2
    return str(result)
```

```
if __name__ == "__main__":  
    app.run(debug=True)
```

app.py

```
from flask import Flask, render_template, request  
import requests  
import json  
  
app = Flask(__name__)  
  
@app.route("/")  
def home():  
    return render_template("index.html")  
  
@app.route("/calculate", methods=["POST"])  
def calculate():  
    num1 = int(request.form["num1"])  
    num2 = int(request.form["num2"])  
    operation = request.form["operation"]  
  
    payload = {"num1": num1, "num2": num2}  
  
    if operation == "add":  
        url = "http://localhost:5000/add"  
    elif operation == "subtract":  
        url = "http://localhost:5000/subtract"  
    elif operation == "multiply":  
        url = "http://localhost:5000/multiply"  
    elif operation == "divide":  
        url = "http://localhost:5000/divide"  
  
    response = requests.post(url, json=payload)  
    result = json.loads(response.text)  
  
    return render_template("result.html", result=result)  
  
if __name__ == "__main__":  
    app.run(debug=True, port=3000)
```

index.html

```
<!DOCTYPE html>  
<html>  
    <head>
```

```
<title>Calculator Web App</title>
</head>
<body>
  <h1>Calculator Web App</h1>
  <form action="/calculate" method="POST">
    <label for="num1">Number 1:</label>
    <input type="number" id="num1" name="num1" required /><br />

    <label for="num2">Number 2:</label>
    <input type="number" id="num2" name="num2" required /><br />

    <label for="operation">Operation:</label>
    <select id="operation" name="operation" required>
      <option value="add">Addition</option>
      <option value="subtract">Subtraction</option>
      <option value="multiply">Multiplication</option>
      <option value="divide">Division</option></select>
    <br />

    <input type="submit" value="Calculate" />
  </form>
</body>
</html>
```

result.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Calculator Web App - Result</title>
  </head>
  <body>
    <h1>Calculator Web App - Result</h1>
    <p>The result is: {{ result }}</p>
    <a href="/">Go Back</a>
  </body>
</html>
```

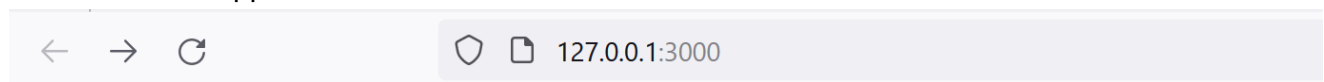
api

```
PS D:\Acad\DS Assign\Assign7> python api.py
* Serving Flask app 'api'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5001
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 917-801-138
127.0.0.1 - - [16/Apr/2024 18:15:16] "POST /multiply HTTP/1.1" 200 -
[]
```

app

```
PS D:\Acad\DS Assign\Assign7> python app.py
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:3000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 917-801-138
127.0.0.1 - - [16/Apr/2024 18:15:01] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [16/Apr/2024 18:15:01] "GET /favicon.ico HTTP/1.1" 404 -
127.0.0.1 - - [16/Apr/2024 18:15:16] "POST /calculate HTTP/1.1" 200 -
[]
```

Calculator web app



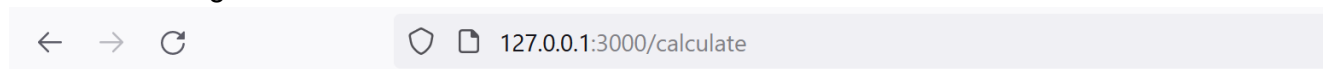
Calculator Web App

Number 1:

Number 2:

Operation:

Result Web Page



Calculator Web App - Result

The result is: 1386

[Go Back](#)