Flask and MongoDB Assignment

# 1. Flask API Route Reading JSON from File

app.py Code:  
from flask import Flask, jsonify  
import json  
  
app = Flask(\_\_name\_\_)  
  
@app.route("/api")  
def get\_data():  
 with open('data.json', 'r') as file:  
 data = json.load(file)  
 return jsonify(data)  
  
if \_\_name\_\_ == "\_\_main\_\_":  
 app.run(debug=True)  
  
data.json File:  
[  
 {"name": "Alice", "score": 90},  
 {"name": "Bob", "score": 85}  
]  
  
Sample Output (http://127.0.0.1:5000/api):  
[  
 {  
 "name": "Alice",  
 "score": 90  
 },  
 {  
 "name": "Bob",  
 "score": 85  
 }  
]  
  
[📸 Screenshot Placeholder: Browser view of JSON response]

# 2. Frontend Form with MongoDB Atlas Integration

app.py Code:  
from flask import Flask, render\_template, request, redirect, flash  
from pymongo import MongoClient  
  
app = Flask(\_\_name\_\_)  
app.secret\_key = 'your\_secret\_key'  
  
client = MongoClient("your\_mongodb\_atlas\_uri")  
db = client['student\_db']  
collection = db['records']  
  
@app.route("/", methods=["GET", "POST"])  
def form():  
 if request.method == "POST":  
 try:  
 name = request.form['name']  
 score = int(request.form['score'])  
 collection.insert\_one({"name": name, "score": score})  
 return render\_template("success.html")  
 except Exception as e:  
 flash(f"Error: {str(e)}")  
 return render\_template("form.html")  
 return render\_template("form.html")  
  
@app.route("/success")  
def success():  
 return render\_template("success.html")  
  
if \_\_name\_\_ == "\_\_main\_\_":  
 app.run(debug=True)  
  
form.html:  
<!DOCTYPE html>  
<html>  
<head><title>Submit Data</title></head>  
<body>  
 <h2>Enter Details</h2>  
 {% with messages = get\_flashed\_messages() %}  
 {% if messages %}  
 <ul>  
 {% for msg in messages %}  
 <li style="color:red;">{{ msg }}</li>  
 {% endfor %}  
 </ul>  
 {% endif %}  
 {% endwith %}  
 <form method="POST">  
 Name: <input type="text" name="name" required><br>  
 Score: <input type="number" name="score" required><br>  
 <input type="submit" value="Submit">  
 </form>  
</body>  
</html>  
  
success.html:  
<!DOCTYPE html>  
<html>  
<head><title>Success</title></head>  
<body>  
 <h2>Data submitted successfully</h2>  
 <a href="/">Go back</a>  
</body>  
</html>