1. Create a Flask application with an /api route. When this route is accessed, it should return a JSON list. The data should be stored in a backend file, read from it, and sent as a response.

1. [**app.py**](http://app.py)**:**

from flask import Flask, jsonify

import json

app = Flask(\_\_name\_\_)

@app.route('/api')

def get\_data():

try:

with open('data.json', 'r') as file:

data = json.load(file)

return jsonify(data)

except Exception as e:

return jsonify({'error': str(e)}), 500

if \_\_name\_\_ == '\_\_main\_\_':

app.run(debug=True)

1. **data.json:**

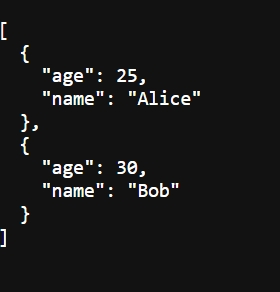
[

{"name": "Alice", "age": 25},

{"name": "Bob", "age": 30}

]

**OUTPUT :**



2. Create a form on the frontend that, when submitted, inserts data into MongoDB Atlas. Upon successful submission, the user should be redirected to another page displaying the message **"Data submitted successfully"**. If there's an error during submission, display the error on the same page without redirection.

1. **app.py:**

from flask import Flask, jsonify, request, render\_template, redirect, url\_for

import json

from pymongo import MongoClient

from pymongo.errors import PyMongoError

app = Flask(\_\_name\_\_)

client = MongoClient("mongodb+srv://surajp7275:ahDzL2Cw5o5Vyfxt@cluster0.cwpzudp.mongodb.net/")

db = client["testdb"]

collection = db["testcollection"]

@app.route('/api')

def get\_data():

try:

with open('data.json', 'r') as f:

data = json.load(f)

return jsonify(data)

except Exception as e:

return jsonify({'error': str(e)}), 500

@app.route('/', methods=['GET', 'POST'])

def form():

error = None

if request.method == 'POST':

name = request.form.get('name')

age = request.form.get('age')

if not name or not age:

error = "All fields are required."

else:

try:

collection.insert\_one({'name': name, 'age': int(age)})

return redirect(url\_for('success'))

except PyMongoError as e:

error = f"Database Error: {e}"

return render\_template('form.html', error=error)

@app.route('/success')

def success():

return "Data submitted successfully"

if \_\_name\_\_ == '\_\_main\_\_':

app.run(debug=True)

1. **data.json:**

[

{"name": "Alice", "age": 25},

{"name": "Bob", "age": 30}

]

1. **templates/form.html:**

<!DOCTYPE html>

<html>

<head>

<title>Form Submission</title>

</head>

<body>

<h1>Enter User Info</h1>

{% if error %}

<p style="color:red;">{{ error }}</p>

{% endif %}

<form method="POST">

<label>Name: <input type="text" name="name"></label><br><br>

<label>Age: <input type="number" name="age"></label><br><br>

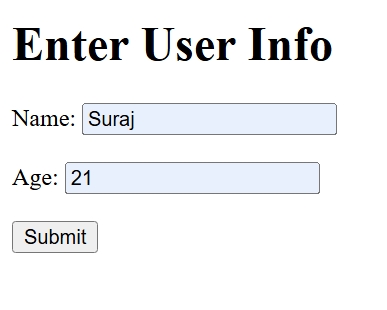
<input type="submit" value="Submit">

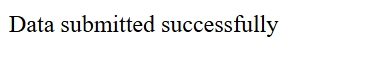
</form>

</body>

</html>

**OUTPUT:**



****