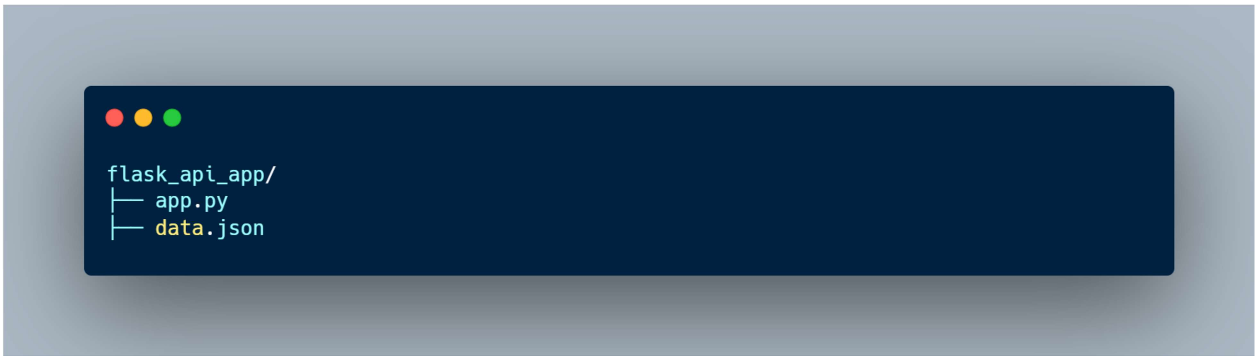
Assignment - 3

Task - 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.

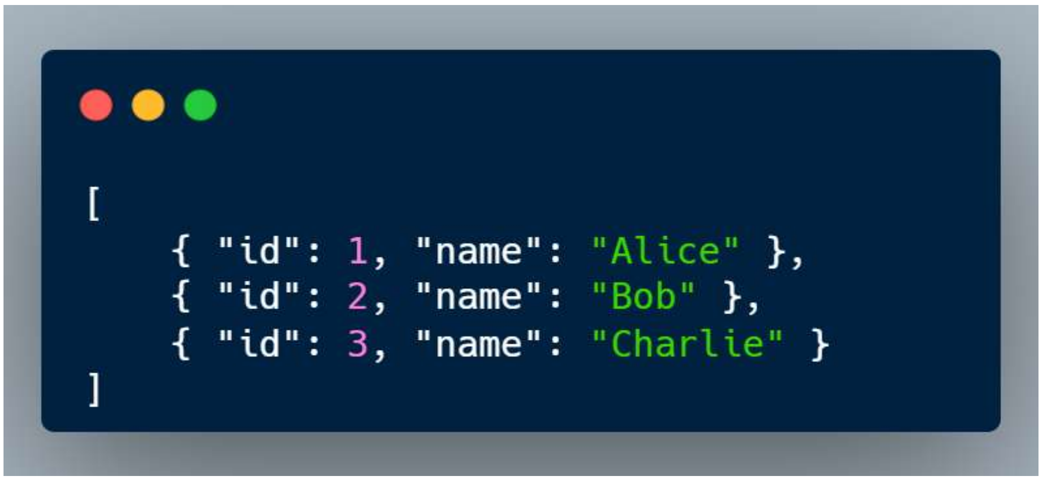
File Structure:



```
flask_api_app/
├── app.py
├── data.json
```

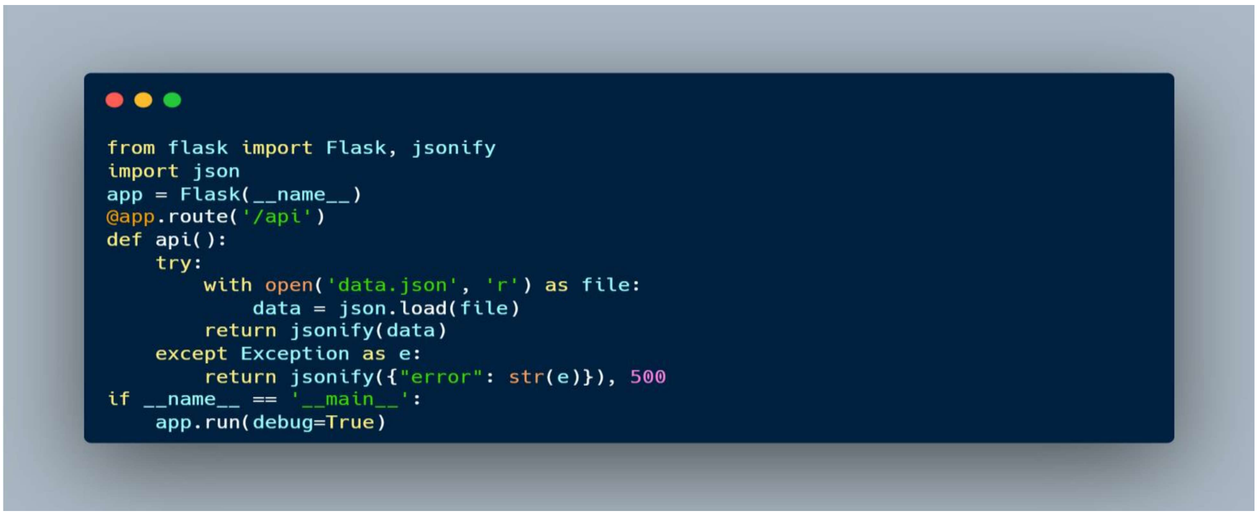
data.json - Sample Data File

Create a file named data.json with the following content:



```
[
    { "id": 1, "name": "Alice" },
    { "id": 2, "name": "Bob" },
    { "id": 3, "name": "Charlie" }
]
```

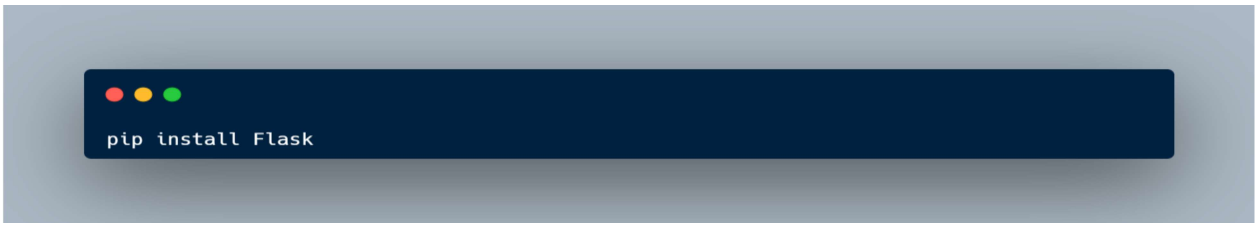
app.py - Flask Application



```python
from flask import Flask, jsonify
import json
app = Flask(__name__)
@app.route('/api')
def api():
    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)
```

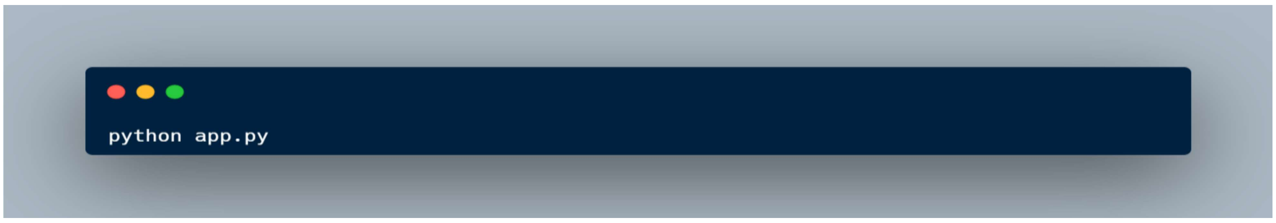
How to Run

1. Make sure Flask is installed:



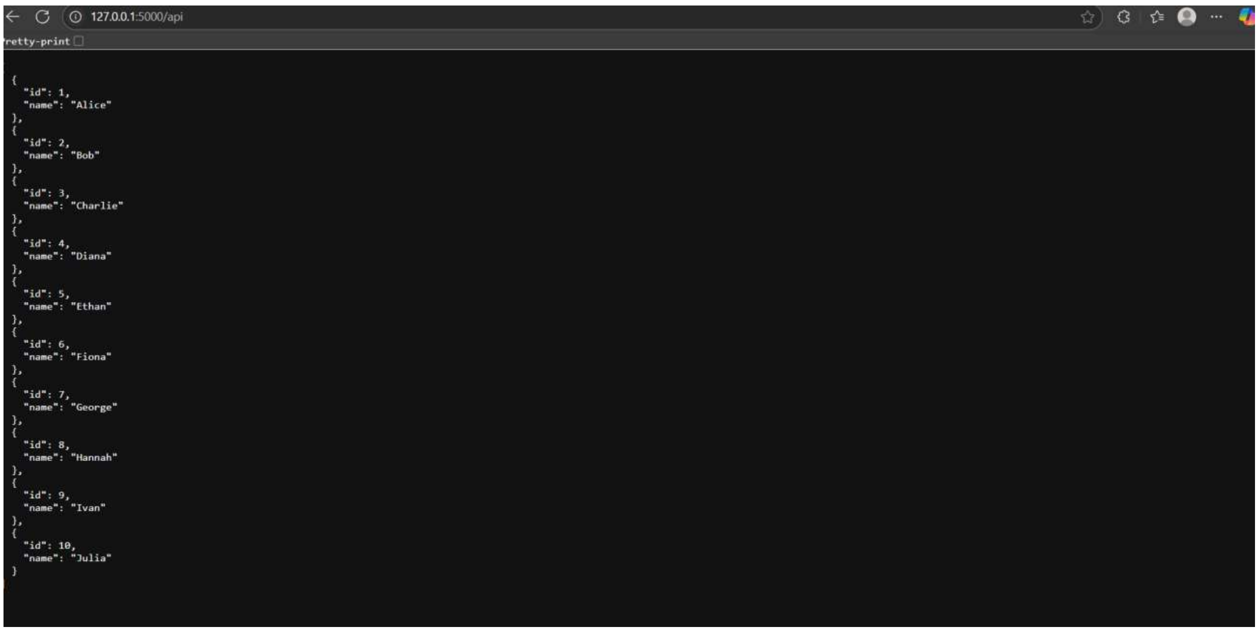
```
pip install Flask
```

2. Run the app:



```
python app.py
```

Screenshot:



```
{
  "id": 1,
  "name": "Alice"
},
{
  "id": 2,
  "name": "Bob"
},
{
  "id": 3,
  "name": "Charlie"
},
{
  "id": 4,
  "name": "Diana"
},
{
  "id": 5,
  "name": "Ethan"
},
{
  "id": 6,
  "name": "Fiona"
},
{
  "id": 7,
  "name": "George"
},
{
  "id": 8,
  "name": "Hannah"
},
{
  "id": 9,
  "name": "Ivan"
},
{
  "id": 10,
  "name": "Julia"
}
```

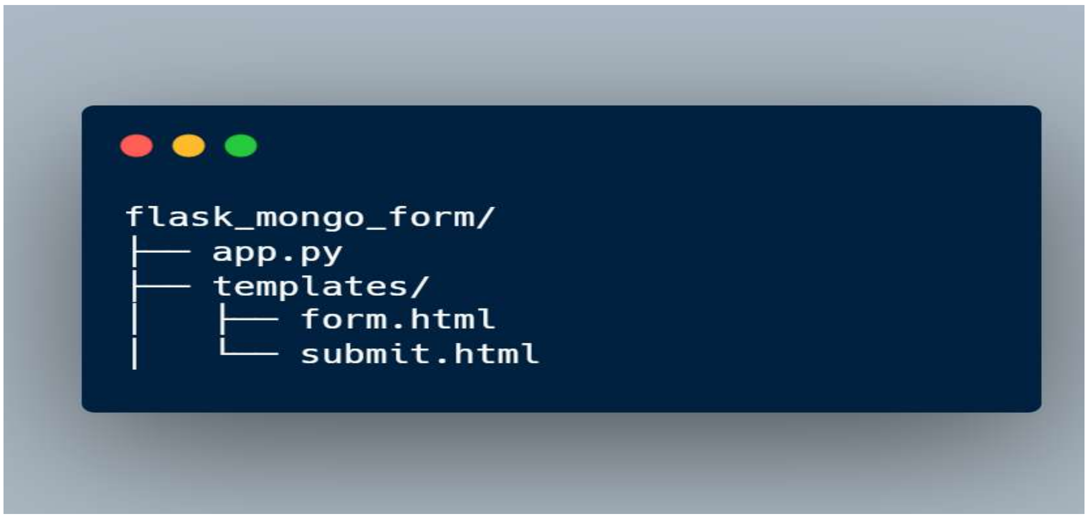
GitHub Link of Task-1

https://github.com/AshrayVB30/TuteDude-Assignments/tree/main/Flask%20Task/flask_api_app

Task - 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.

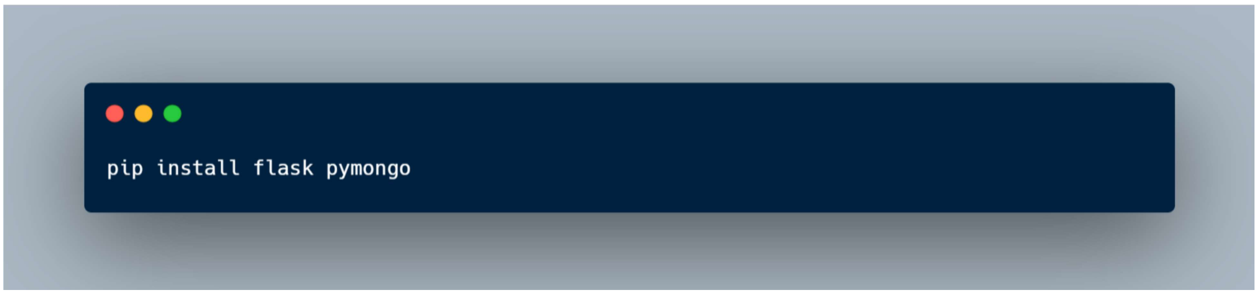
Project Structure



```
flask_mongo_form/
├── app.py
├── templates/
│   ├── form.html
│   └── submit.html
```

Required Packages

Install required packages using:



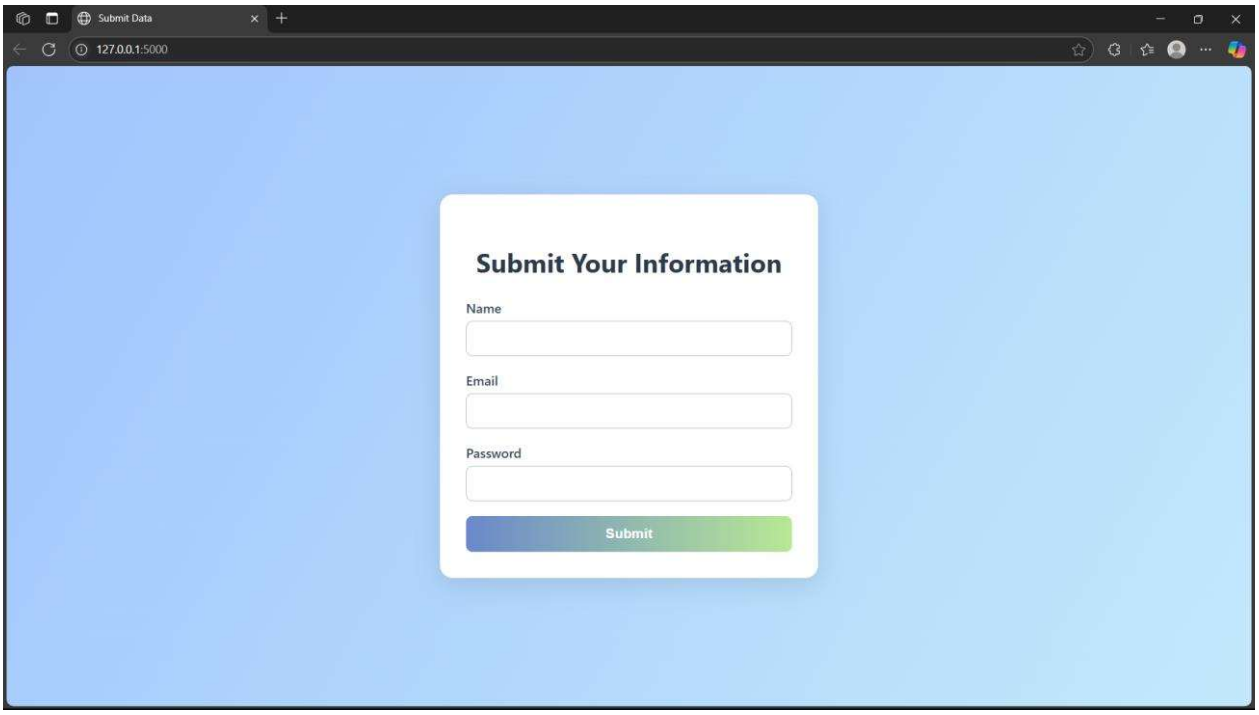
```
pip install flask pymongo
```

How to Run

```
python app.py
```

Screenshots:

Form page



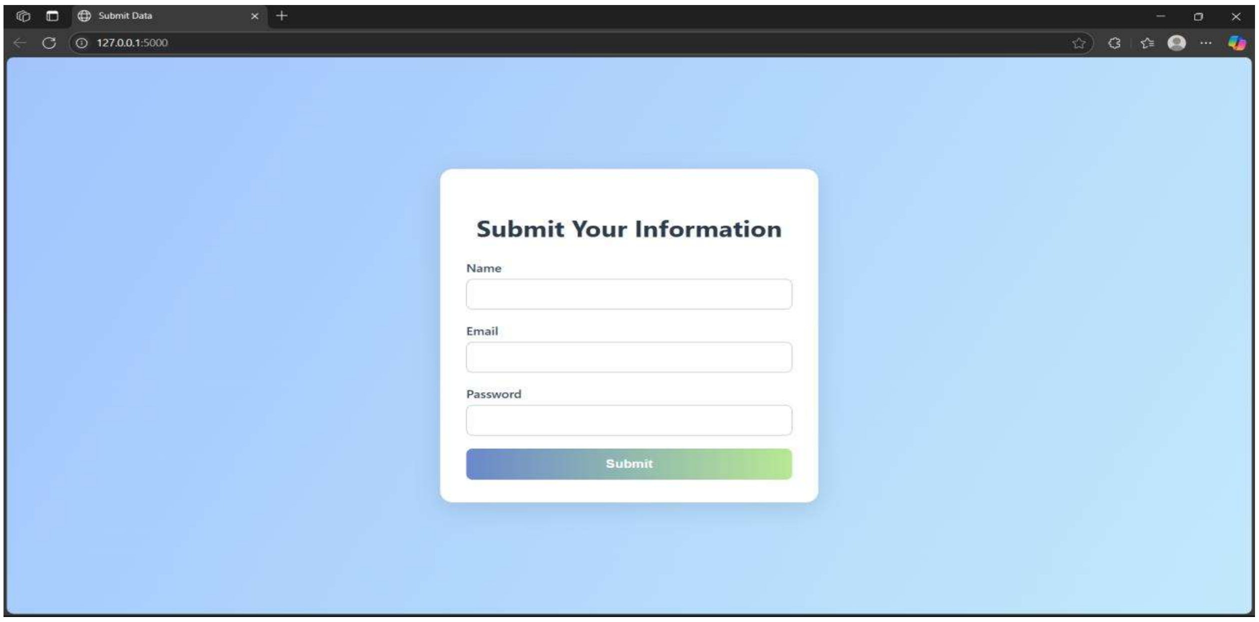
Submit Your Information

Name

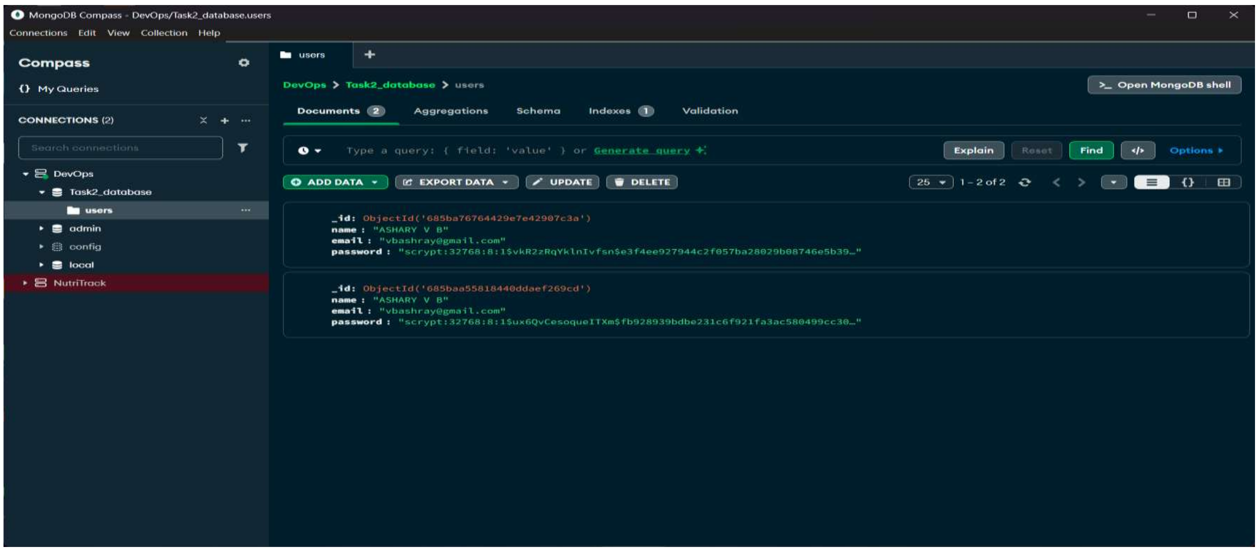
Email

Password

Submit page



MongoDB saved data's



```
_id: ObjectId('685ba76764429e7e42907c3a')
name : "ASHARY V B"
email : "vbashray@gmail.com"
password : "scrypt:32768:8:1$vkR2zRqYklnIvfsn$e3f4ee927944c2f057ba28029b08746e5b39…"

_id: ObjectId('685baa55818440ddaef269cd')
name : "ASHARY V B"
email : "vbashray@gmail.com"
password : "scrypt:32768:8:1$ux6QvCesoqueITXm$fb928939bdbe231c6f921fa3ac580499cc30…"
```

GitHub Link:https://github.com/AshrayVB30/TuteDude-Assignments/tree/main/Flask%20Task/flask_api_app