

Project Title:

Contact List Webpage from SQL Database using Python Flask

Project Description:

In this project, I created a dynamic web application that displays a list of contacts fetched directly from a MySQL database. The application is built using Python with Flask as the web framework and MySQL as the backend database. The interface is styled using embedded HTML and CSS to give a clean and modern user experience.

Technologies Used

Python 3

- Flask (Micro Web Framework)
- MySQL (Relational Database)
- HTML/CSS (Frontend Styling)

Database Setup

Database Name: sample

Table Name: json_import

The table contains contact information with the following columns:

- name
- phone
- email
- website
- address

MYSQL

USE sample;

SELECT * FROM json_import;

Backend Development (Python + Flask)

Established a connection to the MySQL database using the mysql.connector module.

Queried the json_import table to retrieve the first 500 records.

Returned the results in dictionary format for easy use in templates.

python

```
def get_data_from_db():
```

```
    db = mysql.connector.connect(
```

```
        host="127.0.0.1",
```

```
        user="root",
```

```
        port=3306,
```

```
        password="NewStrongPassword123!",
```

```
        database="sample"
```

```
    )
```

```
    cursor = db.cursor(dictionary=True)
```

```
    cursor.execute("SELECT name, phone, email, website, address FROM json_import LIMIT 500")
```

```
    results = cursor.fetchall()
```

```
    cursor.close()
```

```
    db.close()
```

```
    return results
```

Frontend (HTML + CSS)

Used render_template_string to embed HTML and display data dynamically.

Created a responsive and visually appealing table layout.

Each contact includes clickable links for email and websites.

Multi-line addresses are formatted using replace('\n', '
').

html

Copy

Edit

<tr>

<td>{{ row.name }}</td>

<td>{{ row.phone }}</td>

<td>{{ row.email }}</td>

<td>{{ row.website }}</td>

<td>{{ row.address | replace('\n', '
') | safe }}</td>

</tr>

How to Run the Project

Ensure MySQL server is running and the sample database is properly configured.

Make sure all Python dependencies are installed (especially Flask and mysql-connector-python).

Run the Python script:

python app.py

Open your browser and go to <http://127.0.0.1:5000/> to view the contact list.

Key Features

Real-time data fetching from SQL database.

Clean and responsive web design using only HTML and CSS.

Direct links for emailing and visiting websites.

Handles multi-line address formatting.