

MAD1 Project - Household Services Application

Student Details:

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About me - I am a B.S. Data Science and Programming student in my 2nd term of Diploma, also pursuing an engineering degree in Information Technology. Passionate about learning new technologies, I actively engage in tech discussions. I'm dedicated to continuous growth and improving my skills.

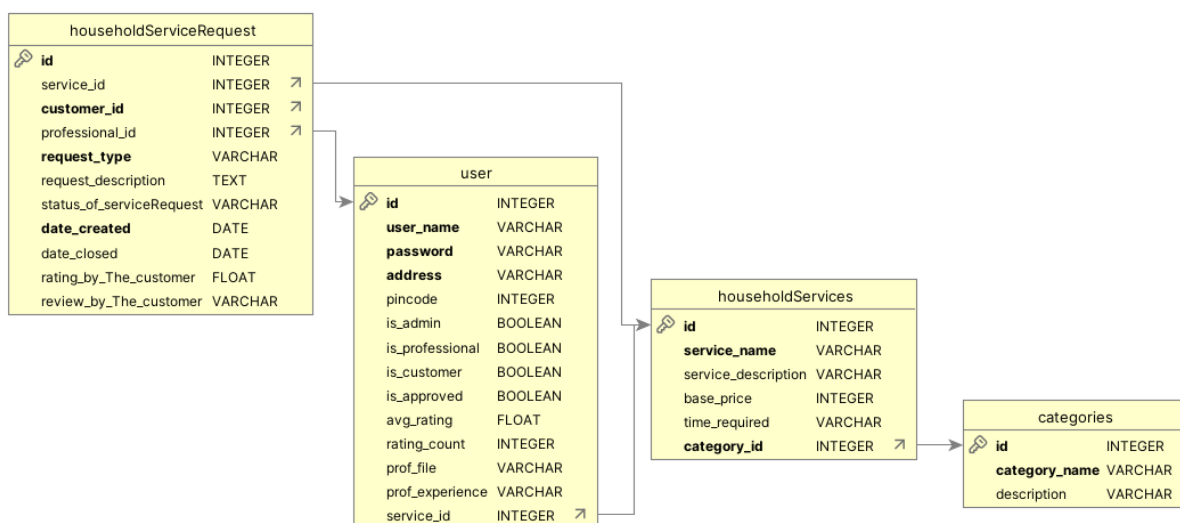
Project Description:

The Household Services Application connects service professionals with customers in need of home services like plumbing and cleaning. Admins oversee user and service management, Service Professionals handle and complete requests while tracking their performance, and Customers can browse services, submit requests, and provide feedback. This multi-user platform enhances service delivery and improves overall user satisfaction.

Technologies Used:

- **Backend Framework:** Flask
- **Database:** SQLite with SQLAlchemy for ORM
- **Security:** Werkzeug for password hashing
- **Frontend:** HTML, CSS, Bootstrap for responsive design
- **Template Engine:** Jinja for dynamic HTML rendering
- **Charting Library:** Plotly for data visualization
- **External Libraries:** Font Awesome for icons, jQuery for DOM manipulation, and Bootstrap for UI components.

DB Schema Design:



Architecture:

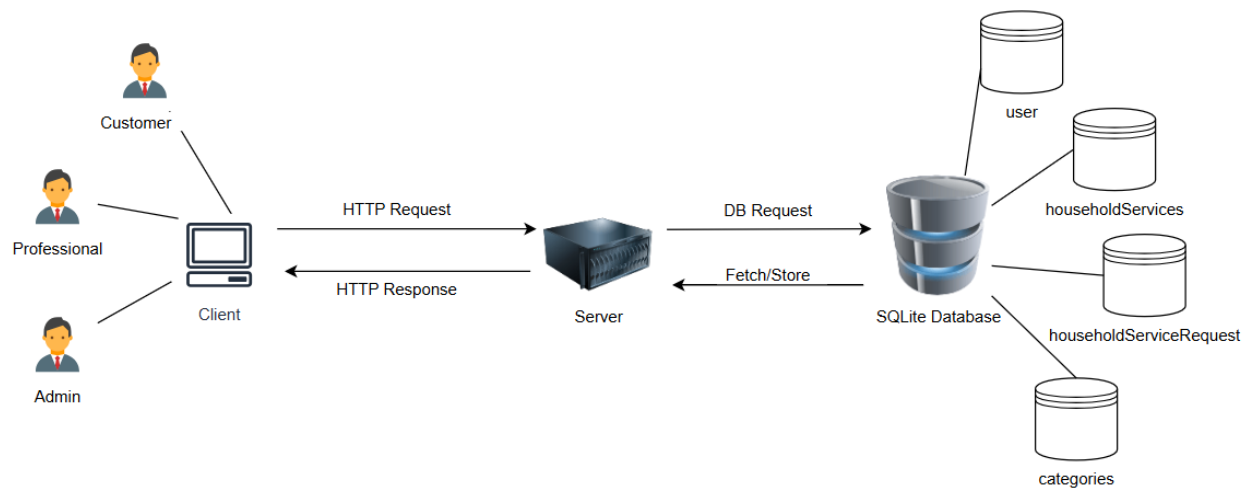


Fig. Client-Server Architecture

- **Data Flow -**

1. Users interact with the client.
2. Client sends HTTP requests to the server.
3. Server processes requests and interacts with the database.
4. Server sends responses to the client.
5. Client displays data to users.

Features:

1. **User Authentication:** Secure registration and login with password hashing.
2. **Admin Dashboard:** Displays user statistics and activity.
3. **Customer Search:** Dropdown with real-time suggestions for finding related users.
4. **Professional Search:** Dropdown for professionals to find customers with real-time suggestions.
5. **Manage users:** Block/Unblock professionals & customers for suspicious activities.
6. **Personalized Tips:** Professionals receive tailored tips based on their ratings.
7. **Rating System:** Users can rate professionals, enhancing trust.
8. **Data Visualization:** Interactive charts and graphs using Plotly.
9. **Dynamic Updates:** Real-time updates for date, time, and search suggestions.

Video Link:

[Project Demonstration Video Link](#)