

Project Report

Modern Application Development 1

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Problem Statement

Household Services Application acts as a platform for providing comprehensive home servicing and solutions. It is a multi-user app that requires one admin, other service professionals and customers. Flask, Jinja2 Templates, Bootstrap for HTML generation and styling, SQLite for data storage are the mandatory frameworks to be used for building the Application.

Approach

The project is set up in a python environment with the required python modules installed in the environment. Application Factory Design Pattern is used in the App. The project makes use of Jinja2 template for rendering frontend and uses the Flask framework for backend tasks. SQLite Database is used and the db file is stored in the instance folder. SQLAlchemy is used for interaction between the Database and Flask App. Bootstrap CSS Framework along with Bootstrap icons are used in Jinja2 Templates to style the App. All the pages of the web app are responsive. Chart JS, a javascript framework, is used for graphs and charts. In some scenarios, Javascript fetch API is used to fetch required data from the backend. All the Core and Recommended Functionalities are implemented in the App.

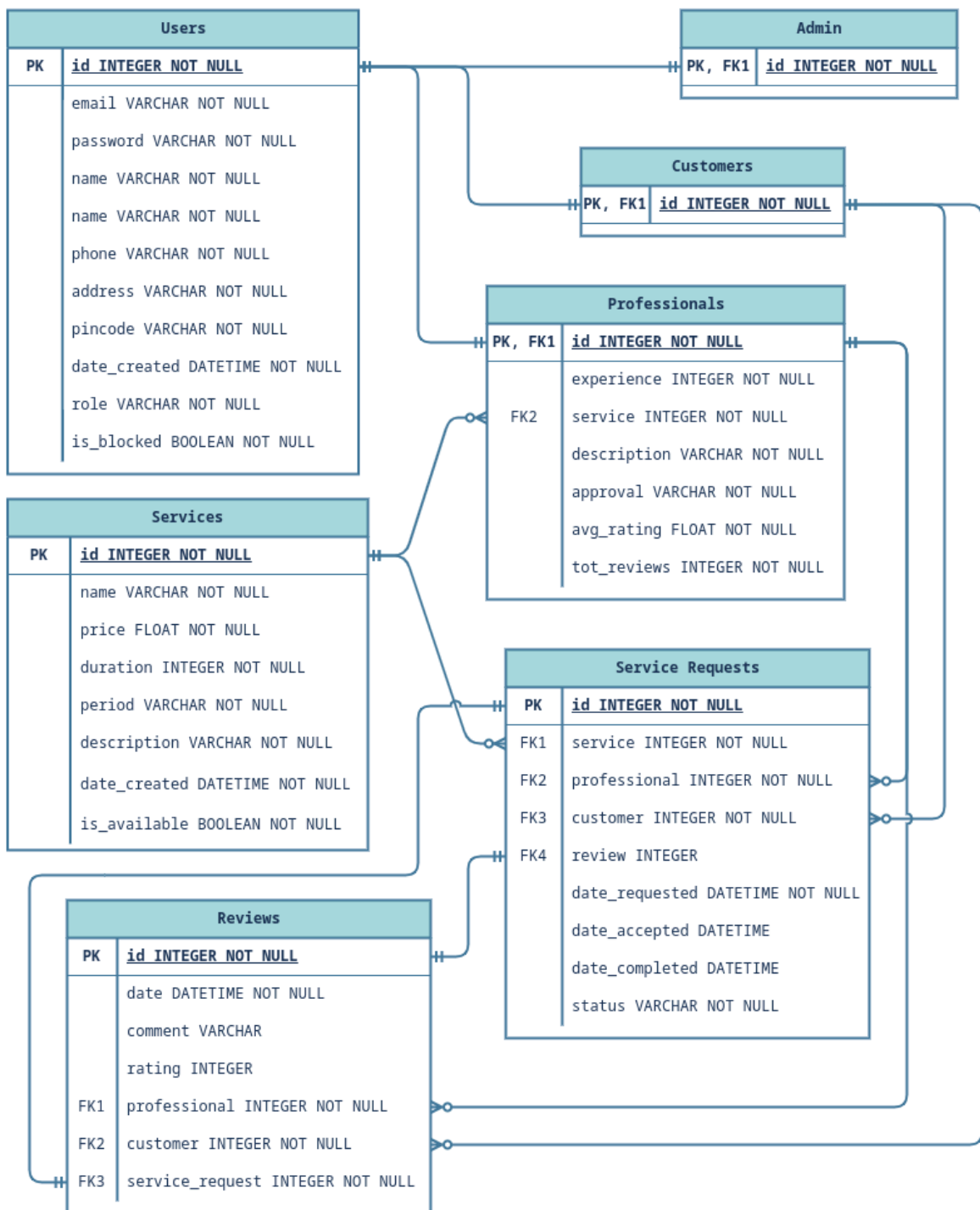
Navigation

Users can navigate to different sections of the App using Navbar. Clicking on the App icon(top left corner of Navbar) shows the Home page. For Responsive screens, Navbar can be opened by clicking the Hamburger sign on the top right corner. Login page is common for all users. However, sign-up for Service Professional and Customer is separate. After sign-up, the user is redirected to login. On logging in, the user is presented with a Dashboard. On the navbar, towards the left side(top for responsive), 3 links - Dashboard, Search, Summary will be visible for navigating to respective sections. A dropdown with user logo is provided towards the right side(down for responsive) of the navbar to navigate to the profile page or logout. The profile page shows user details and has provision to edit user profile, and delete user account. The Dashboard, Search, Summary sections are different for Admin, Service Professional and Customer.

Framework and Libraries used

- Flask
- Flask-SQLAlchemy
- SQLite
- Flask-Login
- Datetime
- Requests
- Bootstrap
- Bootstrap Icons
- Chart JS

ER Diagram of DB



Presentation Video Link →  **Project Demo.mkv**

https://drive.google.com/file/d/1nTKeLfLhMMBKqQ_x98PZ9kSwQAc_W2Dc/view?usp=sharing