

A-Z Household Services (MAD-2 Project)

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Description

This project is a Household Services Application that allow users to book services from the professionals, with authentication.

I have approached the project in the following 3 phases:

Phase 1 – Finalizing the necessary information required for the proper and smooth functioning of the webapp. Thereafter designing a suitable database structure for the information storage using Flask.

Phase 2 – Creating the basic framework with the API and Vue.js implemented

Phase 3 – Styling and Aesthetics. Mainly focused on polishing the web pages to look cleaner and a little user friendly

Modules / Technologies Used

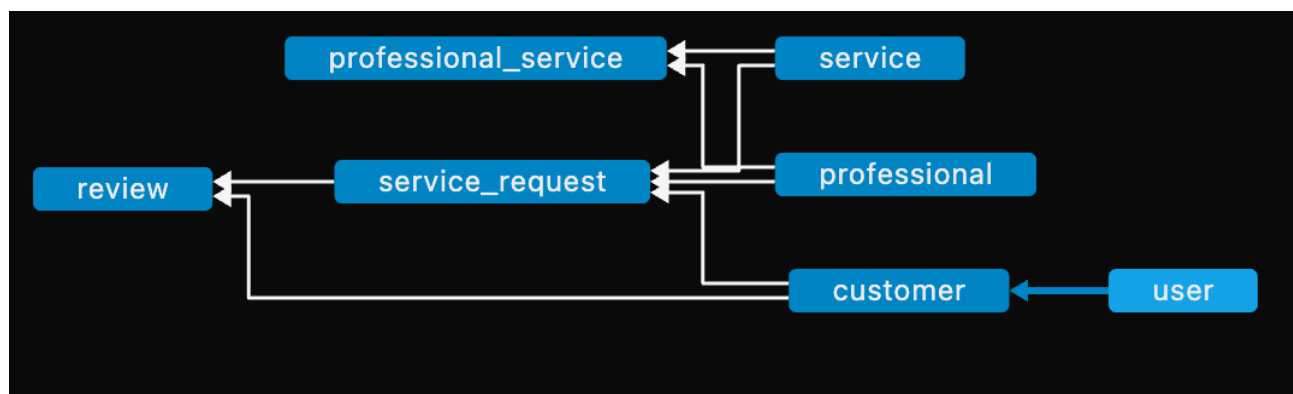
1. Flask(for backend development)
2. VueJs(for frontend UI)
3. Sqlite(database for storage)
4. Redis and Celery(for caching and background jobs)
5. Flask-Security(for authentication)
6. Bootstrap(for styling)

Database Design

Tables used in the Database: User , Customer , Professional , Service, Service Request, Review
Many to Many Relationship - Used in the tables Professional and Service since one service can be shown in multiple

professionals and multiple professionals can be shown in one service. Joint table is used to join and complete the many to many relationship between them.

ER Diagram of the Database



API design

This application provides various RESTfull APIs for various functionalities, like Customer APIs for fetching customer details and managing booking, Authentication APIs where we can use them on Register,Login and Logouts, Professionals APIs for Viewing assigned services ,closed services and updating service status Service APIs for managing services, Service requests APIs for tracking and placing service requests and similar as Review APIs for submitting rating and view reviews and remarks

Architecture

The project folder consists of 5 parts:

Backend folder: It stores all the API's on Views.js, Models and Celery config and Celery tasks for background jobs like reminder and reports.

Frontend folder: Stores all the Frontend part in components using Vue.js and path routes in app.js and the index.html and all the Graphs generated by matplotlib and all the styling in style.css

Instance folder : Database is generated and stored in the instance folder

uploads: Stores the PDF's uploaded by the Professionals

main.py : It stores all the config part and beat schedules and it is the main handler of the project

How to use the application : After extracting the zip folder, create a virtual environment in the same folder and run main.py.

Features

Core Features:

- Admin login and Customer login and professional login– Separate form for Admin, Customer and professional login.
- Service Management – Service management for admin
- Professional Management – Professional management for admin
- Customer Management - Customer management for admin
- • Booking and Cancel services – Ability for the user to book services and cancel the service request.
- Rating and remarks for services.
- Professional have the access to accept or reject the services
- Search for services/professional/service requests – Search-bar given with an ability to search form services using service name, professsional name, location, and pincodes, etc.
- Forms are created with suitable messages and fields to ease the data entering process
- CSS is used for minor styling of the web application
- Background jobs for daily reminder and monthly reports
- CSV export report for admin to see all the service requests details
- Caching for Faster response times

Link to the Video: https://drive.google.com/file/d/1QGXQeBoITN-B_qaPG-QnUjMMIj64p4gU/view?usp=sharing