HomiCare

One stop for all your household services

Done By

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Description

The objective of this project is to create a working website which can be use to book service professionals who are experts in their domain. There are 3 roles associated with this website, viz., Admin, Customer and Service Professional.

- Admin – User who has access to manage the website. An Admin has the authority to accept/reject the registration of new service professionals. He/She can flag the customers and service professionals, more importantly, admin can create/edit/delete a service.
- Customer – Person who creates service bookings for a particular service. He/She has the access to edit the service request and rate the service.
- Service Professional – Person who can accept/reject a service.

Database Design

- **User Model**
  - Represents the user's details like Name, Email, Password, and Role. Contains one-to-one relationship with Customers and Service Professionals Models
- **Customers Model**
  - Stores the data of users whose role is **customers.** This model stores a detailed information, like Name, Email, Contact Number, City, Locality and Is Flagged status. This model has a one-to-many relation with Service Requests Model.
- **Service Professional Model**
  - Stores a detailed information users registered as **service professionals.** This model has the following details of the users; Name, Email, Type of Service, Experience in the Service, Contact, Description about themselves, City, Locality and Is Flagged status.
  - Users who register themselves as service professionals, initially have to wait for the approval from the admin.
  - This model has as one-to-one relation with Services model.
- **Services Model**
  - This model Contains information about a type of service. This typically stores information like, Name of the service, Approximate price range, Duration of the work, Description of the service.
- **Service Requests Model**
  - Each service request is associated with a unique customer and unique service professionals. Each request is created by the customer
  - This model stores the details like Which customer is creating the booking and to which service professional it is being booked to, address, when to start to work and by what date the work should be done. Basically, we book a slot and the service professional will attend the work during that slot.
- **Reviews Model**
  - Stores the reviews of the work done by the professional. This model has one-to-one relation with service request model.

Technologies Used

The project was developed using Flask framework in Python for Backend, Vue.js for frontend and the database was created using SQL Alchemy extension.

API Endpoints

The website has various endpoints for different functionalities, including user authentication, admin operations, customer functionalities, such as creating a service request, updating an existing service, rating the service, and service professional functionalities such as accepting/rejecting a service request, updating the profile, etc.

Authorization

JWT token were used for user authorization for pages like login and signup, while admin, customer, service professional endpoints were restricted to authorized users.

Project Architecture

The project is mainly divided into two parts.

1. Frontend – Folder contains all the frontend templates
2. Backend – Folder contains the ORM of SQL Alchemy database, backend API routes.

Error Handling

The website provides efficient error handling for different scenarios, helping users and developers with quick debugging.

Additional Features

- Redis and Celery were used to send daily reminders to users.
- Automated monthly reports are sent to customers containing details about their service bookings.

Environment

Entire project was developed on native Linux (Ubuntu 22.04) system.

Video Presentation

Link: https://drive.google.com/file/d/1Vyrlc2a7qavqg1RToVP8lKdUrmpiXYIn/view?usp=sharing