MODERN APPLICATION DEVELOPMENT 1 PROJECT REPORT

A-Z HOUSEHOLD SERVICES

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Description:

The Household services Application provides all the services for a house. The admin creates and manages the services. The profesionals can signup to a service. The customers can choose the service and profesionals for the service.

Technologies Used:

1) Flask- for API.
2) Flask login- Login system for user, customer and professionals.
3) Flask SQLAlchemy- To store and manage data in a database.
4) SQLite - For data storage
5) Jinja- For generating HTML templates.
6) Matplotlib- To plot statistics.
7) HTML- Structuring web pages.
8) CSS- Styling web pages.

DB Schema Design:

The following are the DB tables with columns and constraints. Each table has a unique identifier(id as primary key).

1) Users:
   a) id(Primary Key, Integer)
   b) email_id(String max length 100, unique)
   c) password(String max length 100, not null)
   d) fullname(String max length 100)
   e) phone_no(Integer)
   f) address(String max length 200)
   g) pincode(Integer)
   h) role(Numeric)
2) Professional:
   a) id(Primary Key, Integer)
   b) email_id(String max length 100, unique)
   c) password(String max length 100)
   d) fullname(String max length 100)

e) service_name(String max length 100)
f) experience(String max length 100)
g) phone_no(Integer)
h) pdf_filename(String max length 150)
i) address(String max length 200)
j) role(Numeric)
k) active(Boolean)
l) service_price(Integer)

3) Service:
   a) service_id(Integer, Primary key)
   b) service_name(String , unique)
   c) base_price(Integer)
4) Requests:
   a) id(Integer, Primary Key)
   b) service_id(Integer, Foreign Key)
   c) customer_id(Integer, Foreign Key)
   d) professional_id(Integer, Foreign Key)
   e) date_of_request(DateTime)
   f) date_of_comfg3 3bv 0pletion(DateTime)
   g) service_status(String max length of 50)
   h) rating(Integer)
   i) action(String max length of 20)

API Design:

CRUD operations for Service Management
In the similar fashion the Professionals also have the same operations.

Architecture and Features

Architecture:

The project folder contains—

1. Python codes organized into 5 files
   1. app.py- contains the code for starting the household services application.
   2. models.py-contains the database schema related definitions.
   3. __init__.py – contains entry point for initializing the application, setting up configurations, and integrating extensions (like SQLAlchemy for database interactions and LoginManager for user sessions).
   4. auth.py- handles authentication-related routes, including registration, login, and logout for different user roles (Customer, Professional, and Admin).
   5. main.py – contains all primary app interactions, structuring them according to the user's role (customer, professional, or admin). Each route focuses on displaying data, allowing CRUD operations, and filtering requests based on context .

2. Templates folder is used to serve the html fils.
3. Static folder contains the css file, uploaded documents and images.
4. The instance folder contains the database.
5. Venv contains the required python libraries to build the application.

Features implemented:

1. An admin and a Service is created in the model at the start
2. The flask app opens the main page, where the customer/professional can login, also create can register as a new customer or professional.
3. Creation,update and deletion of Services with their base price by admin
4. Admin can approve, reject or delete any professional who are not fit for the service.
5. Only approved professionals can be booked by the customer.
6. Customer can book the service of any professional with or without checking the ratings of the professionals.
7. Customer can also close the request.
8. The customer and professionals can change their profile details from their home profile.
9. Customer can search professionals based on the available services.
10. Professional can search based on the customer’s details.

VIDEO

https://drive.google.com/file/d/1O87BqYjvuoDSbDnSQzd4TLI3RUft7_uf/view?usp=sharing