





HOUSEHOLD SERVICES APPLICATION

MODERN APPLICATION DEVELOPMENT -1



Project Report By
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Student Details

I am a Full-stack Engineer skilled in building scalable, real-time applications using NodeJS, Python, MongoDB, TypeScript, and Next.js. With expertise in architecture design and frameworks like Python, and am passionate about delivering high-quality software solutions.

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Project Description

The Household Services Application is a multi-user platform designed to provide a comprehensive solution for household service management. This system enables seamless interaction between admin, service professionals, and customers, ensuring efficient service delivery.

Roles in the System:

- Admin: The admin acts as the platform's supervisor. They can manage all users, approve or block professionals/customers, and update or add new services like plumbing, AC repair, etc.
- Service Professionals: Professionals can accept or reject customer requests, update their profiles, and complete assigned tasks. They are reviewed by customers after completing a service.
- Customers: Customers can search for services, book requests, track progress, and leave reviews after the service is completed.

Technologies Used

- **Frontend** - Jinja2, HTML/CSS and Bootstrap, for a simple yet responsive user interface.
- **Backend** - Flask, for managing the logic and data.
- **Database** - SQLite, for lightweight and reliable storage.
- **Data Visualization** - Matplotlib, for generating bar and pie charts, providing users and admins with actionable insights through graphical representations.

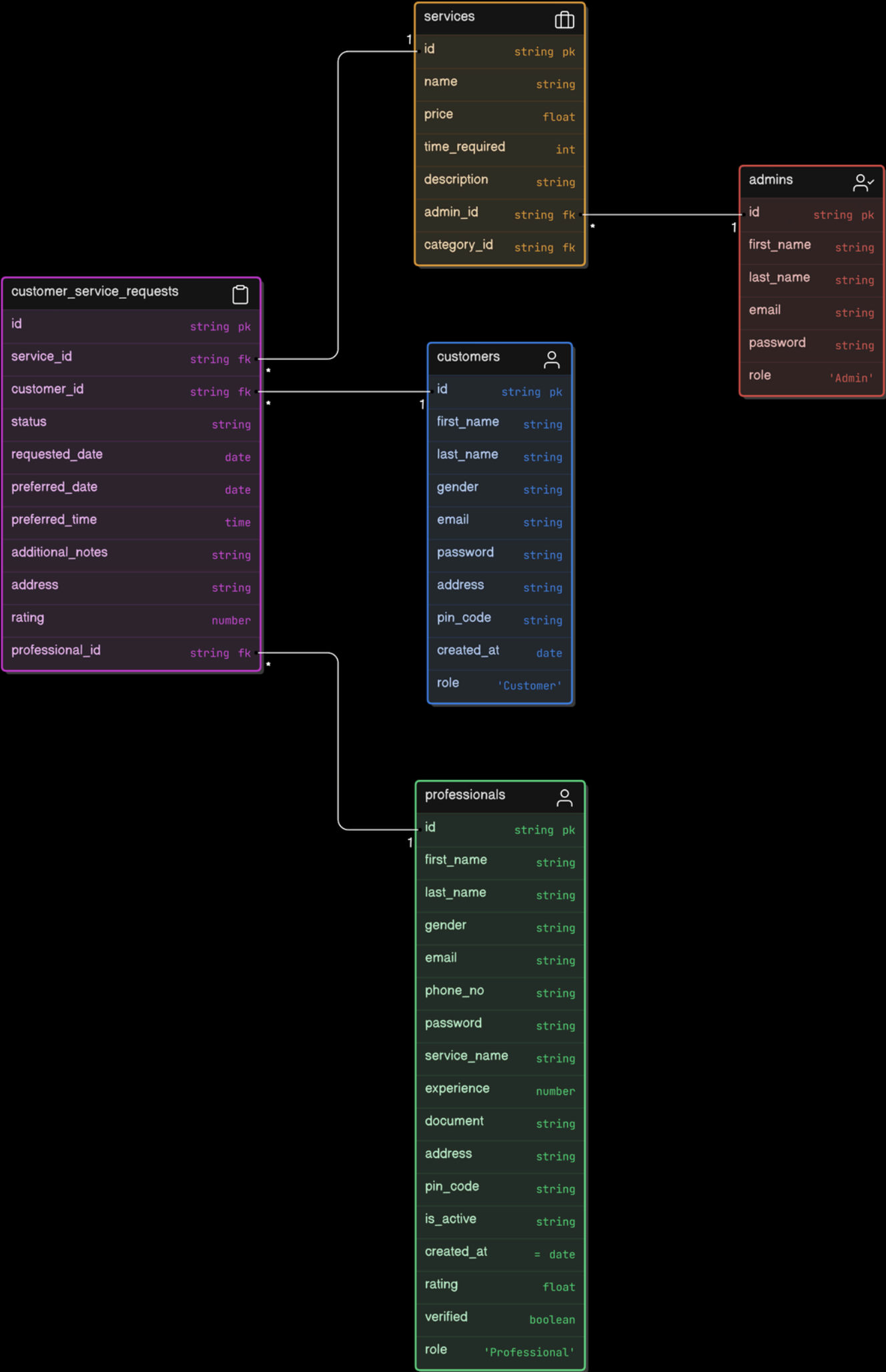
Database Schema Design

This database schema is for a Household Services Application. It includes:

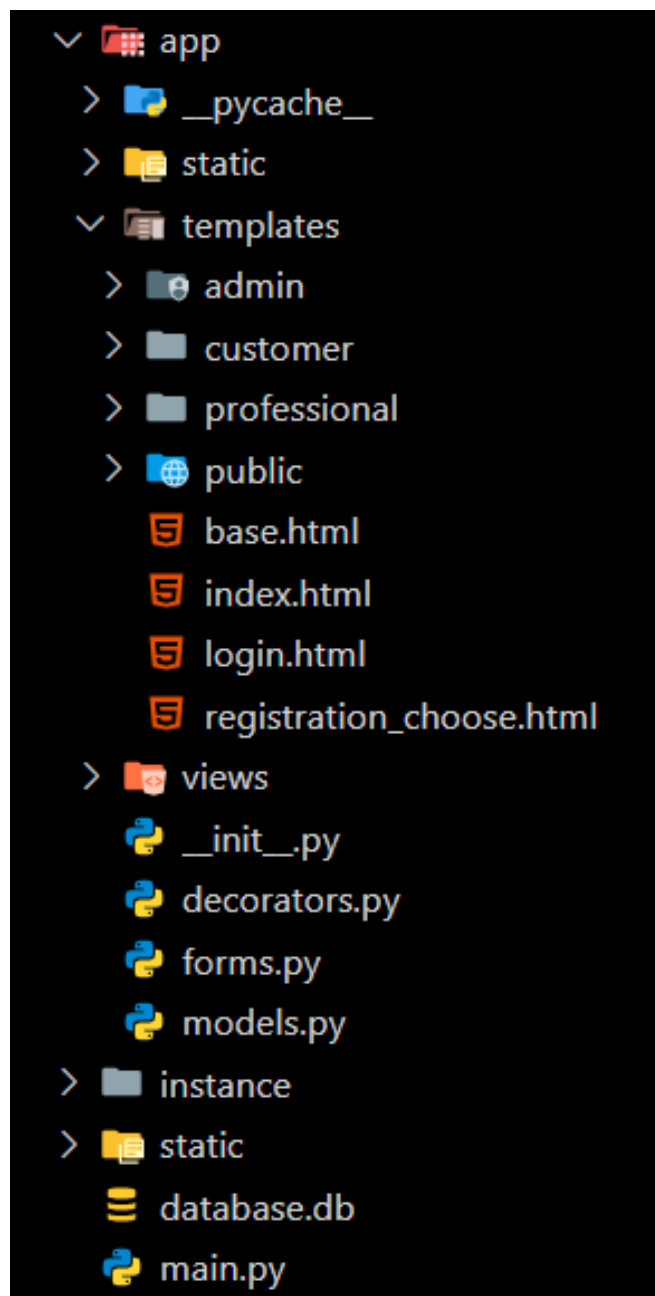
- **Services:** Information about the services offered, such as name, price, description, and the admin who manages it.
- **Customers:** Users who request services, with their personal details and account information.
- **Professionals:** Service providers who fulfill requests, with details like name, service expertise, rating, and availability.
- **Customer Service Requests:** Tracks each request made by a customer, including service details, status, and assigned professional.
- **Admins:** Admin users who manage the application and services.

The relationships allow customers to request services, professionals to fulfill them, and admins to oversee everything.

Household Services Application



Folder Structure



- **Admin-** Handles the admin routes, with admin-specific protection.
- **Professional-** Manages the professional routes, ensuring login protection.
- **Customer** - Manages customer routes, with login protection enabled.
- **Public** - Handles routes accessible to the public without authentication.