# MAD I PROJECT REPORT

Household Services Application

**Submitted By**:

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**Problem Statement**:

To build a multi-user web application which acts as a common platform for providing household services bringing both customers and service professionals
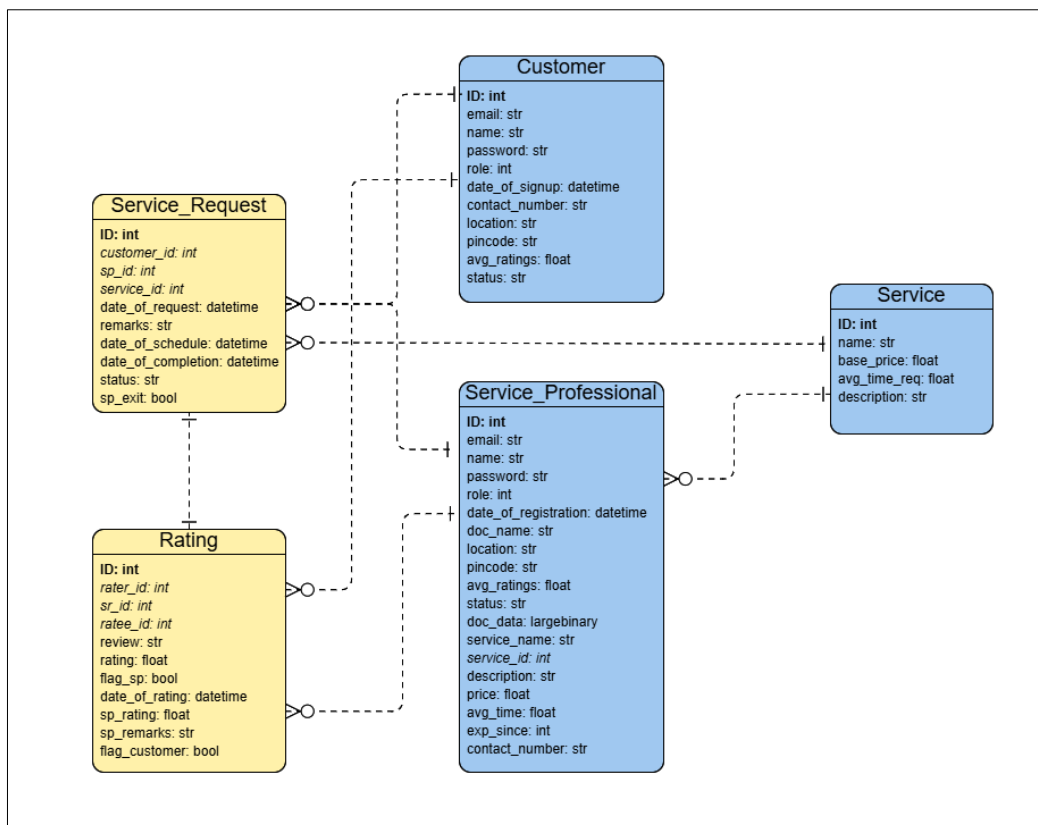
**Approach**:

- Divide the roles and responsibilities for all the users: admin, customer and service professional
- Map the involvement of each user in each of the core functionality of the application
- Create the ER Diagram
- Design the workflow for each core functionality
- Implement the corresponding logic in controller for each of the functionalities

**Frameworks and libraries used**:

1. Flask: Backend framework for the web application
2. HTML/ CSS: Frontend technology for the user interface designs and user interactions
3. Jinja2: Template engine to render HTML pages dynamically
4. SQL Alchemy: Object Relation Mapping tool for database interaction
5. SQLite: Database management system for managing application data
6. Matplotlib: Library to create plots for summary and analysis

**ER Diagram**:



The above diagram shows the relations between the entities defined as part of the application model: Service Request, Rating, Customer, Service Professional, Service

**API resource endpoints**:

API end points are created for CRUD operations on service requests.

**GET**:

To read the all the service requests associated with a valid user

URL: http://127.0.0.1:5000/api/service_requests/customer/<int:customer_id>

**POST**:

To create a new service request for a valid user with a valid service professional

URL: http://127.0.0.1:5000/api/service_requests/customer/<int:customer_id>/sp/<int:sp_id>

**PUT**:

To modify a existing open service request for a valid user with a valid service professional

URL: http://127.0.0.1:5000/api/service_requests/sr/<int:sr_id>

**DELETE**:

To delete an existing service request

URL: http://127.0.0.1:5000/api/service_requests/sr/<int:sr_id>

**Drive link for presentation video:**

URL: https://drive.google.com/file/d/1fJvTptne56t1uWfcmYWFykfWvqJrciOx/view?usp=sharing

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