Overview of Data Flow

The Data Flow in the Garage Management Project defines how information seamlessly transitions across different modules within the Salesforce platform. This flow ensures that every operation—from customer registration to billing and feedback—is automated, interconnected, and accurately recorded. Designed with a focus on data integrity, consistency, and real-time synchronization, the data flow forms the backbone of the system's functionality.

The process begins when a new customer is registered in the system. During registration, essential details such as name, contact number, address, and email are recorded. Salesforce's custom objects and validation rules ensure that each record is unique and accurately formatted. Once a customer profile is created, it becomes the central reference point for all associated vehicle and service records.

Each customer can have one or multiple vehicle records linked to their profile. This relational data model allows the system to maintain an accurate vehicle history, including past services, repairs, and billing details. Whenever a service request is initiated, it automatically references both the customer and their corresponding vehicle, creating a connected record that simplifies tracking and reporting.

The Service Booking module automates job scheduling, assigning specific tasks to mechanics or technicians. As the service progresses, the Platform User (mechanic) updates task status and job details in real time. These updates flow back into the system, providing managers with complete visibility over ongoing operations.

Upon service completion, the Billing module retrieves relevant service data—including parts used, labor charges, and taxes—to generate an automated invoice. This integration ensures that no manual calculation is required and that all charges are transparent and accurate.

Finally, the system enables the customer to submit feedback on the service received. The feedback data is captured within Salesforce and linked to the customer's record for continuous quality evaluation.

Salesforce Reports and Dashboards then compile data from all modules—Customers, Vehicles, Services, Billing, and Feedback—to provide analytical insights. Managers can use these insights to evaluate business performance, identify bottlenecks, and make informed decisions.

This structured and automated data flow ensures that all garage operations are seamlessly connected, eliminating redundancy, minimizing errors, and improving both efficiency and customer satisfaction.

Step-by-Step Data Flow Description

1. Customer Registration

The process begins when the Manager or authorized user adds a new customer into the system.

Salesforce captures and validates all required information using predefined validation rules to ensure data accuracy.

A unique Customer ID is generated automatically, establishing a relationship link with future vehicle and service records.

2. Vehicle Association

Each customer can register one or more vehicles under their profile.

The Vehicle object stores details such as make, model, registration number, and service type.

These records are linked to the corresponding customer through lookup relationships, maintaining traceable ownership and service history.

3. Service Booking and Tracking

When a service booking is created, the system automatically links it with both the Customer and the Vehicle objects.

The Manager can view all service requests and assign them to available staff.

Salesforce Flows handle the automation of service assignment and status tracking.

As work progresses, Platform Users (mechanics) update the service record's status—e.g., "In Progress," "Completed," or "Pending."

These updates are instantly reflected across all related records, ensuring real-time visibility for management.

4. Billing and Payment

Once a service is completed, the Billing module retrieves details from the Service object, including labor time, parts used, and additional charges.

A Salesforce Flow automatically generates an invoice, calculates totals, and updates the Billing object.

The manager can review or modify billing information before finalizing it.

Payment status is then updated, ensuring complete transaction transparency.

5. Feedback and Reporting

After billing, the system prompts the customer to provide feedback on service quality.

Feedback records are linked to the corresponding billing and service entries for accurate tracking.

Reports and Dashboards aggregate these records, enabling managers to evaluate performance metrics such as average service time, customer satisfaction scores, and revenue trends.

This structured process ensures a closed-loop data flow—from customer creation to post-service evaluation—allowing continuous monitoring and optimization within the Salesforce platform.

User Stories and Acceptance Criteria

To ensure user-centered design, the Garage Management Project was developed using Agile methodology, where each feature was represented as a User Story with defined acceptance criteria. These user stories capture the perspectives of both Managers and Platform Users, ensuring that the system meets operational and business requirements effectively.