

Requirement Analysis phase

Data Requirements & Object Schema Document

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Team ID	NM2025TMID02695
Project Name	Garage Management system
Maximum Mark	4 Marks

1. Purpose

This document defines the data architecture — including Salesforce custom objects, fields, relationships, and key data types — used to implement GMS.

2. Object Schema Overview

Object Name	API Name	Auto Number Format	Key Fields	Data Type / Constraints	Concept / Purpose
Customer Details	Customer__c	None	Phone, Gmail	Phone, Email (Required)	Stores customer contact details.
Appointment	Appointment__c	app-{000}	Vehicle Number Plate, Appointment Date	Text(10, Unique), Date	Records service booking details.
Service Record	Service_Record__c	ser-{000}	Service Status, Quality Check Status	Picklist (Started, Completed), Checkbox	Tracks execution and QA process.
Billing Details	Billing__c	bill-{000}	Rating for Service, Payment Status	Text(1), Picklist (Pending, Paid)	Handles financial and feedback closure.

3. Relationships

Parent Object	Child Object	Relationship Type	Purpose
Customer Details	Appointment	Lookup	Links customer to appointment.
Appointment	Service Record	Lookup	Connects service progress to booking.
Service Record	Billing	Lookup	Ensures billing only for completed services.

4. Field Details Example

Field Name	API Name	Data Type	Required	Description
Customer Name	Name	Text	✓	Name of the customer
Phone Number	Phone__c	Phone	✓	Contact number
Gmail	Gmail__c	Email	✓	Email ID
Address	Address__c	Text Area	✗	Customer address

5.Appointment

Field Name	API Name	Data Type	Required	Description
Appointment ID	Name	Auto Number (app-{000})	✓	Unique appointment ID
Vehicle Number Plate	Vehicle_No__c	Text(10), Unique	✓	Vehicle identification
Appointment Date	Appointment_Date__c	Date	✓	Booking date
Service Type	Service_Type__c	Picklist	✓	Maintenance, Repair, etc.
Service Amount	Service_Amount__c	Currency (Read-Only)	✓	Calculated via Flow

Service Record

Field Name	Data Type	Required	Description

Service ID	Auto Number (ser-{000})	✓	Unique service record
Service Status	Picklist (Started, Completed)	✓	Indicates progress
Quality Check Status	Checkbox	✓	QA confirmation
Mechanic Assigned	Lookup(User)	✗	Technician performing the service

Billing Details

Field Name	Data Type	Required	Description
Billing ID	Auto Number (bill-{000})	✓	Unique billing record
Rating	Text(1)	✓	Customer feedback rating (1–5)
Payment Status	Picklist (Pending, Paid, Cancelled)	✓	Tracks payment state
Comments	Long Text Area	✗	Optional customer feedback

5. Data Flow

1. Customer creates Appointment.
2. Appointment triggers Service Record creation.
3. Service Record updates Billing record upon completion.
4. Billing updates Service Amount back to Appointment via Flow.

6. Acceptance Criteria

- All data relationships validated successfully.
- Unique and required field constraints enforce data integrity.
- Reports can be generated using object relationships.