

## Ideation Phase

## Performance Testing

Date	1 Nov 2025
Team ID	NM2025TMID02085
Project Name	Garage Management system

### Performance & Feature Validation:

#### Overview:

The tested features include customer record management, appointment scheduling, service tracking, billing automation, feedback management, system access control, and real-time dashboards. The objective was to validate automation, data accuracy, workflow reliability, and robust role-based access according to business needs.

#### Test Scenarios & Results :

##### Customer Record Creation :

All required customer details, including valid and invalid vehicle numbers, were entered to verify field validations and duplicate prevention. The system rejected incorrect data and accepted valid input, showing proper error messages and ensuring clean data storage.

##### Appointment Scheduling :

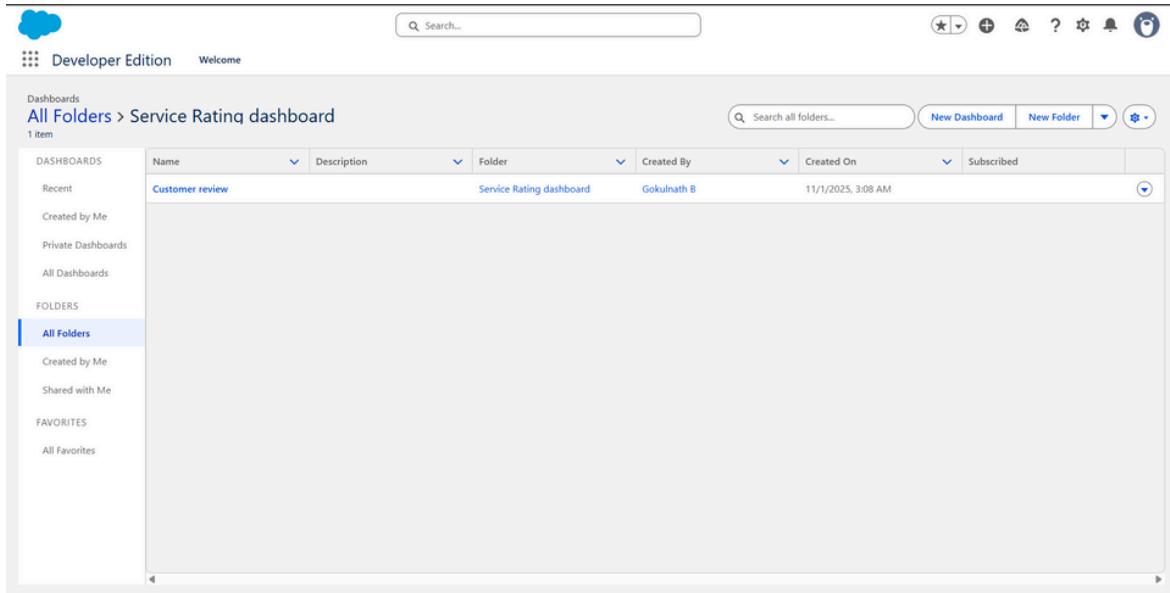
The screenshot shows the Salesforce Object Manager interface for the 'Appointment' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main area displays the 'Fields & Relationships' section for the 'Appointment' object, which contains 12 items sorted by Field Label. The table lists the following fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Appointment Date	Appointment_Date__c	Date		
Appointment Name	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Customer Details	Customer_Details__c	Lookup(Customer Details)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Maintenance service	Maintenance_service__c	Checkbox		
Owner	OwnerId	Lookup(User,Group)		✓
Payment Paid	Payment_Paid__c	Currency(18, 0)		
Repairs	Repairs__c	Checkbox		
Replacement Parts	Replacement_Parts__c	Checkbox		

All required customer details, including valid and invalid vehicle numbers, were entered to verify field validations and duplicate prevention. The system rejected incorrect data and accepted valid input, showing proper error messages and ensuring clean data storage.

## Service Tracking

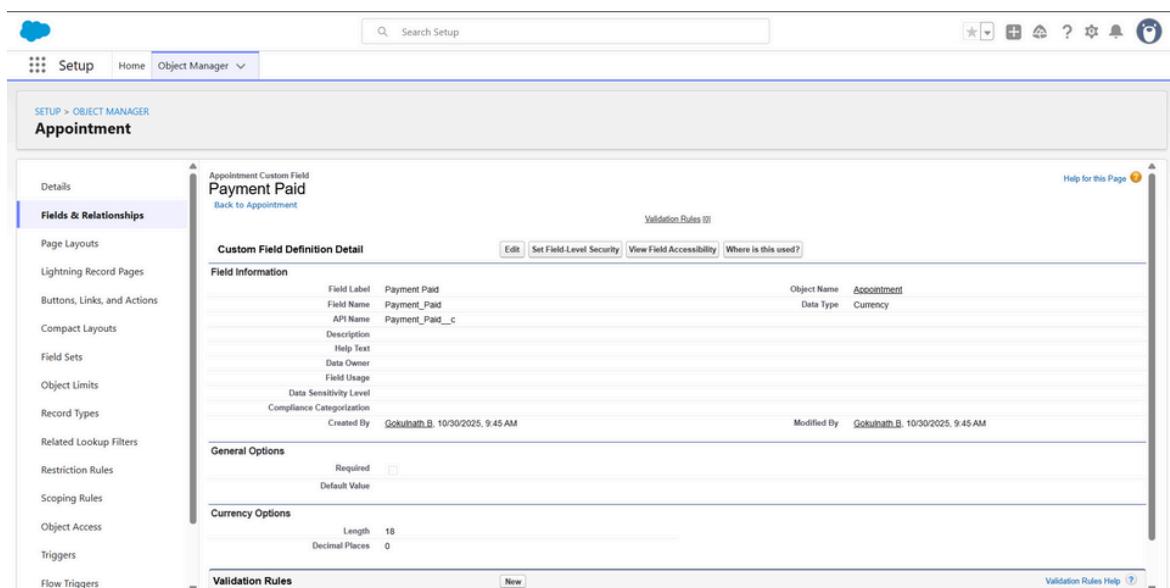
Technicians updated service statuses and performed mandatory quality checks after appointments. Transitioning a service to “completed” automatically triggered billing and updated record visibility, confirming seamless process flow.



The screenshot shows the Salesforce Developer Edition interface. The top navigation bar includes a cloud icon, the text "Developer Edition", and a "Welcome" link. A search bar with the placeholder "Search..." is located at the top right. Below the header, a sidebar on the left contains links for Dashboards, Folders, and Favorites. The main content area displays a table titled "All Folders > Service Rating dashboard". The table has columns for Name, Description, Folder, Created By, Created On, and Subscribed. One item is listed: "Customer review" (Service Rating dashboard) created by Gokulnath B on 11/1/2025, 3:08 AM. The "Folders" section in the sidebar is currently selected.

## Automated Billing

The system automatically calculated billing amounts based on selected services, spare parts, and applied discounts. Manual edits were blocked. Payment reminders were sent to customers for pending bills, and completed payments accurately updated records.



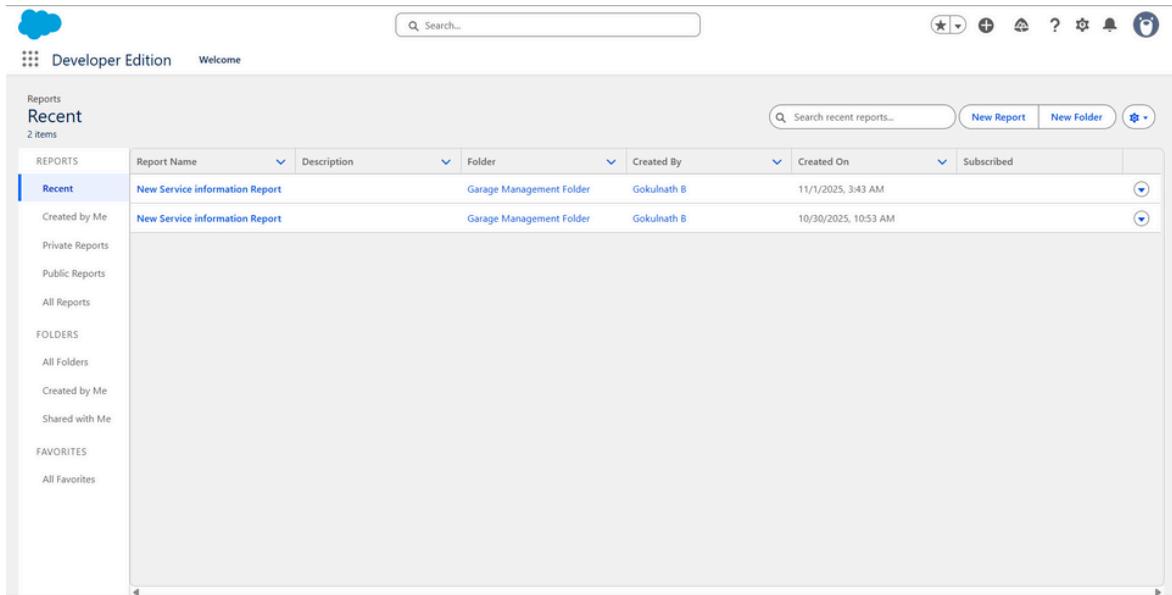
The screenshot shows the Salesforce Setup interface. The top navigation bar includes a cloud icon, the text "Setup", and a "Home" link. A "Object Manager" dropdown is also present. The main content area shows the "Appointment" object setup page. On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, and Object Limits. The "Fields & Relationships" category is currently selected. In the center, a specific custom field named "Payment Paid" is being edited. The "Custom Field Definition Detail" section shows the field's label ("Payment Paid"), name ("Payment\_Paid"), and API name ("Payment\_Paid\_c"). It also displays the object name ("Appointment") and data type ("Currency"). The "General Options" section includes a "Required" checkbox (unchecked) and a "Default Value" field. The "Currency Options" section shows a length of 18 and decimal places of 0. At the bottom, there are "Validation Rules" and "Help for this Page" links.

## Feedback Management

Customer feedback was submitted via the system after each service. Ratings and comments saved correctly, and service quality reports updated in real time. Negative feedback triggered alerts for follow-up.

## Access Control

Role-based login and data access controls were verified for both managers and sales staff. Managers had full visibility and edit access; sales staff could only view records relevant to their assigned tasks, ensuring strong data privacy.



The screenshot shows the Salesforce Developer Edition interface. The top navigation bar includes a cloud icon, the text "Developer Edition", and a "Welcome" link. A search bar with placeholder text "Search..." is located at the top right. Below the header, there are several global buttons: a star with a dropdown arrow, a plus sign, a document icon, a question mark, a gear, a bell, and a user profile icon. On the left side, a sidebar menu is open under the "REPORTS" section. It lists "Recent" (with two items: "New Service information Report" created by Gokulnath B on 11/1/2025 at 3:43 AM and another "New Service information Report" created by Gokulnath B on 10/30/2025 at 10:53 AM), "Created by Me", "Private Reports", "Public Reports", and "All Reports". Below this, under "FOLDERS", are "All Folders", "Created by Me", and "Shared with Me". Under "FAVORITES", there is "All Favorites". The main content area displays a table titled "RECENT REPORTS" with columns: Report Name, Description, Folder, Created By, Created On, and Subscribed. The table contains the two recent report entries from the sidebar. At the bottom right of the main content area, there are buttons for "New Report" and "New Folder".

## Dashboard & Reporting

Operational dashboards displayed up-to-date statistics such as total services delivered, payment status (pending vs. completed), customer satisfaction ratings, and daily appointment volumes. Reports matched the actual record entries, confirming data accuracy.

## Example Test Cases

- **Customer Record:**
- Attempt to save customer with wrong vehicle number to trigger error. Correct details accepted and appear in list.

- **Appointment:**
- Schedule an appointment, review email/SMS notification, verify success. Try booking same time slot—system blocks overlap.
- **Service & Billing:**
- Update service status and quality check, observe auto-triggered billing. Manual bill edit blocked; billing total correct.
- **Access Control:**
- Log in as manager and sales person, compare dashboard and allowed operations for each.
- **Dashboard:**
- Enter sample transactions, payments, and feedback. Check main dashboard for correct updates.

## **Conclusion :**

Extensive validation confirmed that the Garage Management System automates core garage processes, enforces strict validations, ensures reliable communication, and supports secure role-based data access. All primary workflows were robust and ready for production use.