Project Deployment Phase

Deployment phase(Deployment Strategy and Setup, Limitations and Future Enhancements)

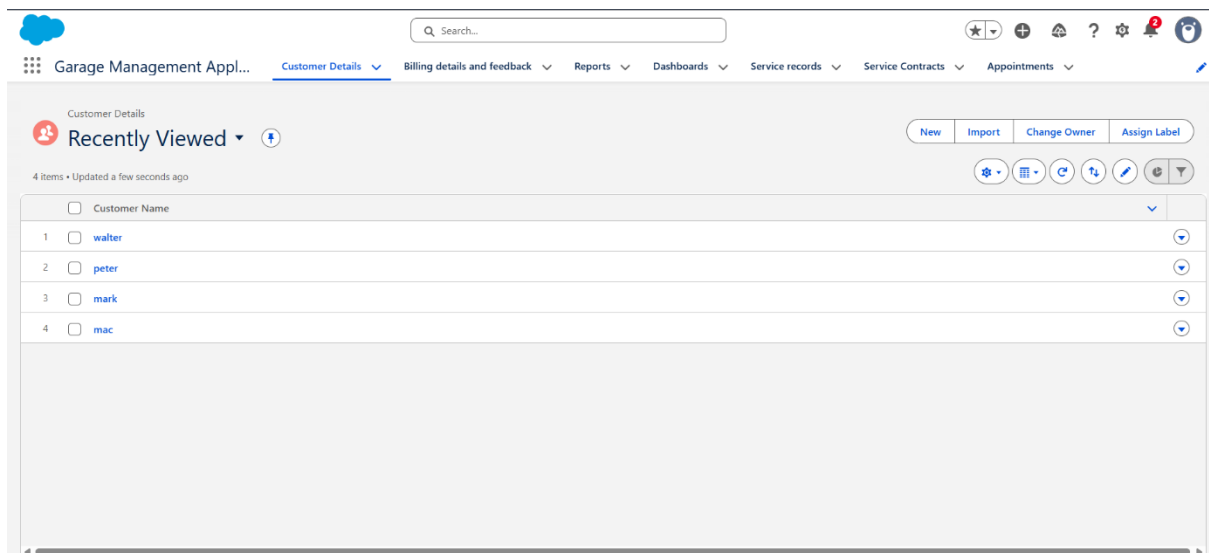| Date	25 October 2025
Team ID	NM2025TMID02695
Project Name	Garage Management system
Maximum Mark	4 Marks

6. Deployment Phase Document: Garage Management System (GMS)

This document covers the deployment steps, final security configuration, current system limitations, and the future roadmap for the GMS project.

6.1 Deployment Strategy and Setup

6.1.1 Setup Instructions for Replication

1. **Setup Profiles & Roles:** Create the **Manager Profile** (cloned from Standard User) and the **Manager** and **Sales Person** roles. Provision corresponding users.

2. **Deploy Objects and Fields:** Create the four Custom Objects ($\text{Customer Details, Appointment, Service records, Billing details and feedback}$) with all their respective custom fields and Auto-Number formats.

3. **Implement Data Integrity:** Create the two **Validation Rules** and the **Required Lookup Filter**.

4. **Deploy Automation:** Create and activate the two **Record-Triggered Flows** and deploy the placeholder Apex Class/Trigger (AmountDistributionHandler / AmountDistribution).

5. **Finalize UI:** Create the **Garage Management Application** (Lightning App) and assign it to the appropriate profiles.

6. **Setup Analytics:** Create the Custom Report Type and set up the shared **Report Folder** and **Dashboard Folder**.

6.1.2 Final Security Configuration

Setting	Object/Folder	Value	Rationale
OWD	Service records	**Private**	Implements the strict security requirement that service work details are not globally visible.
Sharing Rule	Service records	**Read/Write**	Explicitly overrides OWD for managers, granting oversight of the sales team's records.
Folder Sharing	Report Folder and Dashboard Folder	Shared with **Roles: Manager** (View Access).	Ensures only management has access to aggregated analytics.

6.2 Limitations and Future Enhancements

6.2.1 Current Limitations

1. **Actual Cost Calculation:** The system currently relies on placeholder Apex code. The complex logic to automatically calculate and roll up costs (based on services performed) to the **Read-Only** Service Amount field is not yet complete.

2. **Rating Data Type:** The $\text{Rating for service}$ field is implemented as **Text(1)**. This limits the ability to easily perform numerical calculations and averages in reports.

3. **Lookup Filter Date Logic:** The Required Lookup Filter's specific time constraint ($\text{Appointment Date < Created Date}$) is highly unusual and may require review against real-world scheduling processes.

6.2.2 Future Enhancements (Roadmap)

Priority	Enhancement	Description
High	**Complete Apex Logic**	Finalize the code in the $\text{AmountDistributionHandler}$ to correctly calculate and update the total cost on the Appointment object.
High	**Rating Field Conversion**	Convert $\text{Rating for service}$ to a **Number** field to improve reporting and data integrity, and update the Validation Rule accordingly.
Medium	**Service Checklist**	Implement a **Junction Object** (Service_Task__c) to break down Service records into detailed labor and parts tasks for granular cost tracking.
Low	**Technician Assignment**	Add a Lookup to the **User** object on Service records to track which mechanic performed the work.