

Project Design Phase-II Data Flow Diagram & User Stories

Date	1 November 2025
Team ID	NM2025TMID02844
Project Name	Garage Management System
Maximum Marks	4 Marks

Data Flow Diagrams (DFD) :

A Data Flow Diagram (DFD) is a graphical representation used to depict how data moves through a system, showing where information originates, how it is processed, and where it is stored. It helps visualize system functionality and the logical flow of data between various components.

In the Garage Management System (GMS) developed using Salesforce, the DFD illustrates how customer information, appointments, service records, and billing data interact within the system. It highlights the flow of data between users (such as the Manager, Service Staff, and Customer), the Salesforce cloud database, and automated processes such as flows and triggers.

Context Level DFD (Level 0) :

At the top level, the GMS interacts with the following external entities:

Customer: Provides details for registration, requests services, and gives feedback.

Manager: Monitors all operations, service status, and payments.

Sales/Service Staff: Creates appointments, updates service records, and processes billing.

System (Salesforce): Handles automation, data validation, and report generation.

Data Flow Summary:

Customer details are entered → appointments created → service records generated → billing and feedback processed → summarized through reports and dashboards.

**Suggested Figure:
(Insert new diagram -Data Flow Diagram of Garage Management System")**

Level 1 DFD Explanation:

Customer Details Process:

Input: Customer name, phone, and email.

Process: Validation of duplicate records and format checks.

Output: Stored in Customer Details object.

Appointment Process:

Input: Selected service, date, and vehicle number.

Process: Validation through Apex Trigger and automated cost calculation.

Output: Appointment record linked to the customer.

Service Records Process:

Input: Appointment details and service status.

Process: Updated through Flow when Quality Check is completed.

Output: Status reflected as “Completed” or “In Progress.”

Billing and Feedback Process:

Input: Payment and feedback data.

Process: Automated update of payment field and email notification to the customer.

Output: Billing summary and customer rating.

Reports and Dashboard Process:

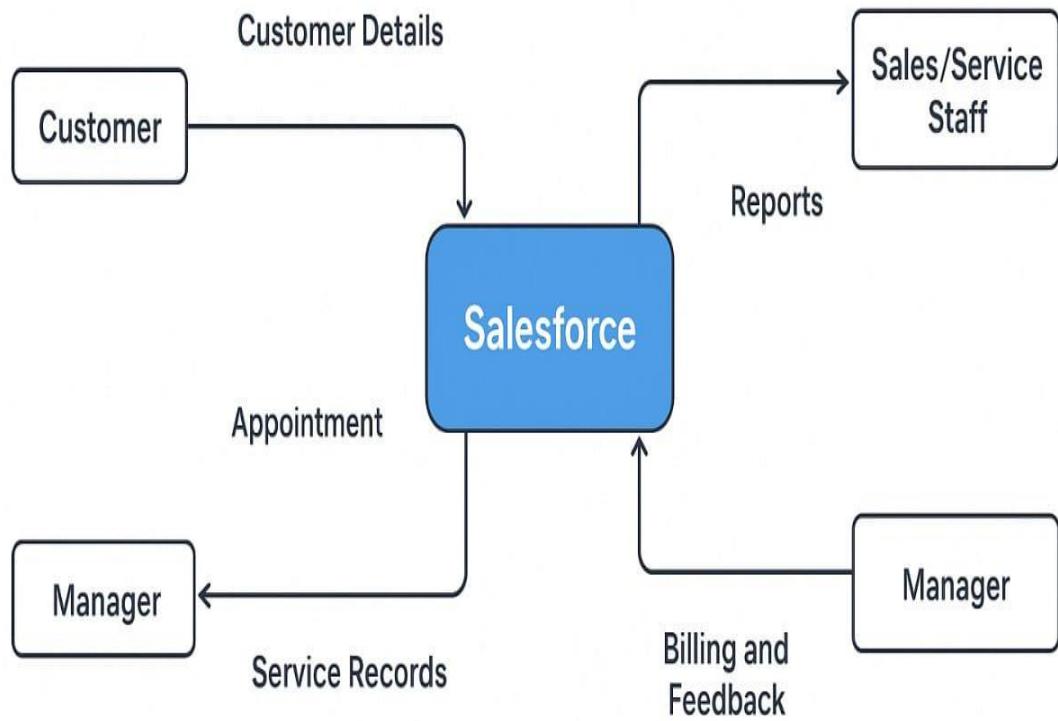
Input: Data from all objects.

Process: Aggregation for visualization.

Output: Real-time performance insights for the manager.

Level 1 : Data Flow Diagram of Garage Management System

Garage Management System



User Stories :

User stories describe system requirements in simple, goal-oriented statements to ensure that each functionality of the Garage Management System aligns with user needs and project objectives.

User Type	Functional Requirement (Epic)	User Story No.	User Story / Task	Acceptance Criteria	Priority	Sprint
Manager	Customer Management	GMS-USN-1	As a manager, I want to add and manage customer records so that all client information is stored securely.	Customer data must pass validation and prevent duplicates.	High	Sprint-1
Sales/Service Staff	Appointment Scheduling	GMS-USN-2	As a staff member, I want to create and manage appointments linked to customers.	Appointment must validate vehicle number and date before saving.	High	Sprint-1
Technician	Service Records	GMS-USN-3	As a technician, I want to update service records after performing maintenance.	Service records must automatically update status upon quality check.	High	Sprint-2
Cashier	Billing & Feedback	GMS-USN-4	As a cashier, I want to update payment and collect feedback after service completion.	Payment status updates and emails are automatically triggered.	Medium	Sprint-2
Manager	Analytics & Dashboard	GMS-USN-5	As a manager, I want to view service performance and payment trends through dashboards.	Dashboard must reflect accurate real-time data from reports.	Medium	Sprint-3

System (Automation)	Workflow Automation	GMS-USN-6	As a system, I must validate input and trigger automation flows to ensure process accuracy.	Flows must execute successfully with no record errors.	High	Sprint-3
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