

Project Design Phase-II
Data Flow Diagram & User Stories

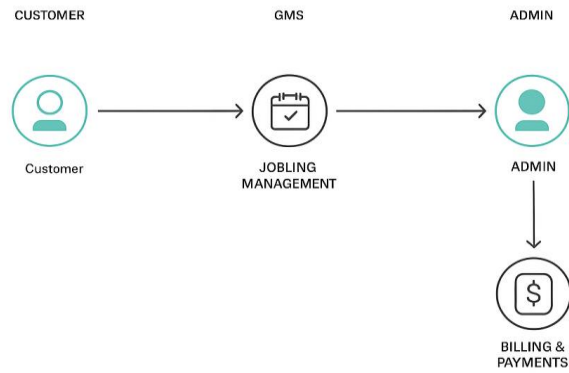
Date	27 JUNE 2025
Team ID	NM2025TMID04024
Project Name	Garage Management System
Maximum Marks	4 Marks

Data Flow Diagrams:

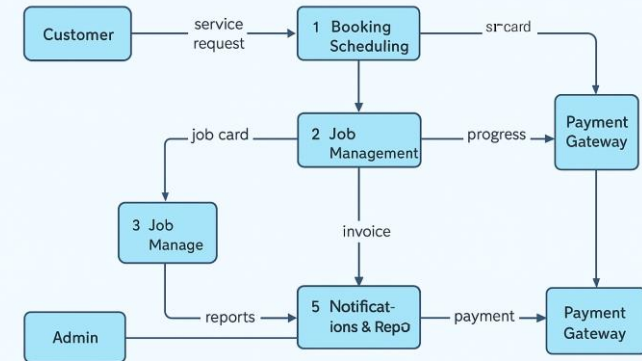
A Data Flow Diagram (DFD) is a graphical tool that represents the flow of information and the transformation of data within a system. It illustrates how data enters and exits the system, where it is stored, and how it moves between various entities and processes. DFDs help visualize the logical movement of data, making it easier to understand the system's functional requirements and data dependencies.

In the project "Garage Management System", Data Flow Diagrams (DFDs) are used to depict the flow of information between customers, administrators, mechanics, and other system components involved in garage operations. The diagrams visually describe how service bookings, job assignments, inventory updates, and billing activities occur within the system.

Flow



1. Customer uses GMS to schedule service.
2. GMS tracks job progress and sends to admin.
3. GMS generates invoice for payment.
4. Admin is notified of job completion.



User stories define what different users need from the system in simple, goal-focused language. In this project, they help ensure the system blocks user deletion only when necessary, protecting incident data.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer	Service Booking	GMS-1	As a customer, I want to book a vehicle service online so that I can schedule it at my convenience.	The system should allow customers to choose available slots, confirm booking, and receive a confirmation message.	High	Sprint-1
Admin	Job Assignment	GMS-2	As an admin, I want to assign jobs to mechanics so that each service request is handled efficiently.	Admin should be able to view pending jobs, assign a mechanic, and update the job status.	High	Sprint-1
Mechanic	Job Management	GMS-3	As a mechanic, I want to update the service progress and add parts used during the repair.	System must save updates in real-time and adjust inventory quantities automatically.	High	Sprint-2

Inventory Manager	Stock Monitoring	GMS-4	As an inventory manager, I want to track spare parts usage and get alerts when stock is low.	When stock reaches minimum level, the system must automatically generate a reorder request.	Medium	Sprint-2
Billing System	Invoice Generation	GMS-5	As a billing module, I need to generate invoices automatically after job completion.	The invoice must include labor cost, parts used, taxes, and total amount.	High	Sprint-2
System (AutoCheck)	Validation before Invoice	GMS-6	As a system, I must verify that all job details are updated before generating an invoice.	Invoice generation is allowed only when the job status is "Completed".	High	Sprint-2
Supplier	Reorder Management	GMS-7	As a supplier, I want to receive restock requests when parts reach the threshold.	The system should automatically send part details and quantities to the supplier database or email.	Low	Sprint-4

Notification Service	Alerts & Communication	GMS-8	As a notification service, I want to send automated messages to customers when booking, job, or payment status changes.	SMS/email notifications should be triggered automatically for each event.	Medium	Sprint-3
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