

## Ideation Phase

### Brainstorm & Idea Prioritization

#### Template

Date	07 NOV 2025
Team ID	NM2025TMID07047
Project Name	Garage Management System
Maximum Marks	4 Marks

#### Garage Management System Template:

This guided project demonstrates how to design and implement a Garage Management System (GMS) that helps automate and organize daily garage operations. The system focuses on managing customer details, vehicle information, service records, billing, and inventory in a single integrated platform.

The GMS ensures efficient workflow between mechanics, service advisors, and customers by maintaining real-time updates on vehicle service status and inventory availability. It reduces manual paperwork, prevents scheduling conflicts, and improves overall service quality.

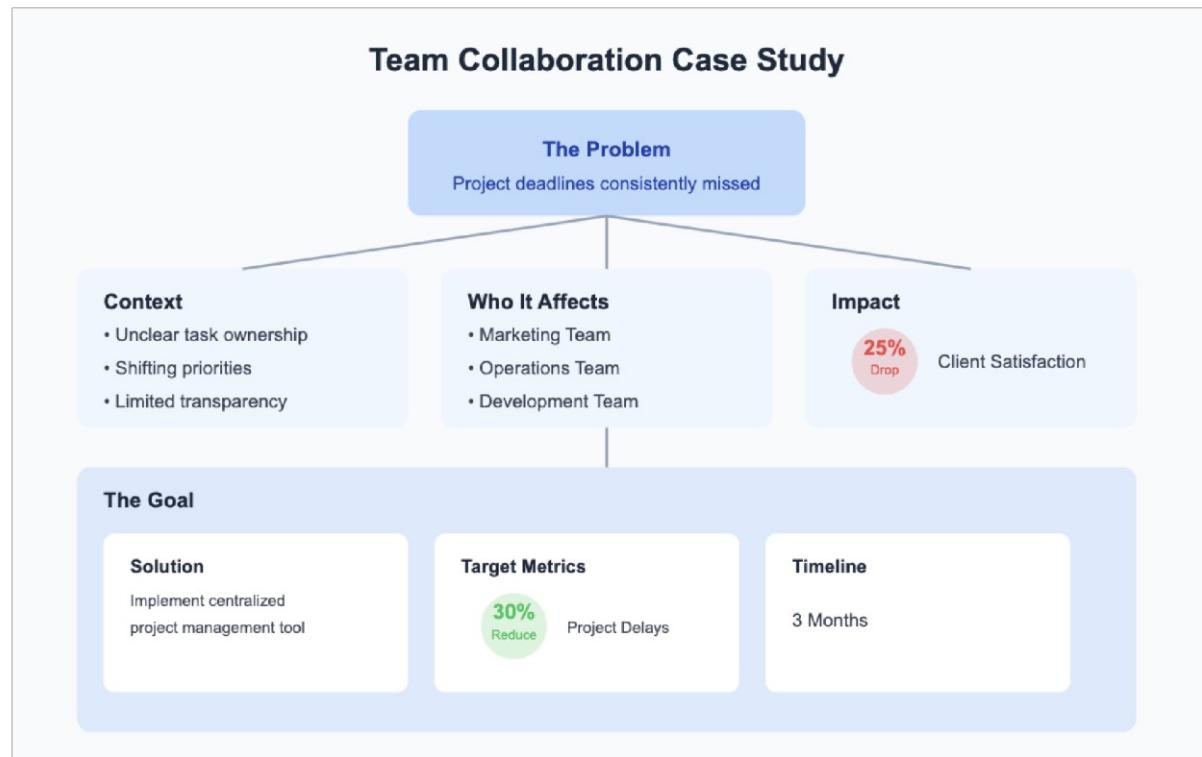
The workflow also includes test scenarios such as adding new customer records, assigning vehicles for servicing, and generating invoices. This ensures that every module of the system — customer management, vehicle tracking, and service scheduling — works smoothly together. The system ultimately helps garage owners improve productivity, maintain accurate records, and deliver better customer satisfaction.

The screenshot shows the SH GARAGE MANAGEMENT SYSTEM dashboard. On the left, there's a sidebar with navigation links for Dashboard, Repair Orders, Counter Sale, Inventory, Accounts, Reports, Employee, Vendor, Item Master, Users, Reset Password, Manage Profile, Settings, and Logout. A Google Play button is also present. The main area has a header with 'GARAGE MENU' and 'SH GARAGE MANAGEMENT SYSTEM'. It displays several key metrics: Created (17), In Progress (3), Completed (94), Payment Due (₹49147.48), Total Expense (0.00), and Total Income (0.00). Below these are sections for 'ONGOING REPAIRS ORDERS' and 'REPAIR ORDERS'. The 'ONGOING REPAIRS ORDERS' section lists items like INV103, INV104, INV105, INV106, INV107, INV108, INV110, INV112, INV114, and INV134 with their respective details. The 'REPAIR ORDERS' section shows a table with columns: STATUS, INVOICE NUMBER, INVOICE DATE, VEHICLE NUMBER, BRAND - MODEL, CUSTOMER NAME, TOTAL AMOUNT, PAID AMOUNT, DUE AMOUNT, and ACTION. The table contains rows for various customers like Shabbir, Audi-A4, Mohammad Ali, etc., with amounts ranging from ₹0 to ₹3381.53. A 'CREATE REPAIR ORDER' button is located at the top right of the repair orders section. At the bottom, there are buttons for 'Get it on Google Play', 'Go to Settings to activate Windows', and navigation links for 'Previous', 'Next', and '2'.

## **Step-1: Team Gathering, Collaboration, and Selecting the Problem Statement :**

The team collaborated to identify common issues faced in garage operations such as inefficient record management, loss of service data, and poor customer follow-up. After group discussions and idea comparison, the team selected the Garage Management System as the primary problem statement to address these inefficiencies using a structured digital solution.

**Reference:** <https://www.mural.co/templates/brainstorm-and-idea-prioritization>



## **Step-2: Brainstorm, Idea Listing, and Grouping :**

**Brainstorm:** Team members freely contributed ideas on improving garage operations — from online booking systems and service tracking to automated billing and reminders.

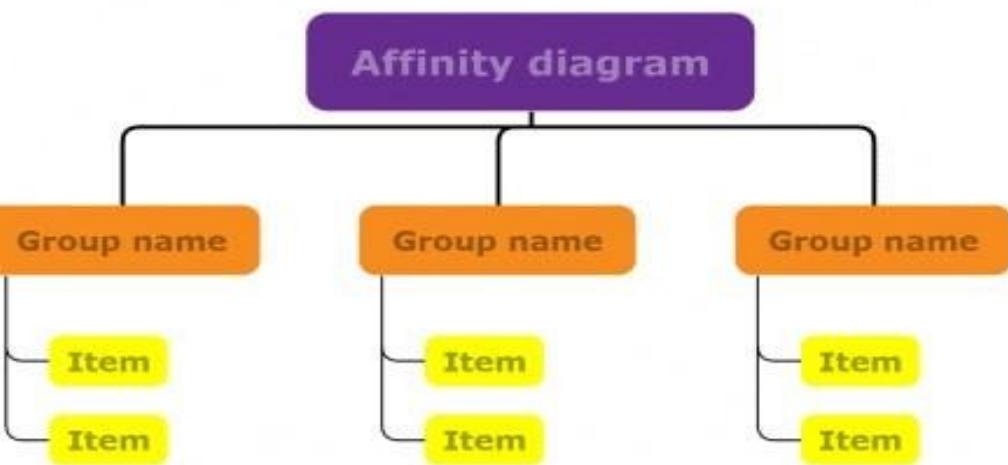
**Idea Listing:** All proposed ideas were documented, including:

- Vehicle service history tracking
- Digital invoicing system
- Mechanic performance monitoring
- Real-time service status updates
- Customer feedback integration

**Grouping:** Ideas were grouped under key modules:

- Customer Management
- Service Scheduling
- Inventory Control
- Billing & Payment
- Reports & Analytics

**Action Planning:** Each module was assigned to team members with clear goals and deadlines for implementation and testing.



### Step-3: Idea Prioritization :

Idea prioritization helps break down the Garage Management System into focused, manageable modules. The main goal is to ensure all vehicle and customer records are centralized, making garage operations transparent and efficient. Prioritizing features such as service scheduling and digital billing ensures that critical functionalities are developed first.

The screenshot shows the "Garage Management System Menu" window. The menu bar at the top has a "Garage Management System" icon and standard window controls. Below the menu bar, there are five buttons: "Add Vehicle" (car icon), "Update Vehicle Status" (document icon), "Make Action" (pencil icon), "Print By Vehicle Status" (print icon), and "View Full Vehicle Details" (eye icon). The main content area is a form for vehicle entry. It contains the following fields:

Plate Number:	Type here
Type:	Select
Model:	Type here
License Type:	Select
Engine Type:	Select
Engine Capacity:	Type here
Number of wheels:	Select
Wheels' Manufacturer:	Type here
Wheels' Air Pressure:	Type here
Number Of Doors:	Select
	<b>Submit</b>

#### By prioritizing ideas effectively, the team can:

- Streamline workflow between mechanics and customers
- Improve data integrity and tracking accuracy
- Enhance user experience through automation