

## Ideation Phase

### Brainstorm & Idea Prioritization

#### Template

|               |                          |
|---------------|--------------------------|
| Date          | 07 NOV 2025              |
| Team ID       | NM2025TMID08995          |
| 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 displays the SH GARAGE MANAGEMENT SYSTEM dashboard. On the left, a sidebar menu lists various modules: DASHBOARD, REPAIR ORDERS, SEARCH REPAIR ORDERS, COUNTER SALE, INVENTORY, ACCOUNTS, REPORTS, EMPLOYEE, VENDOR, ITEM MASTER, USERS, and SETTINGS. The DASHBOARD is currently selected. The main content area shows the following data:

- SH GARAGE MANAGEMENT SYSTEM**
- ONGOING REPAIRS ORDERS**: Job Card | Work in Progress. Shows 10 entries. A table with columns: STATUS, INVOICE NUMBER, INVOICE DATE, VEHICLE NUMBER, BRAND - MODEL, CUSTOMER NAME, TOTAL AMOUNT, PAID AMOUNT, DUE AMOUNT, and ACTION. Entries include:
 

| STATUS      | INVOICE NUMBER | INVOICE DATE | VEHICLE NUMBER | BRAND - MODEL          | CUSTOMER NAME | TOTAL AMOUNT | PAID AMOUNT | DUE AMOUNT | ACTION               |
|-------------|----------------|--------------|----------------|------------------------|---------------|--------------|-------------|------------|----------------------|
| Created     | INV100         | 20 Nov 2019  | MH45658585     | Alfa Romeo-147 3 Doors | Shabbir       | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV104         | 20 Nov 2019  | JFJFJGF        | Audi-A4                | Shabbir       | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV105         | 21 Nov 2019  | MH425652452    | Audi-A4                | Mohammad Ali  | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV106         | 22 Nov 2019  | JFJFJGF        | Acura-Mdx              | Shabbir       | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV107         | 22 Nov 2019  | GJ1556955      | Honda-City ZX          | Shabbir hasan | 0            | 0           | 0          | <a href="#">View</a> |
| In Progress | INV108         | 23 Nov 2019  | MH44545652     | Audi-A4                | Shabbir hasan | 1789.75      | 0           | 1789.75    | <a href="#">View</a> |
| Created     | INV110         | 23 Nov 2019  | MH456476565    | Audi-A6                | Google User   | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV112         | 23 Nov 2019  | MH656552       | Honda-City             | Abbas Ali     | 0            | 0           | 0          | <a href="#">View</a> |
| Created     | INV114         | 23 Nov 2019  | MH455855       | Acura-Mdx              | Shabbir       | 0            | 0           | 0          | <a href="#">View</a> |
| In Progress | INV134         | 21 Oct 2020  | MH01AE1010     | Hyundai-HD All         | Dhruva        | 3381.53      | 0           | 3381.53    | <a href="#">View</a> |
- TOTAL REPAIR ORDERS: 114**
- IN PROGRESS: 3**
- COMPLETED: 94**
- PAYOUT DUE (64): 49147.48**
- TOTAL EXPENSE: 0.00**
- TOTAL INCOME: 0.00**
- CREATE REPAIR ORDER**

### **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.

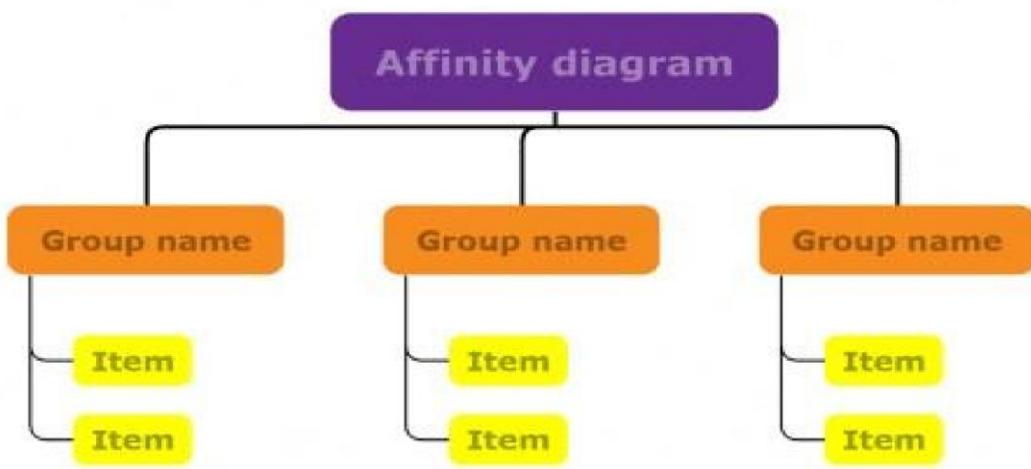
**Idea Listing:** All proposed ideas were documented, including:

- 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 is a toolbar with five buttons: "Add Vehicle" (car icon), "Update Vehicle Status" (document icon), "Make Action" (scissors icon), "Print By Vehicle Status" (print icon), and "View Full Vehicle Details" (eye icon). The main content area is a form for adding vehicle details. It includes fields for "Plate Number" (text input), "Type" (dropdown), "Model" (text input), "Color" (dropdown), "License Type" (dropdown), "Status" (dropdown), "Engine Type" (dropdown), "Fuel Type" (dropdown), "Engine Capacity" (text input), "Client Name" (text input), "Number of wheels" (dropdown), "Client Phone" (text input), "Wheels' Manufacturer" (text input), "Wheels' Air Pressure" (text input), "Number Of Doors" (dropdown), and a "Submit" button. The entire window has a light blue background.

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

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