

Ideation phase

Garage management system

Template

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Team ID	NM2025TMID02958
Project Name	Garage Management system
Maximum Marks	4 Marks

Garage Management System

1. Ideation Phase

The concept of the Garage Management System originates from the challenges commonly observed in traditional garages and vehicle service centers. Most garages follow manual record-keeping methods using paper files, notebooks, or registers. Over time, this leads to difficulties such as loss of records, incorrect billing, inefficient service tracking, miscommunication between workers, and delays in delivering vehicles to customers.

A digital Garage Management System aims to solve these issues by providing a centralized platform where all customer and vehicle-related activities can be stored, tracked, and updated in real-time.

Problems Identified in Traditional Garage Operations

- Manual job card entries are time-consuming and prone to errors.
- Lack of proper tracking for spare parts leads to inventory shortages or overstocking.
- Difficulty in maintaining service history for returning customers.
- Billing mistakes occur due to manual calculations.
- No real-time service progress updates for customers.

Proposed Solution

Develop a computerized system that:

- Stores all customer, vehicle, and service details in a secure database.
- Automatically generates job cards and assigns mechanics to tasks.
- Tracks spare parts usage and updates inventory levels.
- Calculates service and labor charges automatically.
- Generates service history and reports when needed.

Key Objectives

- Reduce paperwork and manual errors.
- Maintain centralized and secure records for customers and vehicles.
- Enhance transparency in service progress and billing.
- Improve customer satisfaction through timely delivery and accurate information.
- Save time and increase operational efficiency for garage staff. **Beneficiaries**

Beneficiary	Benefit
Garage Owner	Better business control and performance insights
Mechanics	Clear job assignments and workload management
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Beneficiary	Benefit
Customers	Faster service and accurate billing

Output of Ideation Phase

The result of this phase is a clear understanding of system needs and justification for developing a digital solution to overcome manual process challenges.

