

Project Design Phase

Proposed Solution

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| Date | 30 October 2025 |
| Team ID | NM2025TMID03420 |
| Project Name | Garage Management System |
| Maximum marks | 2 Marks |

Proposed Solution Template:

| S.No. | Parameter | Description |
|-------|---|--|
| 1. | Problem Statement (Problem to be solved) | Most garages still use manual methods like registers or spreadsheets to manage vehicle services, technician tasks, and billing. This leads to inefficient operations, missing records. |
| 2. | Idea / Solution Description | Develop a centralized Garage Management System that automates service bookings, job card creation, parts tracking, and invoicing. |
| 3. | Novelty / Uniqueness | The system combines job scheduling, inventory tracking, and billing into one streamlined platform. It can also integrate with payment gateways and SMS/email APIs . |
| 4. | Social Impact / Customer Satisfaction | The system improves garage efficiency, reduces wait times, and ensures transparent communication. |
| 5. | Business Model (Revenue Model) | The solution can follow a subscription-based model (SaaS) for small garages or an enterprise license for larger workshops. |
| 6. | Scalability of the Solution | The platform can scale to multiple branches or franchise garages, integrate with spare parts suppliers, and include |

Conclusion

Digitizing garage operations through Garage Management System (GMS) addresses operational inefficiencies in vehicle servicing and parts management. Technicians spend less time waiting, all technicians are informed with digital job servants and inventory, leading to improved service quality, and it moves faster invoicing and payment processes. Enhancing garage transparency reduces wait times, fosters positive customer relationships. Customers receive timely growth in revenues over optimizing revenues over time. It also creates digital employment workflows for mechanics and service staff.

Reference: Infographic created using AI Workflow Design Tool.

Solution Description:

The **Garage Management System** digitizes the entire vehicle service process — from customer booking to final delivery. It captures customer and vehicle information, automates service job creation, assigns tasks to technicians, tracks spare parts usage, and generates invoices automatically. The system enhances operational efficiency by reducing manual work, preventing data loss, and ensuring accurate service records. It improves transparency between customers and garage staff through real-time notifications and digital invoices. Scalable and customizable, this solution supports multiple garages, integrates payment gateways, and provides detailed performance analytics — leading to improved productivity, customer satisfaction, and profitability.