

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

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

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Vehicle Registration	Register new vehicles with owner details. Assign unique vehicle IDs. Upload related documents (RC, Insurance).
FR-2	Mechanic Management	Add and manage mechanic profiles. Assign skill categories to mechanics. Track mechanic availability.
FR-3	Job Assignment	Create repair or maintenance jobs. Assign jobs to available mechanics. Update job status (In Progress, Completed).
FR-4	Spare Parts Inventory	Add and manage spare parts. Update part stock when used. Generate alerts for low stock.
FR-5	Billing & Payment	Generate invoices after job completion. Include parts and labor cost. Record payment method (cash, card, online).
FR-6	Reporting	Generate daily and monthly reports. Track total revenue and completed jobs. View mechanic performance statistics.
FR-7	User Authentication	Secure login for admin, mechanics, and customers. Reset password functionality. Role-based access control.
FR-8	Notifications	Send alerts for job completion. Notify customers about repair status. Send low-stock notifications to admin.

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Interface should be intuitive and easy for garage staff to operate.
NFR-2	<b>Security</b>	All user data and billing details should be encrypted.
NFR-3	<b>Reliability</b>	System uptime should be 99% to ensure availability for users.
NFR-4	<b>Performance</b>	System should handle at least 100 simultaneous job entries without lag.
NFR-5	<b>Maintainability</b>	Code should be modular for easy updates and debugging.
NFR-6	<b>Backup &amp; Recovery</b>	Automatic daily backups for data recovery in case of failure.
NFR-7	<b>Scalability</b>	Should support expansion to multiple garage branches.