

Ideation Phase

Brainstorming

Date	07/11/2025
Team ID	NM2025TMID05731
Project Name	GARAGE MANAGEMENT SYSTEM

1.Introduction

Objective:

The brainstorming session for the Garage Management System is to generate innovative ideas that enhance and automate day-to-day garage operations. It aims to identify efficient ways to manage vehicle service records, track appointments, and streamline workflows between customers, mechanics, and administrators. The session also focuses on exploring solutions for integrating billing, payment, and feedback systems to improve transparency and accuracy.

Key Focus Areas:

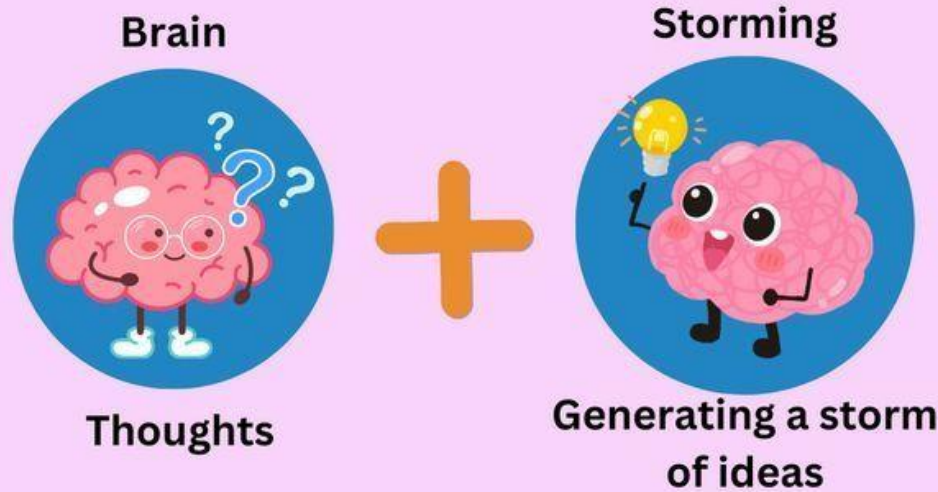
- 1) Service Management
- 2) Customer Management
- 3) Billing and Payment Integration
- 4) Inventory Management
- 5) Report and Analytics
- 6) User Experience (UX)

Participants:

- Project Manager
- System Analyst
- Software Developer
- UI/UX Designer
- Garage Owner / Administrator
- Mechanic / Technician

Brainstorming Method of Teaching

Meaning, Expert Definitions, Types, Purpose, Strategies, Importance, Brainstorming in the Classroom, Advantages and Disadvantages



Brain + Storming = Creative Idea Generation

2. Brainstorming Methodology

Techniques Used:

1. Mind Mapping:

Central Node: Garage Management System

Branches: Service Booking, Customer Records, Billing, Inventory Tracking, Reports,

2. SWOT Analysis:

Strengths: Automation, centralized database, real-time updates

Weaknesses: Initial setup time, training required

Opportunities: Improved efficiency, enhanced customer satisfaction, scalable solution

Threats: Data security risks, user resistance to technology adoption

3. “How Might We” Questions:

How might we improve coordination between customers and mechanics?

How might we automate billing and invoice generation?

How might we track and manage spare parts effectively?

3. Detailed Workflows

Workflow 1:

Service Booking Management

Customer books a service through the online portal or at the garage.

System assigns an available mechanic automatically.

Service schedule is displayed on the admin dashboard.

Notification sent to both customer and mechanic.

Status updates throughout the service process.

Workflow 2:

Billing and Payment Automation

Service completion triggers invoice generation.

System calculates total cost including parts and labor.

Customer receives payment link via app or email.

Transaction recorded in the system automatically.

Receipt generated and stored in customer history.

Workflow 3:

Inventory Tracking

Mechanic updates parts usage after each service.

System deducts used parts from stock automatically.

Alerts generated for low-stock items.

Admin reviews and places restock orders.

Inventory report updated on dashboard.

Conclusion

The brainstorming phase for the Garage Management System provided clear insights into user needs and operational challenges. The proposed ideas will automate service workflows, streamline billing, improve inventory control, and enhance customer satisfaction.