

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	08/11/2025
Team ID	NM2025TMID02958
Project Name	Garage Management system
Maximum Marks	5 Marks

## Garage Management System - Project Planning Phase

### 2. Project Planning Phase

The Project Planning Phase focuses on organizing the development workflow, assigning responsibilities, estimating time, and identifying the tools and technologies required. This phase ensures the project is executed systematically and delivered within the planned schedule.

#### Objectives of Planning

- Define the scope and boundaries of the project.
  - Allocate tasks and roles to team members.
  - Identify hardware, software, and development resources.
  - Create a timeline for project execution.
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#### Project Scope

The Garage Management System will include the following core operations: - **Customer and Vehicle Registration:** Store details about customers and their vehicles. - **Service Job Creation:** Generate job cards for vehicle servicing and track progress. - **Mechanic Assignment:** Assign tasks to mechanics based on workload and skill. - **Spare Parts Management:** Manage spare parts stock, update quantity after usage. **Invoice Generation:** Automatically calculate labor and parts cost to produce bills. - **Report Creation:** Generate service history, inventory, and billing reports.

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#### Tools & Technologies

Component	Technology Used
Frontend	HTML, CSS, JavaScript
Backend	Python / Java / PHP
Database	MySQL

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IDE / Editor      Visual Studio Code / Eclipse

These technologies ensure the system is scalable, maintainable, and easy to update.

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## Team Roles and Responsibilities

Role	Responsibility
Project Manager	Oversees project progress and ensures timely completion
Frontend Developer	Designs and develops user interface screens
Backend Developer	Implements business logic and database connectivity
Database Administrator	Designs and maintains database and backups
Tester	Conducts unit, integration, and performance tests

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## Timeline (Simplified Gantt Outline)

Stage	Duration	Description
Requirement Gathering	1 Week	Collect functional and non-functional requirements
System Design	2 Weeks	Create UI mockups, ER diagrams, and architecture plan
System Development	3 Weeks	Implement frontend, backend, and database modules
Testing & Optimization	1 Week	Validate system performance and remove bugs
Deployment	1 Week	Install system at the garage and provide training

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## Output of Planning Phase

- Defined system scope and objectives
- Selected development tools and technologies
- Assigned team roles and responsibilities
- Prepared timeline and resource plan

