**Project Planning Phase**

**Project Planning(Product,Backlog,SpritPlanning,Stories,Story point)**

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| **Date** | 25 JUNE 2025 |
| **Team ID** | LTVIP2025TMID31613 |
| **Project Name** | Garage Management System |
| **Maximum Marks** |  |

**Project Planning:**

**Product Backlog for Garage Management System**

**Customer & Vehicle Management**

* [High] As a receptionist, I want to add/edit customer details so that I can manage service records.
* [High] As a mechanic, I want to view a vehicle’s service history to diagnose issues quickly.
* [Medium] As a customer, I want to receive reminders for my next service date.

**Appointment & Job Scheduling**

* [High] As a manager, I want to assign jobs to mechanics based on availability.
* [Medium] As a customer, I want to book service slots online**.**

**Inventory Management**

* [High] As a storekeeper, I want to track spare part quantities to avoid stockouts.
* [Medium] As a technician, I want to request spare parts during a job.
* [Low] As a manager, I want low-stock alerts via email or SMS**.**

**Billing & Payments**

* [High] As a cashier, I want to generate invoices automatically after service completion.
* [Medium] As a customer, I want to pay online via UPI or card.
* [Low] As an accountant, I want to export monthly billing reports**.**

**Reporting & Analytics**

* [Medium] As a manager, I want a dashboard that summarizes daily operations.
* [Medium] As an owner, I want to track service trends by vehicle type or season.
* [Low] As a mechanic, I want to view performance stats (jobs completed, ratings).

**Notifications & Communication**

* [Medium] As a customer, I want to receive real-time updates when my vehicle is ready.
* [Low] As a manager, I want to send promotional messages to customers.

**Sprint planning:**

**Sprint 0 – Setup & Planning**

* Finalize product requirements and wireframes
* Define user personas and workflows
* Set up version control, CI/CD pipelines, and collaboration tools
* Assign team roles and prepare backlog

**Sprint 1 – Core Customer & Vehicle Management**

* Add/edit customer and vehicle profiles
* Basic UI for customer lookup and vehicle history
* Database schema setup

**Sprint 2 – Job Scheduling & Mechanic Allocation**

* Create job cards with service types
* Assign jobs to available mechanics
* View schedule dashboard

*Goal:* Garage manager can allocate work and view service pipeline

**Sprint 3 – Inventory & Billing**

* Parts catalog with stock levels
* Use parts in job cards
* Generate basic invoices
* *Goal:* Mechanic can use parts, and cashier can bill the customer

**Sprint 4 – Internal QA & Feedback**

* End-to-end flow testing
* UI polish and bug fixes
* Collect feedback from team or pilot garages

*Goal:* MVP workflow is smooth and usable

**Sprint 5 – Beta Launch & Customer Feedback**

* Launch to 1–2 real garages
* Add feedback loop (e.g., feedback form or survey)
* Tweak features based on real usage

**Stories:**

**Receptionist / Admin**

* *As a receptionist*, I want to register a new customer and their vehicle quickly so I can keep service queues moving.
* *As a receptionist*, I want to schedule appointments and assign them to available mechanics.
* *As an admin*, I want to configure garage hours and holiday calendars to avoid scheduling conflicts.

**Inventory Manager**

* *As an inventory manager*, I want to track incoming and outgoing spare parts to maintain accurate stock records.
* *As an inventory manager*, I want to get low-stock alerts so I can restock parts before they run out.
* *As an inventory manager*, I want to generate monthly inventory reports for procurement planning**.**

**Cashier / Accountant**

* *As a cashier*, I want to generate an invoice once a service is completed so the customer can pay and leave promptly.
* *As a cashier*, I want to accept payments in cash, card, or digital mode.
* *As an accountant*, I want to export daily and monthly billing summaries for auditing purposes.

**Garage Owner / Manager**

* *As a manager*, I want to view daily job status and staff workload to ensure smooth operations.
* *As a manager*, I want access to key metrics like revenue, repeat customers, and high-demand services.
* *As a manager*, I want to send promotional offers to customers to boost repeat business**.**

**Customer (via Web or App)**

* *As a customer*, I want to book a service appointment online so I can avoid calling or waiting in line.
* *As a customer*, I want to get SMS/WhatsApp updates when my vehicle is ready.
* *As a customer*, I want access to my vehicle's service history in case I need it for resale or insurance claims**.**

**Story points:**

**Customer & Vehicle Management:**

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| --- | --- | --- |
| **story** | **points** | **why** |
| Add/Edit customer profiles | 3 | Simple forms with validations |
| Link vehicle to customer | 3 | Requires relational mapping |

**Job Scheduling& Assignment**

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| --- | --- | --- |
| **story** | **points** | **why** |
| Create service job card | **3** | Captures issue, service type, mechanic |
| Assign jobs to mechanic | **5** | involves calendar integration, conflict checks |
| View daily job list | **2** | Moderate UI filtering logic |