Planning Logic – Garage Management System (GMS)

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1. Define Core Objectives

- **Understand real-world garage operations**
- **Identify frequent customer and staff pain points**
- **Translate each problem into a modular Salesforce feature**

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2. Break Down into Modules

Each module is treated as an independent logical block, designed to be built, tested, and improved iteratively.

Module	Purpose	Planning Logic
Customer & Vehicle Management	Store & link customer data with vehicle details	Use Salesforce Accounts, Contacts, and a custom object Vehicle__c. Auto-link relationships.
Service Appointment Booking	Enable customers to book service slots	Use Flow Builder for time selection, create Service_Appointment__c records, and trigger assignment logic.
Mechanic Assignment System	Assign jobs to available mechanics	Use Apex logic or assignment rules based on mechanic availability and skill.
Service Workflow Tracker	Update and visualize service stages	Add status picklist field; create flows to auto-update or let staff manually progress.
Inventory Control	Track parts in and out per job	Custom Inventory__c object with part quantity, usage log, and stock threshold alerts.
Billing & Invoicing	Auto-generate bills based on service & parts	Use Flow + PDF generator; auto-calculate taxes, totals, and store invoices.
Notifications System	Keep customers informed	Use Process Builder or Flows to send Email/SMS updates at key stages.

Module	Purpose	Planning Logic
Dashboards & Reports	Monitor service trends and staff performance	Design reports for booking count, revenue, mechanic load, and inventory movement.

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3. Sprint-Based Development Plan

Sprint	Timeline	Modules Covered
Sprint 1	Week 1	Customer/Vehicle Objects, Portal Setup
Sprint 2	Week 2	Booking Flow, Mechanic Assignment Logic
Sprint 3	Week 3	Service Status Tracker, Inventory System
Sprint 4	Week 4	Notifications, Billing Flow, Dashboard Setup
Sprint 5	Week 5	Testing, Feedback Loop, Documentation, Deployment

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4. Feedback and Iteration Logic

- **Customer feedback loop after booking & service**
- **Use Validation Rules to maintain data accuracy**
- **Schedule regular sandbox testing and feedback sessions with test users (e.g., service staff)**

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5. Risk Planning & Contingency

Potential Risk	Planned Mitigation
Booking conflicts	Use real-time mechanic availability checks in Flow
Inventory not updated	Add mandatory part log-in flow before service status can be marked "Complete"
Staff not trained	Use in-app guidance and Salesforce prompts during form usage
Email/SMS delays	Integrate reliable 3rd party (e.g., Twilio) with retry logic