

# Auto Service Manager - Salesforce Project Implementation Plan

## CAPSTONE PROJECT- SALESFORCE

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# Phase 1: Problem Understanding & Industry Analysis

This document outlines the foundational phase of the **AutoService Manager** project, a comprehensive Salesforce solution for "AutoFix Garage." The goal of this phase is to establish a clear understanding of the business's challenges, define the project's scope, and set the strategic direction for the implementation. This phase is entirely focused on analysis and documentation, serving as the blueprint for all subsequent development.

## **1.0 The Business and Its Challenges: A Detailed Problem Statement**

AutoFix Garage is a well-established auto repair shop that, despite its high volume of business (servicing over 200 vehicles per month), operates on outdated and inefficient manual processes. Their reliance on paper-based forms, phone calls, and word-of-mouth communication has created significant operational bottlenecks and a poor customer experience. The project seeks to address the following critical pain points:

- **Lost or Inaccessible Service History:** With all records stored in physical folders, technicians often lack a complete service history for a vehicle. This leads to redundant diagnostics, wasted time, and a fragmented understanding of the vehicle's maintenance needs. The manual system makes it impossible to quickly access and analyze past work, potentially leading to errors and a lack of preventative service recommendations.
- **Inefficient Scheduling and Double-Bookings:** Appointment scheduling is managed via a manual calendar. Service advisors often double-book appointments, leading to customer frustration and wasted technician time. There is no automated system to check for technician availability or allocate time slots efficiently, resulting in a chaotic and reactive scheduling process.
- **Manual Inventory Management and Parts Shortages:** The parts inventory is tracked on a spreadsheet that is not updated in real-time. This leads to frequent stockouts of critical parts, forcing technicians

to stop work and wait for new parts to arrive. The lack of a clear, centralized inventory system also makes it difficult to track parts usage, identify top-moving items, and reorder proactively.

- **Poor Customer Communication:** Customers are left in the dark about the status of their vehicle. They have to call the garage for updates, and there is no automated way to notify them when their vehicle is ready for pickup or if a service has been completed. This lack of transparency erodes customer trust and satisfaction.
- **Absence of Performance Tracking:** Without a digital system, the management team has no way to track key performance indicators (KPIs). They cannot measure technician productivity, analyze the profitability of different services, or identify recurring issues. This prevents data-driven decision-making and limits the garage's ability to optimize its operations and grow the business.

The **AutoService Manager** project will create a unified platform on Salesforce to automate these processes, digitize records, and provide real-time visibility into every aspect of the garage's operations.

## 2.0 Stakeholder Analysis & Project Roles

A successful project requires a deep understanding of the people who will be using the system and how their roles will be impacted. The key stakeholders for AutoFix Garage have been identified, and their current responsibilities and needs are documented below:

- **Service Advisors:** The primary front-end users. They are responsible for customer check-in, scheduling appointments, creating work orders, and managing customer communication. They need a user-friendly interface to quickly find customer and vehicle information, create new records, and assign jobs to technicians without conflicts.
- **Technicians:** The core users who perform the actual service work. They will primarily use a mobile interface to view their assigned work orders, update job status, record labor time, and list the parts used. Their main need is a simple, intuitive mobile experience that allows them to access all necessary information from the garage floor.
- **Shop Manager:** The key decision-maker and administrator. They need a comprehensive dashboard to monitor overall shop performance,

track technician productivity, and approve high-cost work orders. They are responsible for managing the team and ensuring operational efficiency.

- **Parts Manager:** A crucial back-end user who manages the parts inventory. They need real-time visibility into stock levels and automated alerts for low inventory. They will be responsible for placing new orders and updating the inventory system.
- **Customers:** While they are not direct users of the internal Salesforce org, their experience is a central focus of the project. They will interact with the system indirectly through automated communications (SMS/email) and potentially a customer portal for scheduling appointments and viewing their service history.

### 3.0 Business Process Mapping: Current vs. Proposed Workflow

To fully grasp the scope of the project, the current business process has been meticulously mapped out. This "as-is" analysis provides a clear picture of the manual workflows and highlights the critical junctures where the Salesforce solution will provide the most value.

#### Current "As-Is" Business Process Flow:

1. **Customer Inquiry:** A customer calls the garage to schedule a service.
2. **Manual Scheduling:** The service advisor checks a paper calendar and manually writes down the appointment details.
3. **Work Order Creation:** The customer arrives, and the advisor fills out a multi-part paper work order form. A physical folder is created or located.
4. **Diagnosis:** A technician diagnoses the vehicle's issue and verbally communicates the findings to the service advisor.
5. **Manual Parts Check:** The technician or parts manager manually checks the physical inventory or a spreadsheet to see if the required parts are in stock.
6. **Service Execution:** The technician performs the service, manually recording labor time and parts used on the paper work order.

7. **Customer Communication:** The service advisor calls the customer to provide status updates or notify them when the vehicle is ready.
8. **Finalization:** The service advisor manually calculates the total cost and prepares a paper invoice for payment.
9. **Record Filing:** The completed paper work order is filed away in a cabinet, making it difficult to retrieve in the future.

#### **Proposed "To-Be" Business Process Flow with Salesforce:**

1. **Customer Inquiry:** Customer calls, and the service advisor creates a new Work Order record in Salesforce.
2. **Digital Scheduling:** The advisor uses a scheduling interface to check technician availability and book an appointment, which is automatically added to a shared calendar.
3. **Vehicle Check-in:** The customer arrives, and the advisor scans the VIN, which automatically populates vehicle details via an external API call. This creates a digital Work Order record linked to the Account and Contact.
4. **Diagnosis:** The technician receives the Work Order on their mobile device and updates the status to "In Progress."
5. **Real-Time Inventory Check:** The technician or parts manager checks part availability directly within Salesforce. A Parts\_Used\_\_c junction object is created, automatically decrementing the Parts\_Inventory\_\_c stock.
6. **Service Execution:** The technician logs their time and parts used directly on the Work Order record via their mobile device. Photos of the completed work can be uploaded.
7. **Automated Communication:** A flow automatically sends an SMS notification to the customer when the work order status changes to "Completed." An email with a summary and invoice is also sent.
8. **Digital Payment & History:** Payment is processed, and a Service\_History\_\_c record is automatically created, providing a permanent digital record of the service.

9. **Reporting:** The Shop Manager's dashboard is updated in real-time with all performance metrics, and a batch job generates a monthly report.

#### 4.0 Industry Analysis & AppExchange Exploration

The automotive repair industry is ripe for digital transformation. While many shops still rely on manual methods, the move towards digital solutions is accelerating. The **AutoService Manager** project positions AutoFix Garage at the forefront of this trend.

A comprehensive analysis of the Salesforce AppExchange revealed several potential pre-built solutions. However, a custom-built solution was chosen for this project for the following reasons:

- **Specificity of Needs:** The garage's unique workflows, especially in inventory and technician scheduling, are better served by a tailored solution.
- **Learning Opportunity:** This project is a capstone that aims to showcase a full range of Salesforce skills, including both declarative (Admin) and programmatic (Developer) capabilities. Building from scratch provides a holistic learning experience.
- **Cost-Effectiveness:** Building a custom, in-house solution based on standard Salesforce licensing is more cost-effective than purchasing a full-featured AppExchange product, which often comes with per-user fees and additional integration costs.

This phase concludes with a clear understanding of the project's purpose, the people involved, the processes to be automated, and the strategic decision to build a custom solution. This documentation will serve as the guiding light for all future development.

## Phase 2: Org Setup & Configuration - Step-by-Step Guide for Salesforce Org