# 🚗 Garage Management System (Salesforce Developer Project)

> A CRM project to manage customer details, appointments, service records, billing, and feedback for automotive garages, built using Salesforce Developer tools.

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## 🧾 Project Overview

The Garage Management System is designed to:

- Optimize customer service and vehicle tracking

- Automate appointments and reminders

- Enable real-time repair tracking

- Manage parts inventory and billing

- Improve customer satisfaction and business insights

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## 🧩 Key Features

- Customer Detail Management

- Appointment Scheduling & Notifications

- Service Record Tracking

- Billing & Invoicing

- Feedback Collection

- Reports and Dashboards

- Automation with Flows, Triggers, and Validation

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## 💻 APEX CODE

### 1. AmountDistribution.apxt (Trigger)

apex

trigger AmountDistribution on Service\_Records\_\_c (before insert, before update) {

for(Service\_Records\_\_c sr : Trigger.new) {

if(sr.Appointment\_\_r != null && sr.Appointment\_\_r.Service\_Amount\_\_c != null) {

sr.Payment\_Paid\_\_c = sr.Appointment\_\_r.Service\_Amount\_\_c;

}

}

}

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### 2. AmountDistributionHandler.apxc (Apex Class)

apex

public class AmountDistributionHandler {

public static void updateAmount(List<Service\_Records\_\_c> serviceRecords) {

for(Service\_Records\_\_c sr : serviceRecords) {

if(sr.Appointment\_\_r != null && sr.Appointment\_\_r.Service\_Amount\_\_c != null) {

sr.Payment\_Paid\_\_c = sr.Appointment\_\_r.Service\_Amount\_\_c;

}

}

}

}

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## 🔁 FLOW FORMULAS

### 1. Payment Auto Update Flow

\*Target Field\*: Payment\_Paid\_\_c

text

{!$Record.Service\_records\_\_r.Appointment\_\_r.Service\_Amount\_\_c}

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### 2. Email Notification Flow

\*Recipient Email Field\*:

text

{!$Record.Service\_records\_\_r.Appointment\_\_r.Customer\_Name\_\_r.Gmail\_\_c}

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## ✅ VALIDATION RULES

### 1. Appointment Date Cannot Be in the Past

text

Appointment\_Date\_\_c < TODAY()

\*Error Message\*: Appointment date cannot be before today.

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### 2. Billing Amount Must Be Greater Than Zero

text

Billing\_Amount\_\_c <= 0

\*Error Message\*: Billing amount must be more than zero.

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## ❌ DUPLICATE RULES

### Matching Rule for Customer Gmail

- Field: Gmail\_\_c

- Matching Method: Exact

### Duplicate Rule

- Allow Duplicates: ❌ No

- Show Alert: ✅ Yes

- Applies On: Create & Edit

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## 📊 REPORTS

\*Sample Report: New Services Report\*

- Fields:

- Customer Name

- Appointment Date

- Service Amount

- Feedback Rating

- Filter: CreatedDate = THIS\_MONTH

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## 📈 DASHBOARD COMPONENTS

- 💰 Total Revenue (Sum of Service\_Amount\_\_c)

- 👨‍🔧 Services Per Technician

- ⭐ Average Feedback Rating

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## 🧪 TESTING STRATEGY

- Positive, Negative, and Bulk Tests for Triggers & Classes

- UAT (User Acceptance Testing)

- Performance Testing for large records

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## 🙋‍♀ Author

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