GARAGE MANAGEMENT SYSTEM

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College code : brubw.

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*INTRODUCTION:-

The **Garage Management System (GMS)** is a software solution designed to streamline the operations of automobile garages and service centers. It helps in managing various tasks such as vehicle service records, customer information, billing, inventory management, and employee tracking.

Traditional garage management relies heavily on manual record-keeping, which can lead to inefficiencies like misplaced data, calculation errors, and time

delays. By digitalizing these processes, the GMS improves workflow, enhances customer satisfaction, and reduces human error.

This project is developed using modern technologies to ensure a **user-friendly interface**, **secure data storage**, and **efficient service tracking**.

*PURPOSE:-

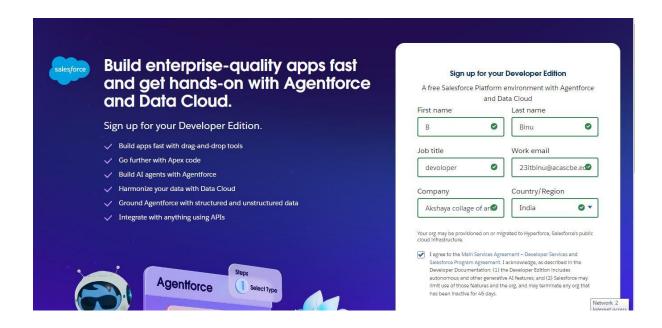
The main purpose of developing the Garage Management System is to:

- Automate and simplify garage operations.
- Maintain accurate records of customers, vehicles, and services.
- Reduce paperwork and manual errors.
- Provide easy access to vehicle service history.
- Improve customer experience with faster service and transparent billing.
- Manage inventory and spare parts efficiently.
- Generate reports for business insights and decision-making.

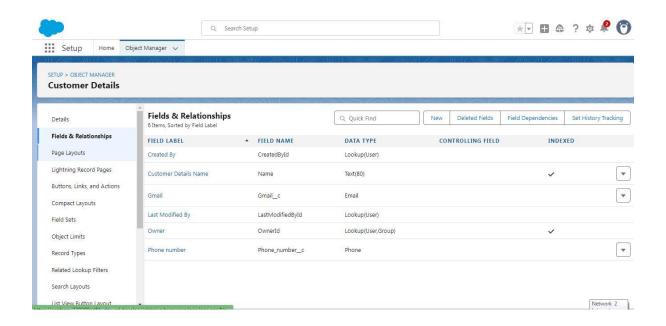
*DEVELOPMENT PHASE:-

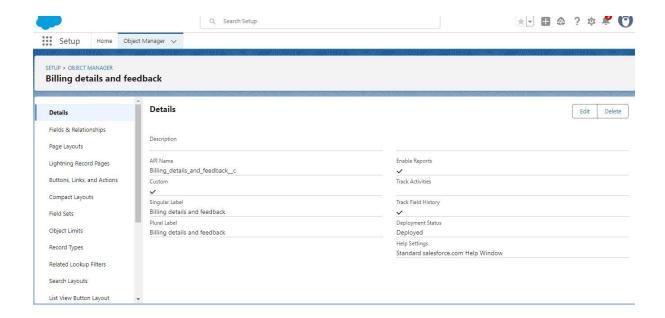
Creating Developer Account: By Using URL:

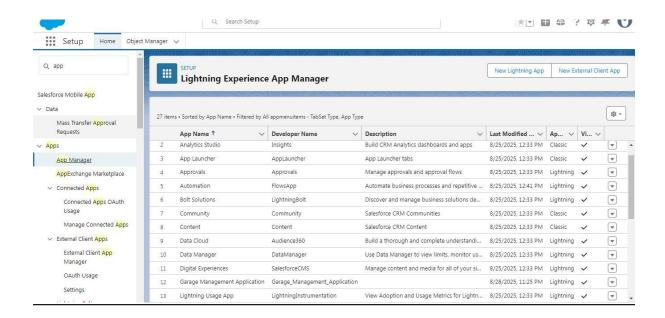
https://developer.salesforce.com/signup

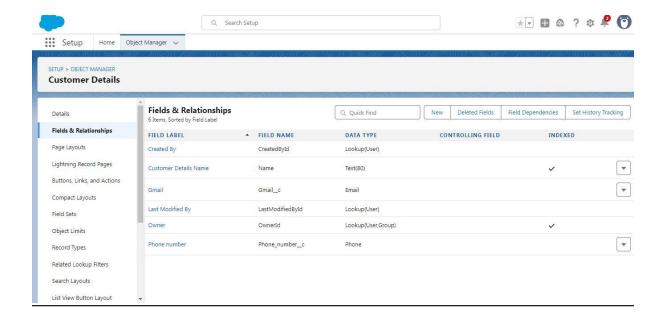


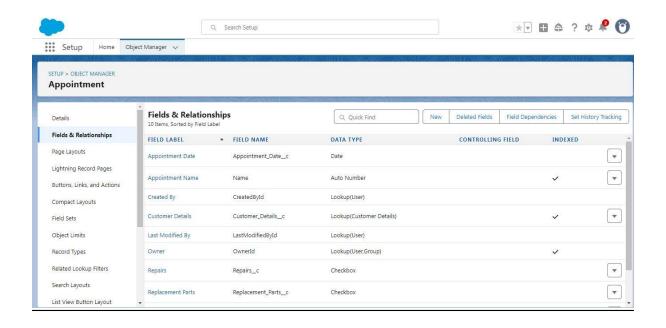
CREATING OBJECT:

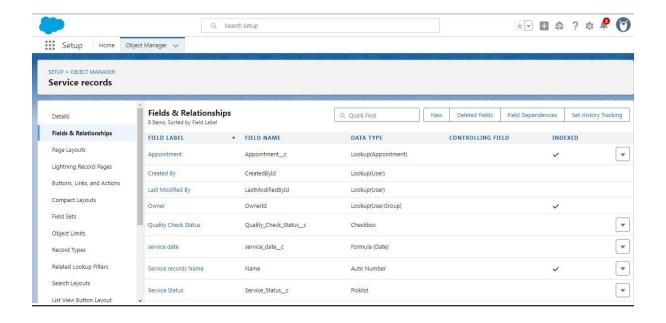


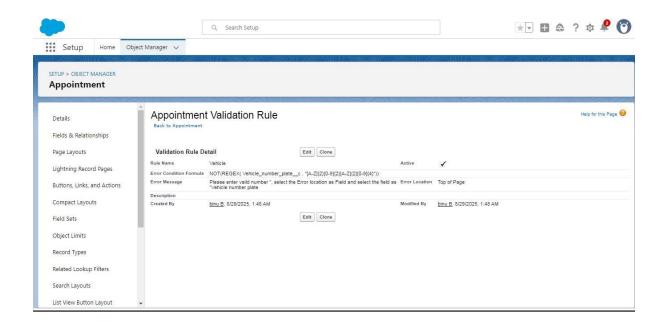


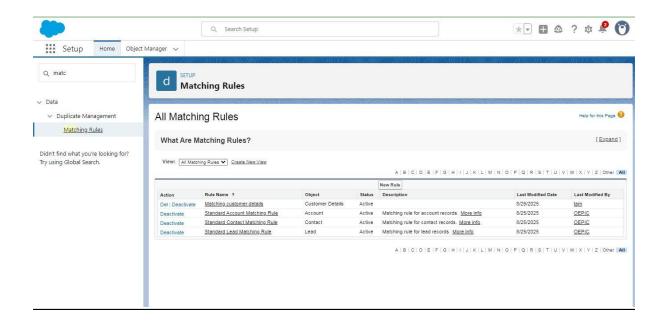


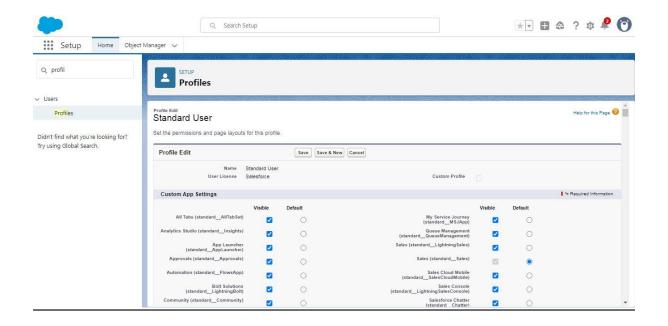


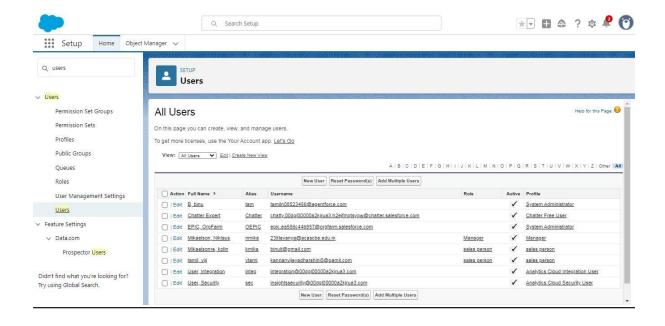


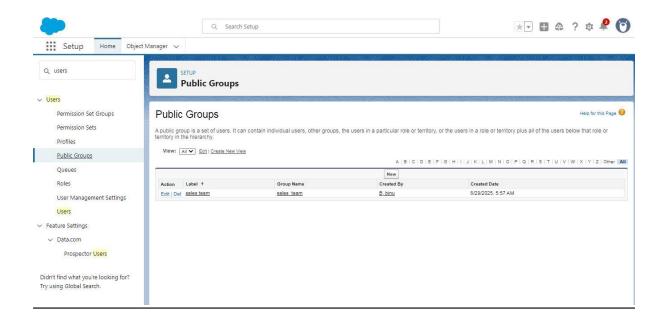


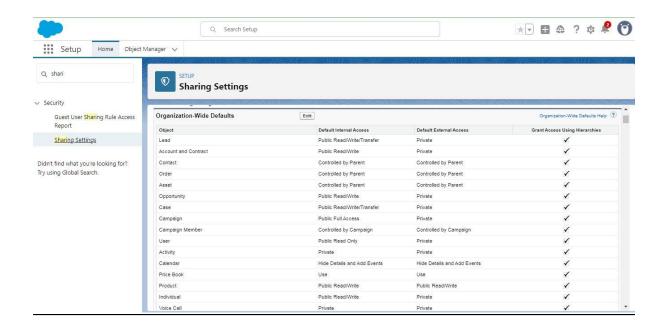


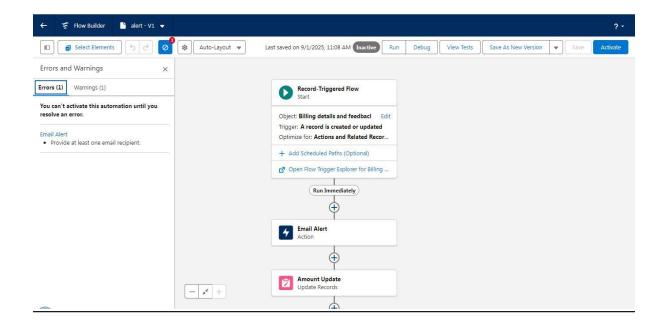






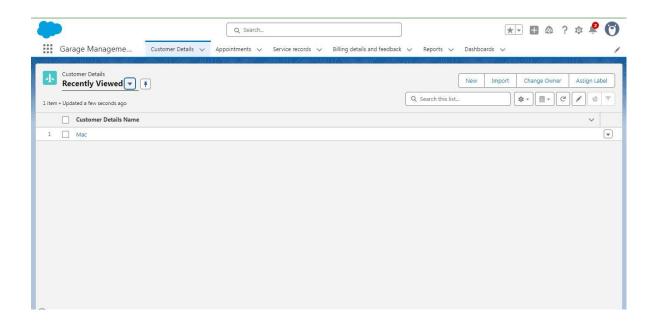




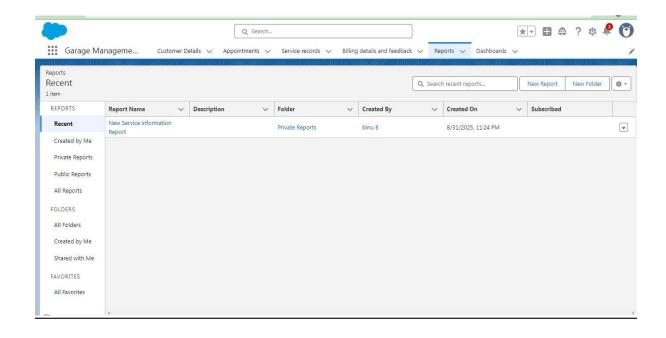


APEX TRIGGER:

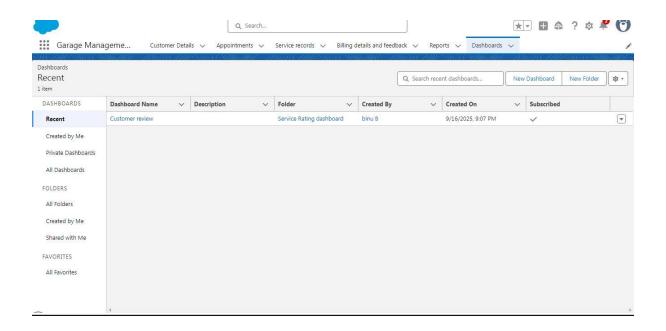
CUSTOMER DETAILS:

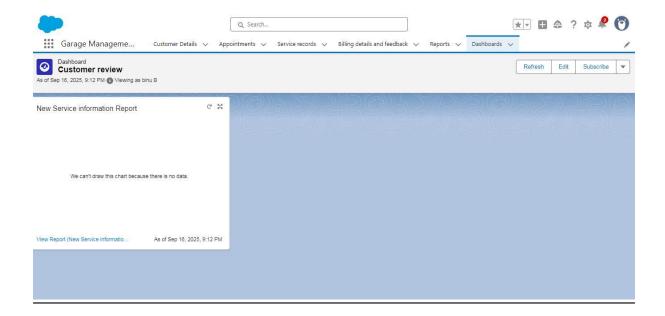


REPORTS:

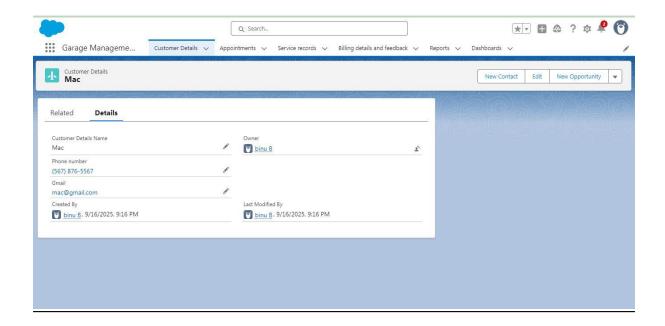


DASHBOARDS:-





RESULT:



APEX HANDLER:

<pre>public class AmountDistributionHandler {</pre>

<pre>public static void amountDist(list<appointment c=""> listApp){</appointment></pre>
list <service_recordsc> serList = new list <service_recordsc>();</service_recordsc></service_recordsc>
for(Appointment_c app : listApp){
if(app.Maintenance_servicec == true && app.Repairsc == true &&
<pre>app.Replacement Parts c == true){</pre>
app.Service Amount c = 10000;
}
else if(app.Maintenance_service_c == true && app.Repairs_c == true){
app.Service_Amountc = 5000;
}
else if(app.Maintenance_service_c == true &&
<pre>app.Replacement_Partsc == true){</pre>
app.Service_Amountc = 8000;
}
else if(app.Repairs $c == true \&\& app.Replacement Parts c == true){$
app.Service_Amountc = 7000;
}
else if(app.Maintenance_service_c == true){
app.Service Amount c = 2000;
}
else if(app.Repairsc == true){
app.Service Amount c = 3000;

}				
e	else if(app.Rep	olacement	Parts	c == true){
	app.Service	_Amount_	c = 50	<u>00;</u>
}				
_}				
_}				
}				

TRIGGER HANDLER:-

trigger AmountDistribution on Appointment c (before insert, before update) {
<u> </u>
if(trigger.isbefore && trigger.isinsert trigger.isupdate){
AmountDistributionHandler.amountDist(trigger.new);
_}
}

ADVANTAGES AND DISADVANTAGES:

1.ADVANTAGES:

Efficient Record Management

- Stores all customer, vehicle, and service data digitally.
- Easy to search and retrieve historical service details.

Time-Saving

- Reduces manual work, allowing employees to focus on essential tasks.
- Faster billing and report generation.

Error Reduction

• Minimizes human mistakes in calculations and data entry.

Inventory Control

- Keeps track of spare parts and stock levels.
- Sends alerts when stock is low.

Improved Customer Service

- Provides detailed invoices and real-time updates on repairs.
- Builds trust through transparent service records.

Scalability

• Can be expanded as the business grows by adding more features.

1.DISADVANTAGES:

Initial Cost

• Setting up the system and hardware may require a high initial investment.

Technical Issues

• System downtime or technical failures may disrupt operations.

Training Requirement

• Staff members need proper training to use the system effectively.

CONCLUSION:

The Garage Management System is a comprehensive solution designed to digitalize and streamline garage operations. It addresses the challenges of manual record-keeping, such as inefficiency, data loss, and errors, by providing a reliable and user-friendly platform for managing customer details, vehicle service history, inventory, and billing.

By automating routine tasks, this system significantly **improves productivity**, **reduces paperwork**, and **enhances customer satisfaction** through faster and more transparent services. While initial implementation and training may require effort, the long-term benefits — including better data accuracy, organized workflow, and business growth — far outweigh these challenges.

In conclusion, this project represents a **step towards digital transformation** in the automobile service industry, helping garages operate more efficiently, make informed decisions, and deliver higher-quality service to their customers.