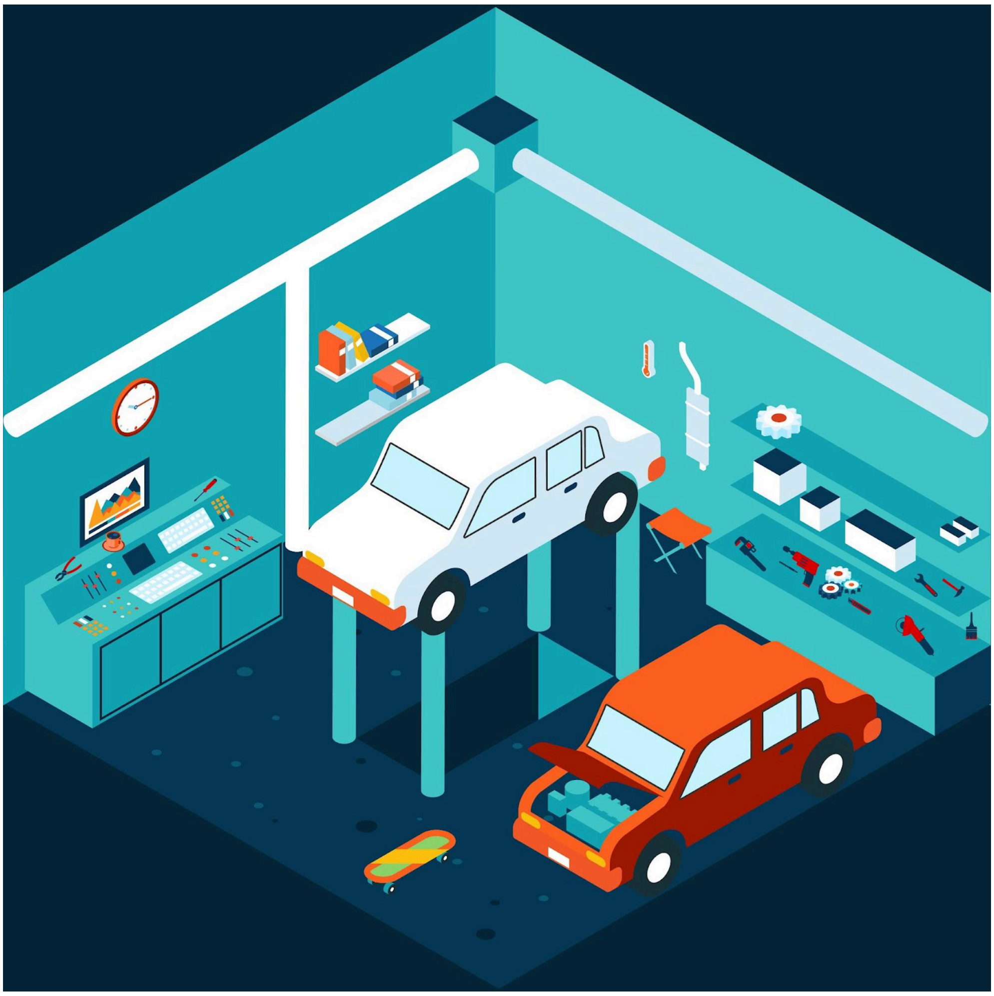
GARAGE MANAGEMENT SYSTEM



Project By,

Name	:	Raja Mohamed M
Mail id	:	rajamohamedcse@gmail.com
College Name	:	Mahendra Engineering College(Autonomous), Namakkal

INDEX

Getting Started with Salesforce:

Are you new to Salesforce and unsure of what it is or how to get started? If you're feeling a bit lost, don't worry—you're in the right place. This module is designed just for you.

Welcome to Salesforce, a revolutionary platform packed with features that can enhance productivity and help you sell more effectively and efficiently. As you work towards earning your badge in this module, we'll guide you through these features and help you answer the question, "What exactly is Salesforce?"

What is Salesforce?

Salesforce is a comprehensive customer success platform designed to assist you in selling, providing service, marketing, analysing data, and connecting with your customers. It offers everything you need to operate your business from anywhere. With its standard products and features, you can manage relationships with prospects and customers, collaborate with employees and partners, and securely store your data in the cloud.

Before Salesforce, organising your contacts, emails, and tasks might have looked like this: link.

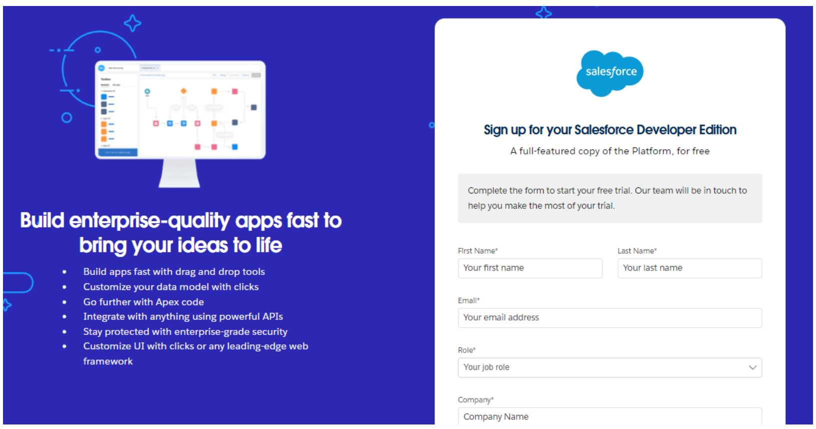
Introduction

This document provides an overview of the design and implementation process for a Garage Management System using Salesforce. The objective is to streamline garage operations and enhance customer satisfaction by effectively managing customer data, appointments, service records, billing details, and feedback.

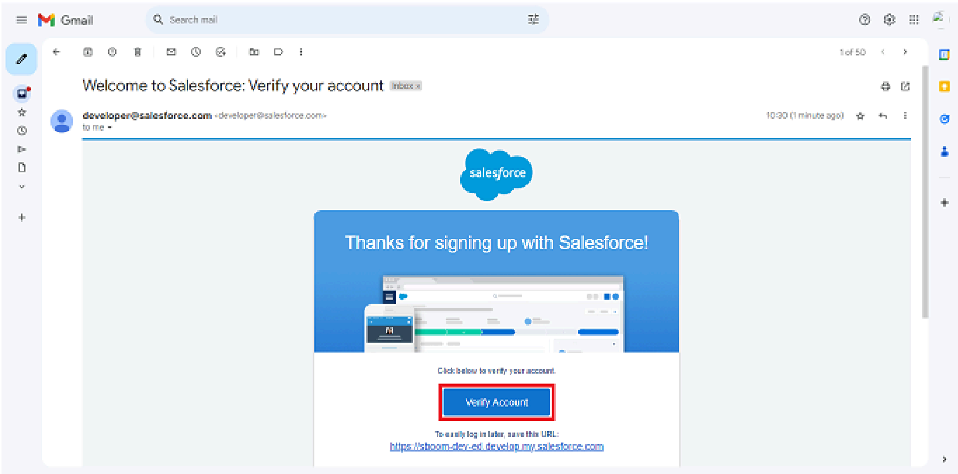
Step-by-Step Process:

1. Create a Salesforce Developer Account

- **Sign Up:**
  - Go to the Salesforce Developer Signup page.
  - Complete the sign-up form with the following information:
    - First Name and Last Name
    - Email Address
    - Role: Choose "Developer"
    - Company: Enter your college or organisation name
    - Country: Select your country (e.g., India)
    - Postal Code: Provide your postal code
    - Username: Create a unique username in the format username@organization.com
  - Click "Sign Me Up" to submit the form.



- **Account Activation:**
    - Check your email inbox for an activation email from Salesforce.
    - Click on the "Verify Account" link in the email.
    - Set a password and answer the security question.
    - Once your password is set, you will be redirected to the Salesforce setup page.

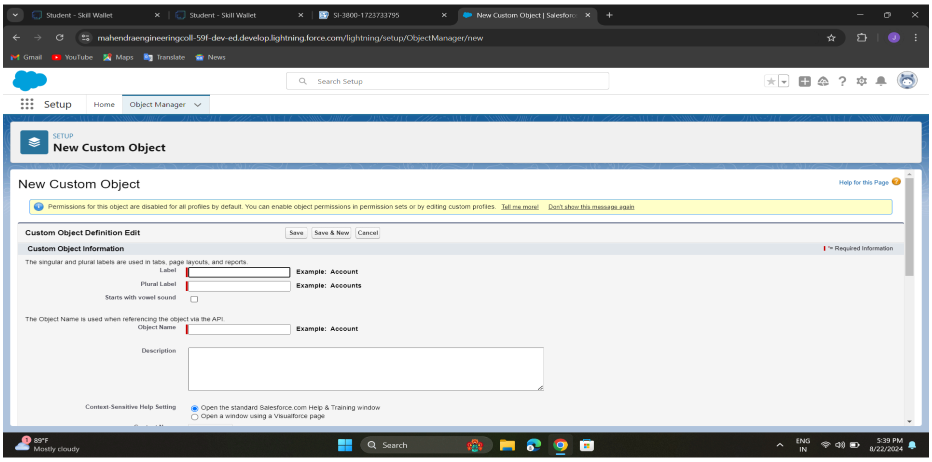


2. Create Custom Objects

Custom objects in Salesforce function like database tables, allowing you to store business-specific information. Here's how to create them:

Steps to Create Custom Objects:

- **Navigate to Object Manager:**
    - In the Salesforce Setup menu (click the gear icon), select "Object Manager."



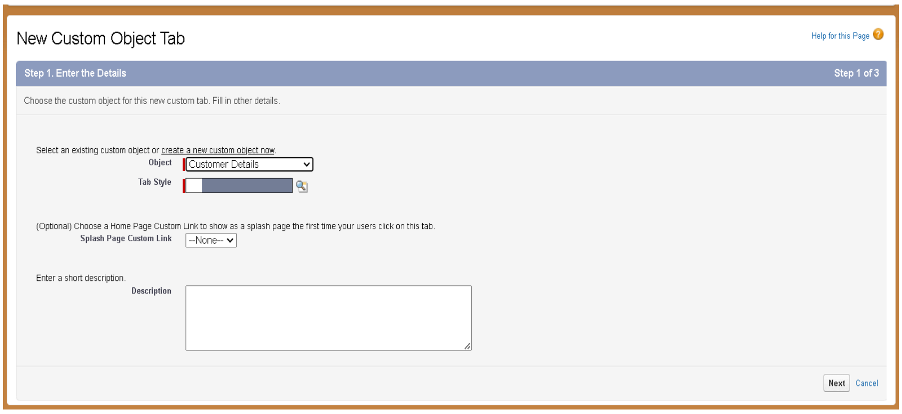
- **Create an Object:**
    - Click "Create" and choose "Custom Object."
    - Enter the object details for each type:
        - Customer Details
        - Appointment
        - Service Records
        - Billing Details and Feedback
    - For each object, set the following:
        - **Label:** Name the object (e.g., Customer Details)
        - **Plural Label:** Provide the plural form (e.g., Customer Details)
        - **Record Name:** Define the primary field for records (e.g., Customer Name for Customer Details)
        - **Data Type:** Choose the appropriate type (e.g., Text, Auto Number)
        - Enable options like "Allow Reports," "Track Field History," and "Allow Search."
    - Click "Save" to create the object.

3. Create Custom Tabs

Tabs offer a user-friendly way to access custom objects and records.

Steps to Create Custom Tabs:

- **Navigate to Tabs:**
  - Go to Setup → Tabs → New (under Custom Object Tabs).



- **Create a New Tab:**
  - Select the object (e.g., Customer Details) from the list.
  - Choose a tab style and icon to represent the object.
  - Click "Next," configure visibility settings for profiles, and click "Save."
- **Repeat for Remaining Objects:**
  - Create tabs for Appointments, Service Records, and Billing Details and Feedback using the same steps.

4. Create a Lightning App

A Lightning App combines objects, tabs, and other elements to provide users with easy access to various features.

Steps to Create a Lightning App:

- **Navigate to App Manager:**
  - Go to Setup → App Manager → New Lightning App.
- **Configure the App:**
  - **App Details:** Give your app a name (e.g., Garage Management Application).
  - **App Options:** Choose default settings or customize them as needed.
  - **Navigation Items:** Add tabs for your custom objects (e.g., Customer Details, Appointments).

- **Utility Items:** Set up the utility bar if needed.
- **User Profiles:** Assign the app to specific user profiles (e.g., System Administrator).

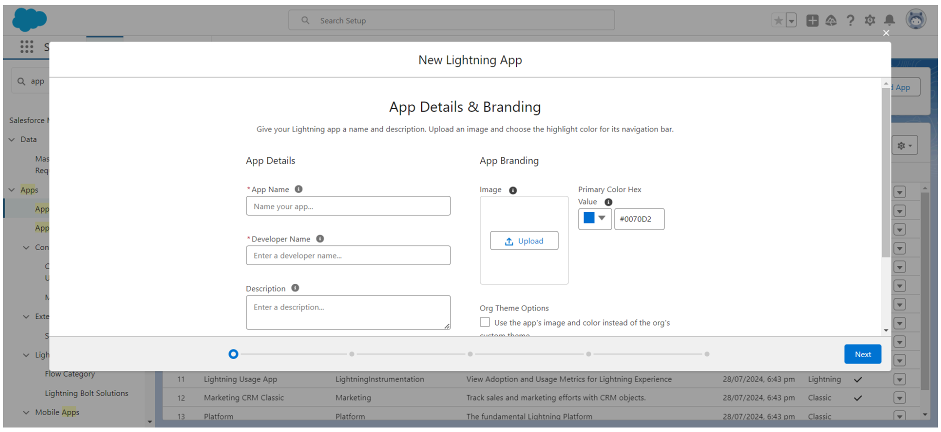
- **Save and Finish:**
  - Review your settings and click "Save & Finish" to complete the app creation.

5. Define and Create Custom Fields

Fields represent the individual data points stored in each object, and custom fields are designed to meet your specific requirements.

Steps to Create Custom Fields:

- **Navigate to Fields & Relationships:**
  - Go to Setup → Object Manager → Select the Object (e.g., Customer Details) → Fields & Relationships → New.



- **Create Field Types:**
  - **Text:** For fields like Phone Number or Vehicle Number Plate.
  - **Date:** For fields like Appointment Date.
  - **Currency:** For fields like Service Amount.
  - **Checkbox:** For fields like Maintenance Service, Repairs.
  - **Picklist:** For fields like Service Status or Payment Status.
  - **Formula:** For calculated fields, such as Service Date (use the formula function to calculate dates based on other fields).

- **Configure Field Properties:**
  - Set the field label, data type, and properties, such as required, unique, or read-only, as needed.
  - Click "Next," configure field-level security and page layouts, then click "Save."

6. Create Lookup Relationships

Lookup relationships connect records from different objects, facilitating data integration.

Steps to Create Lookup Relationships:

- **Navigate to Fields & Relationships:**
  - Go to Setup → Object Manager → Select the Object (e.g., Appointment) → Fields & Relationships → New.
- **Create a Lookup Relationship:**
  - Choose "Lookup Relationship" as the field type.
  - Select the related object (e.g., Customer Details for Appointments).
  - Configure the relationship properties and any necessary filters.
  - Click "Save" to create the relationship.
- **Repeat for Additional Objects:**
  - Set up lookup relationships for other objects as needed (e.g., linking Service Records to Appointments).

7. Define Validation Rules

Validation rules maintain data integrity by enforcing specific criteria.

Steps to Create Validation Rules:

- **Navigate to Validation Rules:**

    - Go to Setup → Object Manager → Select the Object (e.g., Appointment) → Validation Rules → New.
- **Define Rule Criteria:**
    - Enter the rule name, description, and the criteria using formulas to specify the conditions for valid data.
    - Provide error messages to be shown when the validation criteria are not met.
- **Save and Test Rules:**
    - Click "Save" to activate the rule.
    - Test the rule by entering data to ensure it functions correctly.

8. Configure Reports and Dashboards

Reports and dashboards offer valuable insights and visual representations of data.

Steps to Configure Reports:

- **Navigate to Reports:**
    - Go to Setup → Reports & Dashboards → Reports → New Report.
- **Create a Report:**
    - Choose the report type and set up the filters and columns.
    - Save and run the report to review the data.
- **Create a Dashboard:**
    - Go to Setup → Reports & Dashboards → Dashboards → New Dashboard.
    - Add components like charts and graphs to represent report data visually.
    - Configure the dashboard settings and share it with users as needed.

9. Set Up Workflow Rules and Automation

Automation streamlines repetitive tasks and processes.

Steps to Set Up Workflow Rules:

- **Navigate to Workflow Rules:**
    - Go to Setup → Workflow Rules → New Rule.
- **Define Rule Criteria:**
    - Select the object and specify criteria for when the workflow should be triggered.
    - Define actions such as email notifications, field updates, or task creation.
- **Activate the Workflow Rule:**
    - Click "Save" and then "Activate" to enable the rule.

Steps to Use Process Builder:

- **Navigate to Process Builder:**
    - Go to Setup → Process Builder → New Process.
- **Define the Process:**
    - Use the visual interface to set up process criteria and actions.
    - Save and activate the process.

Automation streamlines repetitive tasks and processes.

Steps to Set Up Workflow Rules:

- **Navigate to Workflow Rules:**
    - Go to Setup → Workflow Rules → New Rule.
- **Define Rule Criteria:**
    - Select the object and specify criteria for when the workflow should be triggered.
    - Define actions such as email notifications, field updates, or task creation.
- **Activate the Workflow Rule:**
    - Click "Save" and then "Activate" to enable the rule.

Steps to Use Process Builder:

- **Navigate to Process Builder:**
    - Go to Setup → Process Builder → New Process.

- **Define the Process:**
    - Use the visual interface to set up process criteria and actions.
    - Save and activate the process.

10. Customise Page Layouts

Page layouts control how fields and related information are presented on record pages.

Steps to Customise Page Layouts:

- **Navigate to Page Layouts:**
    - Go to Setup → Object Manager → Select the Object (e.g., Appointment) → Page Layouts.
- **Edit the Layout:**
    - Arrange fields and sections by dragging and dropping them.
    - Configure visibility settings and adjust field placements.
    - Click "Save" to apply your layout changes.

11. Create and Configure Email Template

Email templates standardise communication for notifications and updates.

Steps to Create Email Templates:

- Navigate to Email Templates:
    - Go to Setup → Email → Classic Email Templates.
- Create a Template:
    - Select "New Template," choose the type (e.g., HTML), and enter the template details.
    - Add merge fields to personalise the emails.
    - Save the template and test it by sending a sample email.

12. Ensure Security and Access Control

Managing user access is essential for safeguarding sensitive data and ensuring appropriate permissions.

Steps to Configure Security and Access Control:

- **Navigate to Profiles:**
  - Go to Setup → Profiles.
  - Edit profiles to adjust permissions for objects and fields.
- **Use Permission Sets:**
  - Go to Setup → Permission Sets.
  - Click "New Permission Set" to create a new set of permissions.
  - Define the necessary permissions (e.g., object access, field-level security).
  - Assign the permission set to users or groups as needed.
  - Click "Save" to apply the permissions.
- **Set Up Role Hierarchy:**
  - Go to Setup → Roles → Role Hierarchy.
  - Define roles that represent your organisation’s structure.
  - Configure roles to manage access and data visibility based on user roles.
  - Assign users to the appropriate roles to control their access levels.

13. Develop Custom Lightning Components (Optional)

Custom Lightning Components can enhance the user interface and add specialized functionalities.

Steps to Develop Custom Lightning Components:

- **Set Up Salesforce DX:**
  - Install Salesforce CLI and configure Salesforce DX for development.

    - Create a new project using the Salesforce CLI.
- **Create a Lightning Component:**
    - Within your Salesforce DX project, use the command `sfdx force:lightning:component:create` to generate a new component.
    - Define the component's functionality using HTML, JavaScript, and Apex (if necessary).
- **Deploy and Test:**
    - Deploy the component to your Salesforce environment using the Salesforce CLI.
    - Test the component in your Salesforce org to verify that it meets the requirements.

14. Testing and Deployment

Before going live, thoroughly test your system and deploy it to the production environment.

Steps for Testing:

- **Unit Testing:**
    - Test individual components, objects, and fields to ensure they function as expected.
    - Utilise Salesforce's built-in testing tools or create test cases to validate each component.
- **User Acceptance Testing (UAT):**
    - Have end-users test the system in a sandbox environment.
    - Gather feedback and make necessary adjustments based on user experiences.
- **System Testing:**
    - Test the entire system, including integrations, automation, and user interfaces.
    - Ensure that all components work together seamlessly.

Steps for Deployment:

- **Prepare for Deployment:**
    - Review deployment plans and ensure all components are ready for production.
    - Use change sets or Salesforce DX for the deployment process.
- **Deploy to Production:**
    - Deploy the system using change sets or Salesforce CLI.
    - Monitor the deployment and address any issues that arise.
- **Post-Deployment:**
    - Confirm that the system is functioning correctly in the production environment.
    - Provide training and support to users as needed.

15. Continuous Improvement and Maintenance

After deployment, ongoing maintenance and enhancements are crucial for maintaining system effectiveness.

Steps for Continuous Improvement:

- **Monitor System Performance:**
    - Regularly review system performance and user feedback.
    - Address performance issues and bugs as they arise.
- **Update and Enhance Features:**
    - Periodically assess and update features to align with changing business needs.
    - Implement new functionalities and improvements as necessary.
- **Provide User Support:**
    - Offer training and support to ensure users can utilise the system effectively.
    - Maintain a knowledge base or help resources for user assistance.
- **Review Security:**
    - Regularly review and update security settings and access controls.

    - Ensure compliance with data protection regulations and organisational policies.

This document outlines a comprehensive approach to developing a Garage Management System in Salesforce. By following these steps, you can effectively manage garage operations, enhance efficiency, and improve customer satisfaction.

Conclusion:

The Garage Management System project has demonstrated the effectiveness of Salesforce in optimising business processes and enhancing customer satisfaction. We successfully implemented a tailored Salesforce solution for managing:

- Customer information and appointments
- Service records and billing details
- Feedback and ratings

By leveraging Salesforce's features, such as custom objects, fields, and validation rules, we created a streamlined system for garage owners. This project has refined our Salesforce skills and highlighted our ability to address real-world business challenges through automation, data analysis, and relationship management.

We believe the Garage Management System will be a valuable tool for garage owners, helping them improve customer experiences and drive business growth. Thanks to our instructors, mentors, and team members for their support throughout this project.