■ Project Title

EV Charging Station CRM on Salesforce

■ Problem Statement

As the adoption of Electric Vehicles (EVs) increases, the lack of an integrated platform for managing charging stations creates challenges for both operators and users. Issues include:

- No real-time visibility of slot availability
- Long waiting times and poor scheduling
- Inefficient billing and payment tracking
- No centralized record of maintenance and breakdowns

This project proposes a Salesforce-based CRM solution to centralize EV charging station management, streamline operations, and provide an improved customer experience.

■ Objectives

1. Manage Charging Slots – Real-time tracking of available, booked, and occupied slots.

2. Customer Management – Store EV user details, vehicle info, and booking history.

3. Booking & Scheduling – Enable customers to book slots in advance via a Salesforce Experience Cloud portal or mobile app.

4. Payment & Billing – Automate invoices, track payments, and manage subscriptions using Salesforce Billing.

5. Maintenance Management – Track station maintenance, breakdown reports, and technician assignments as Salesforce Cases.

6. Analytics & Reports – Dashboard for station performance, revenue, and energy usage with Salesforce Reports & Dashboards.

7. Notifications – Send SMS/email reminders using Salesforce Marketing Cloud or flows.

■ Salesforce Implementation Plan

Feature	Salesforce Component
Charging Station Info	Custom Object: Charging_Station__c
Charging Slots	Custom Object: Charging_Slot__c (related to Station)
Customers & Vehicles	Standard Contact object + custom Vehicle__c
Bookings	Custom Object: Booking__c (lookup to Customer & Slot)
Payments	Salesforce Billing / Custom Payment Object
Maintenance Requests	Standard Case object customized
Notifications	Salesforce Flow + Email/SMS integration (Twilio or Salesforce Digital Engage
Reports & Dashboards	Salesforce Reports + Dashboard Builder
Portal for Users	Experience Cloud Site (community portal)

■ Tech Stack (inside Salesforce)

- Salesforce Core CRM (custom objects, fields, relationships)
- Salesforce Flow (automation: auto-booking, reminders)
- Salesforce Reports & Dashboards (analytics)
- Experience Cloud (customer portal)
- Salesforce Billing (for invoicing and payments)

Optional Integrations:
- Payment Gateway (Stripe/UPI integration via Apex)
- IoT Device API (for real-time slot status updates)

■ Expected Outcomes

• Operators can track and manage all charging stations from one dashboard.

• EV users can book slots, make payments, and view their history easily.

• Real-time analytics help optimize station operations and reduce downtime.

• Automated alerts reduce human intervention and errors.