Phase 1: Problem Understanding & Industry Analysis

Define the Business Problem

The primary challenge is managing the growing network of Electric Vehicle (EV) charging stations efficiently. This includes:

- **Station Management:** Tracking location, status (operational, maintenance), and technical specifications of charging stations.
- **Slot Availability:** Real-time monitoring and display of individual charging slot availability within each station.
- **Bookings:** Allowing customers to find available slots, reserve charging times, and manage their bookings.
- **Payments:** Securely processing payments for charging sessions based on duration or energy consumed.
- **User Management:** Handling different user types (Customers, Station Managers, Admins) and their specific needs.
- **Reporting:** Generating insights on station utilization, revenue, and customer behavior.

Identify Stakeholders

- **Admin:** Oversees the entire system, manages users, configurations, and overall platform health. Needs full access and reporting capabilities.
- **Customer:** The end-user who searches for stations, books slots, manages their vehicle information, makes payments, and potentially provides feedback. Needs a simple, intuitive interface.
- **Station Manager:** Responsible for one or more charging stations. Needs to monitor slot status, view bookings for their station(s), manage local issues, and potentially oversee maintenance schedules.
- **Technician:** Handles maintenance and repairs. Needs access to station/slot technical details and maintenance schedules/cases.

Map the Business Process Flow

1. **Customer Search/Discovery:** Customer uses an app/website to find nearby stations and check slot availability.
2. **Booking:** Customer selects a station, slot, and time, then confirms the booking.
3. **Slot Allocation:** The system marks the chosen slot as 'Reserved' or 'Occupied' for the booked time.
4. **Charging Session:** Customer arrives, authenticates (if needed), and starts the charging session. System monitors duration/energy.
5. **Session End & Payment Calculation:** Charging stops. System calculates the cost based on predefined rates.
6. **Payment Processing:** Customer pays via integrated payment gateway (or pre-paid balance). System records the transaction.
7. **Slot Update:** System marks the slot as 'Available' again.
8. **(Optional) Feedback:** Customer provides a rating or feedback on the experience.

Industry Analysis

- **EV Charging Ecosystem:** The market is rapidly expanding with government incentives and growing EV adoption. Key players include hardware manufacturers, network operators (like ours), EV manufacturers, and utility companies. Interoperability and standardization (e.g., charging connectors, payment protocols) are major trends.
- **Competitors (India Example):**
    - **Tata Power EZ Charge:** Large network, focuses on public charging infrastructure across various location types. Often partners with businesses and municipalities. Offers app-based booking and payment.

    - **ChargeGrid (Magenta):** Provides charging solutions for residential, public, and fleet segments. Focuses on technology and integrated hardware/software solutions.
    - **Ather Grid:** Primarily supports Ather electric scooters but is expanding. Known for its fast-charging network and user-friendly app.
    - **Statiq:** A growing network aggregator providing access to multiple charging providers through one app.
- **Key Differentiators:** Potential areas for our CRM to add value include superior reliability tracking, dynamic pricing models, seamless booking experience, integrations with fleet management, and advanced analytics for station owners.

AppExchange References

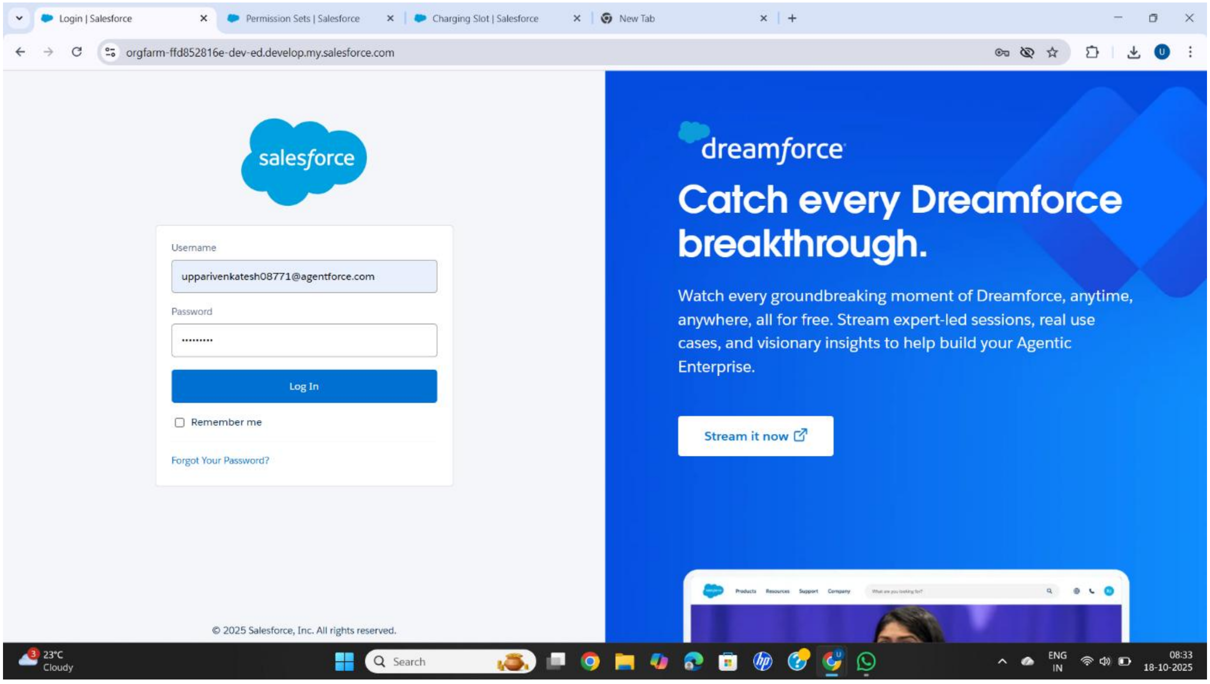
While dedicated EV Charging CRMs might be niche, functionalities can be drawn from related AppExchange apps:

- **Field Service Management Apps:** (e.g., Salesforce Field Service, ServiceMax) - Useful for managing technician dispatch, maintenance schedules, and asset tracking (stations/slots).
- **Booking/Scheduling Apps:** (e.g., Appointment Scheduler tools) - Provide inspiration for calendar views, resource allocation, and booking confirmations.
- **Subscription Billing/Payment Apps:** (e.g., Chargebee, Zuora, Stripe Connector) - Offer robust solutions for managing recurring payments, different pricing models, and payment gateway integration.

Phase 2: Org Setup & Configuration

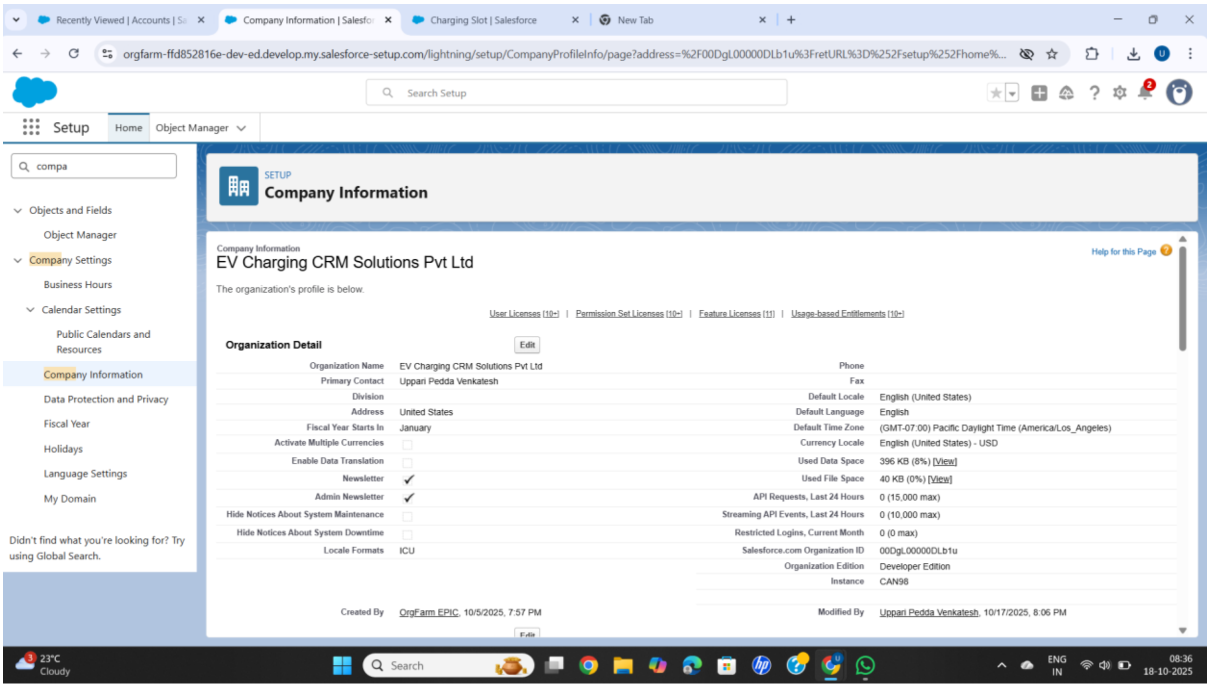
Document Your Salesforce Org Setup

- **Edition Used:** Developer Edition

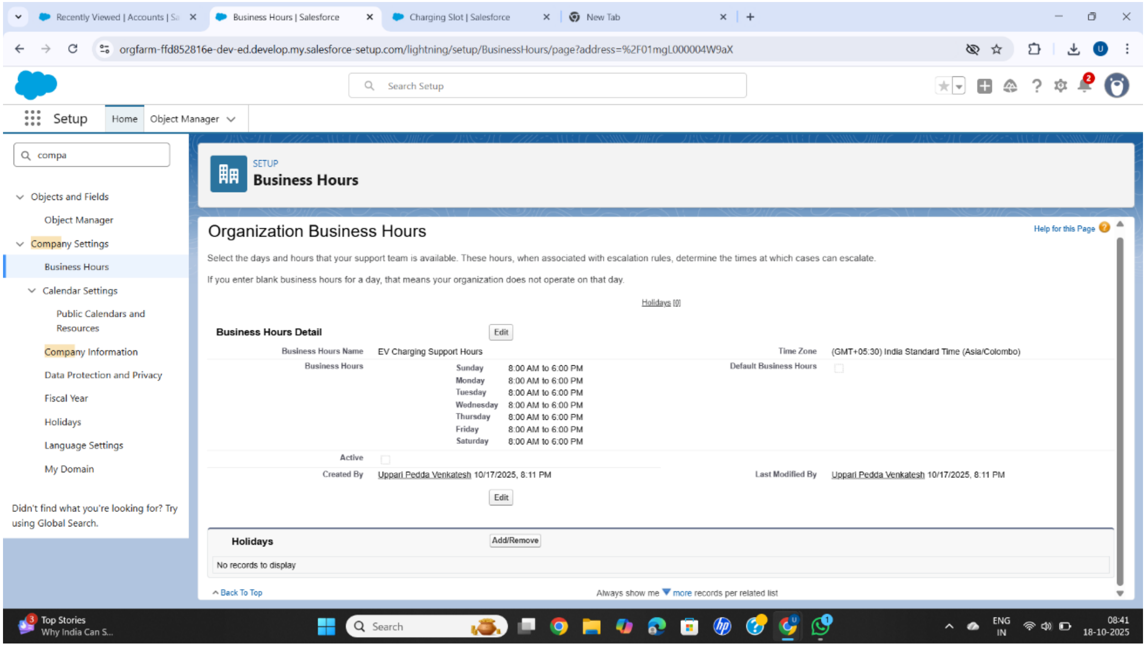


Company Profile & Business Hours

- **Company Information:** Basic company details (Name, Address, Primary Contact) configured. Time zone set appropriately for operations



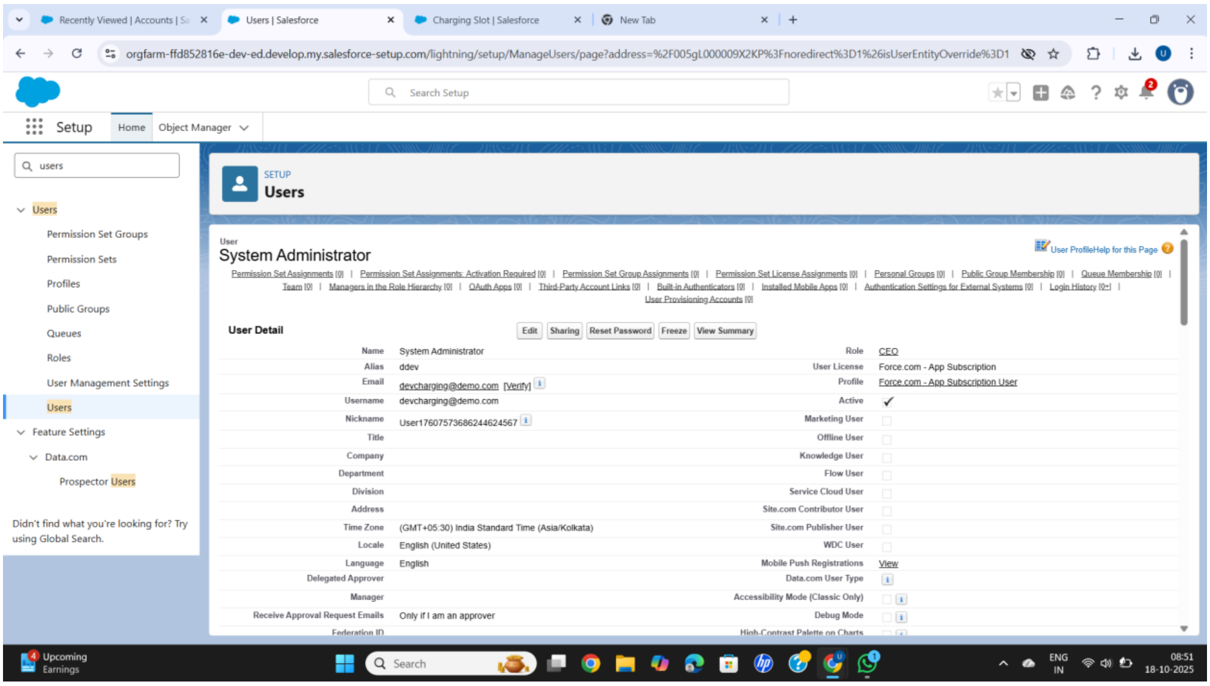
- **Business Hours:** Default business hours set (e.g., 9:00 AM to 6:00 PM, Monday-Friday, IST) for support/case management purposes. Specific station operating hours might be managed differently.



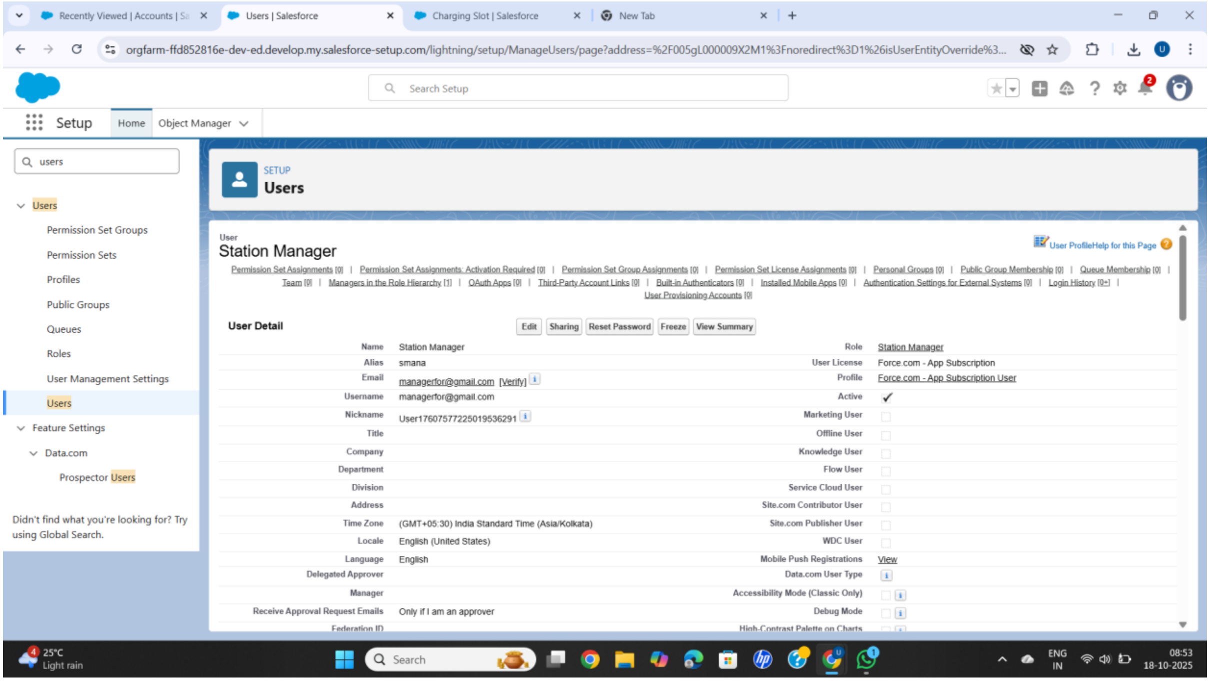
User Creation :

Standard users created to represent key stakeholder roles:

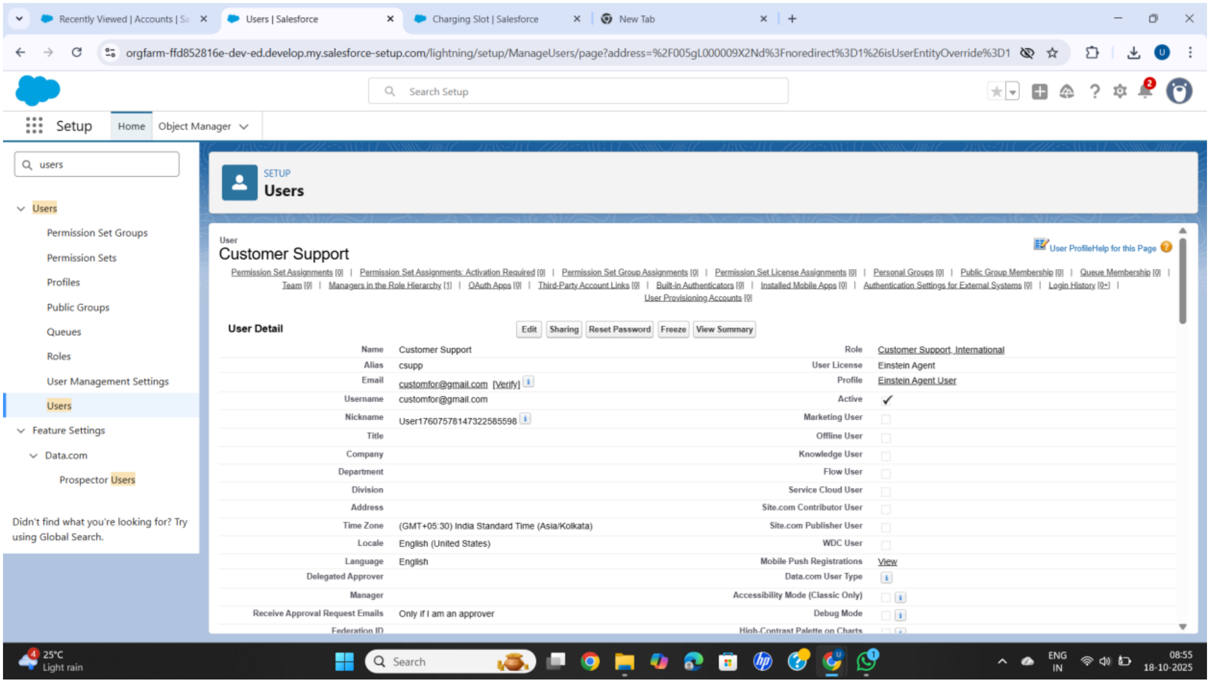
- **System Administrator:** Full access user for configuration and development.



- **Station Manager:** Represents a Station Manager or Operations Manager profile

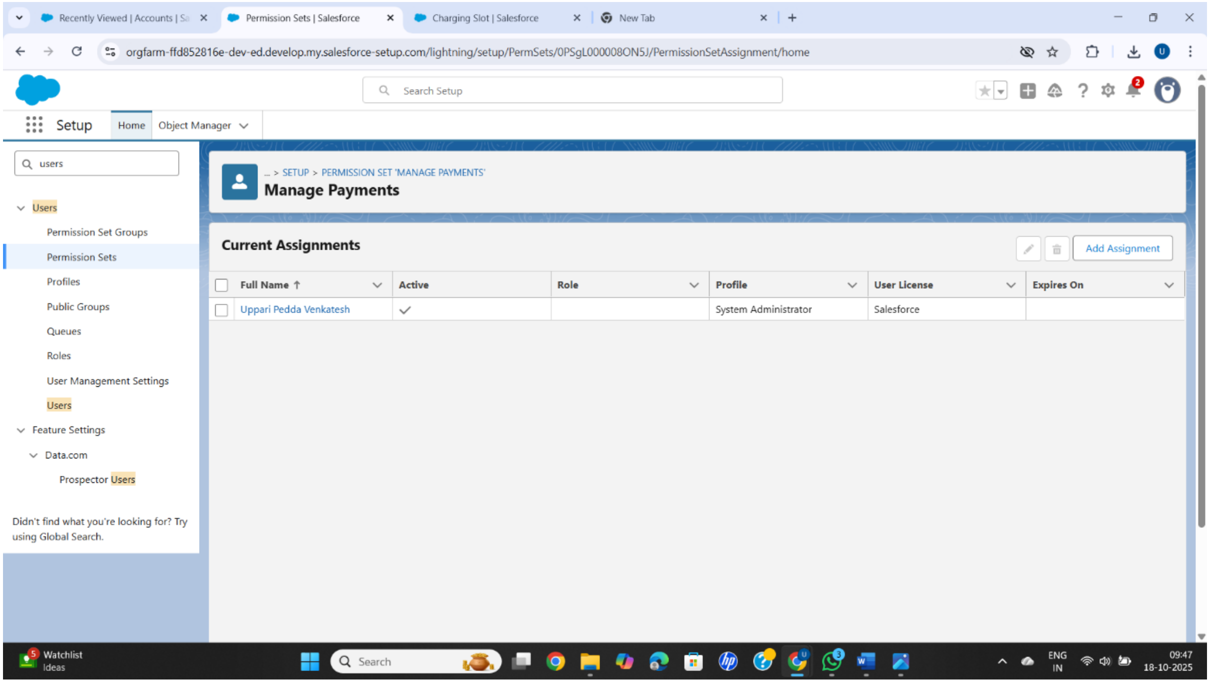


- **Customer Support :** Represents a standard user profile focused on Case management and potentially basic Booking assistance



Permission Sets:

Created Permission Sets for additional access:



Roles:

- Defined Role Hierarchy:
  - CEO
  - Operation Manager
  - Station Manager
  - Station Staff