Green Energy Usage Record Phase -3

Phase 3: Data Modeling & Relationships

Goal: Build the data model to support energy monitoring, devices, and personnel-role tracking in Salesforce.

1. Standard & Custom Objects

- Standard Objects:
    - *Contact* (used to represent Customers)
    - *Case* (used to manage service issues)
- Custom Objects:
    - *Energy Device* (represents devices like solar panels, wind turbines)
    - *Energy Usage Record* (tracks energy data over time)
    - *Personnel* (tracks roles including Technician, Solar Agent, Team Lead, etc.)

2. Fields

- Energy Device:
    - Device ID
    - Device Type
    - Installation Date
    - Status
    - Location
- Energy Usage Record:
    - Record Date
    - Energy Generated (kWh)
    - Energy Consumed (kWh)
    - Net Energy (calculated field)
    - Device Lookup (relationship to Energy Device)
- Personnel:
    - Role
    - Employee ID
    - Assigned Devices (lookup/junction)
    - Contact Lookup (relationship to Contact)

4. Page Layouts

- Energy Device Layout:
    - Shows device details, related usage records, and related personnel assigned to device.
- Energy Usage Record Layout:
    - Displays energy analytics fields and shows the related energy device details.
- Personnel Layout:
    - Shows assigned devices, cases handled, and contact information.

5. Compact Layouts

- Energy Device (Mobile View):
    - Device ID, Device Type, Status
- Energy Usage Record (Mobile View):
    - Record Date, Energy Generated, Net Energy

6. Schema Builder

- Used to visually map and verify relationships for better understanding of data flow between:
    - Energy Device → Energy Usage Record → Personnel → Customer (Contact)

7.Relationships

- Energy Device → Energy Usage Record: Master-Detail relationship with Energy Device as the parent owning usage records.
- Energy Usage Record → Customer (Contact): Lookup relationship tying usage logs to customer accounts without ownership dependencies.
- Personnel → Energy Device: Lookup relationship linking technicians to devices they maintain or operate.
- Personnel → Personnel (Supervisor/Team Lead): Self-lookup relationship enabling hierarchical supervision within personnel records.

8. Junction Objects

- Created a Device Assignment junction object to handle many-to-many relationships where:
    - One technician can manage multiple devices.
    - One device can be maintained by multiple technicians.
- Fields include Technician Lookup, Device Lookup, and Assignment Date

In conclusion, choosing the right Salesforce user license depends on the role's access needs:

- The Salesforce license is ideal for managers who require full CRM access and capability to use standard and custom Salesforce apps.
- The Salesforce Platform license fits users needing access mainly to custom apps without full CRM functionalities.
- Specialized licenses like Work.com Only or Partner App Subscription provide limited access for specific purposes and are not suitable for managerial roles requiring broad CRM access.

Thus, for managers—even at the highest position—the Salesforce license is typically the best choice to ensure full operational access aligned with their responsibilities.

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