**Phase 1: Problem Understanding & Industry Analysis**

**Problem Statement:**

Hospitals and clinics often manage appointments manually, which leads to double bookings, missed appointments, and lack of proper tracking for doctors. Patients are not notified properly, and admins cannot generate clear reports on hospital operations.

**Proposed Solution:**

A Salesforce-based Appointment Booking System that allows patients to book appointments online, auto-assigns doctors based on specialization and availability, enforces daily limits per doctor, sends confirmation/rejection emails, reminds patients a day before, and provides dashboards for admins.

**Stakeholders:**

* Patients → Book appointments.
* Doctors → View and manage their appointments.
* Admin/Clinic Manager → Oversee all appointments, generate reports, and manage hospital resources.

**Use Cases:**

1. Patient books appointment (system assigns doctor automatically).
2. Reject appointment if no doctor is available or daily limit is reached.
3. Send confirmation/rejection emails to patients.
4. Send reminder emails to patients one day before appointment.
5. Doctors update status after completion.
6. Admin views dashboards (daily appointments, doctor workload, trends).

**Industry-Specific Use Case Analysis:**

The healthcare sector requires efficient appointment management to avoid long waiting times, double bookings, and poor communication between patients and hospitals. A digital system reduces administrative overhead and improves patient experience.

**AppExchange Exploration:**

Salesforce AppExchange offers healthcare-related applications such as *Salesforce Health Cloud* and *Appointment Scheduler*. These apps provide advanced scheduling, patient record management, and telehealth features. For this project, a simplified custom solution is built to demonstrate Salesforce concepts (Admin + Developer) while addressing core appointment booking challenges.

**Entity Relationship Diagram (ERD):**

