Problem Domain:

The SHMS efficiently coordinates the logistics of healthcare management. It integrates patient care, staff scheduling, equipment tracking, and financial processes, providing an all-encompassing solution for healthcare facility management.

Database Rules:

1. Each entity (Patient, Doctor, etc.) is assigned a unique identifier.
2. Patients can have multiple appointments, with each appointment associated with one patient, one doctor, and possibly one piece of medical equipment.
3. Treatment plans are personalized for patients and are overseen by doctors.
4. Medical equipment is tracked and allocated per department.
5. Billing information is connected to each patient and reflects their treatment and equipment usage.
6. Administrative staff manage and facilitate various non-medical patient-related activities.
7. Departments serve as organizational units within the healthcare facility.

Identified Nouns (Potential Entities):

1. Patient
2. Doctor
3. Appointment
4. Treatment Plan
5. Medical Equipment
6. Department
7. Admin Staff
8. Billing Information

Identified Actions (Operations):

1. Schedule Appointment
2. Reschedule Appointment
3. Cancel Appointment
4. Update Treatment Plan
5. Record Treatment
6. Allocate Medical Equipment
7. Update Medical Equipment Status
8. Manage Billing Information
9. Update Patient Records
10. Manage Department Information
11. Assign Admin Staff Duties