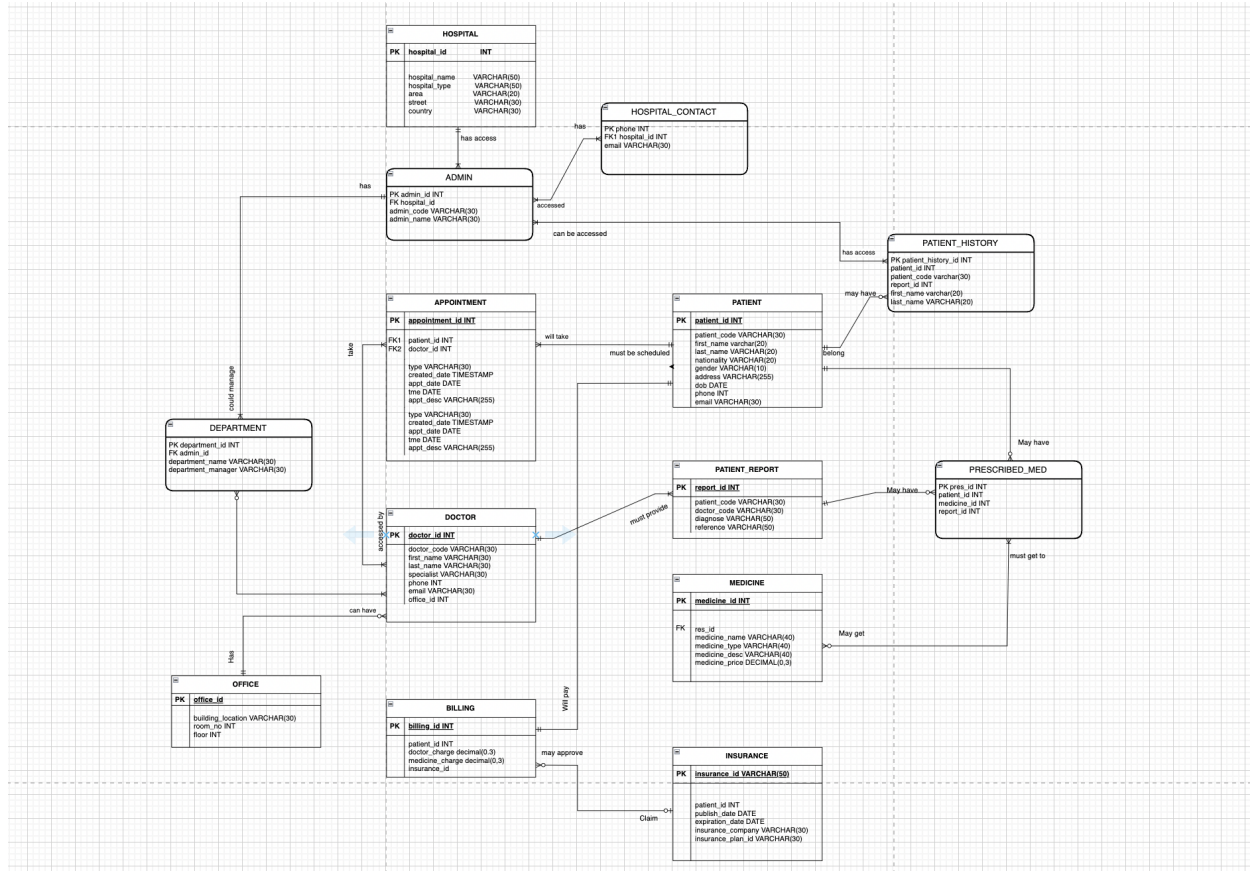# Hospital Patient Management

1) ERD

2) Business Problems being Addressed

- Seamless booking of appointments of different doctors for different problems.
- Accountability of billing of patients. Making it simple for them to choose a plan from.

- Direct communication with the insurance companies using the Patient ID to make sure their insurance claims are made easy.
- Maintaining and modifying the patient records in for keeping track of all the patient diseases.
- Keeping track of locations of the rooms with respect to doctors which are present in the rooms.
- Contact details of all the hospitals are maintained for easy access to the patients.
- Different departments are maintained for assigning doctors to patients with different diseases.
- Doctors can directly upload the report and the prescriptions to the database which can help maintain patients' data.
- All the prescribed medicines are maintained using a relational database with the patient for making it easy for the chemists.

3) Entities and their relationships

- The HOSPITAL must have multiple ADMINS. Each ADMIN must have access to a HOSPITAL.
- The DEPARTMENT must be managed by an ADMIN. Each ADMIN must manage multiple DEPARTMENTs
- Each DEPARTMENT must have multiple DOCTORS. Each DOCTOR may belong to multiple DEPARTMENTS
- Each DOCTOR must have multiple APPOINTMENTS. Each APPOINTMENT must have one DOCTOR
- Each PATIENT may have multiple APPOINTMENTS. Each APPOINTMENT must have one PATIENT
- Each PATIENT may pay multiple BILLING. Each BILLING must be paid by one PATIENT
- Each BILLING may have an INSURANCE associated with it. Each INSURANCE must have multiple BILLINGS attached to it.
- Each OFFICE may have multiple DOCTORS. Each DOCTOR must have one OFFICE.

- Each DOCTOR must provide multiple PATIENT REPORT. Each PATIENT REPORT is provided by only one DOCTOR
- EACH PATIENT REPORT may have multiple PRESCRIBED MED. Each PRESCRIBED MED must have one PATIENT REPORT
- Each PRESCRIBED MED may get multiple MEDICINE. Each MEDICINE must get multiple PRESCRIBED MED
- Each PATIENT may have multiple PATIENT HISTORY. Each PATIENT HISTORY must belong to a PATIENT
- Each ADMIN must have access to multiple PATIENT HISTORY. Each PATIENT HISTORY must be accessed by multiple ADMIN
- Each ADMIN has access to multiple HOSPITAL CONTACT. Each HOSPITAL CONTACT must be accessed by multiple ADMIN