DBMS Assignment - 1

CS18B004, CS18B005, CS18B010, CS18B029, CS18B057

Domain Description

The domain we choose is a hospital management system. We are building a database to get to know the details regarding the working of the hospital.

Description in plain english:

Each patient is assigned to a Doctor and a Nurse during every visit (maybe assigned to multiple doctors and nurses over the course of time). A Doctor might be assigned to multiple patients, and a Nurse also might be assigned to multiple patients.

A patient is uniquely identified by Patient ID. We store the patient's name, age, sex, weight and contact no. A doctor is uniquely identified by employee ID. We store the doctor's name, age, contact no, email id, degree and experience. A nurse is uniquely identified by employee ID. We store the nurse's name, age and contact no.

Upon every visit to the hospital, the patient is given a prescription. Each Prescription contains a Bill which has the list of Medicines and Treatments offered to the patient on it. A medicine and a treatment can be present in multiple bills.

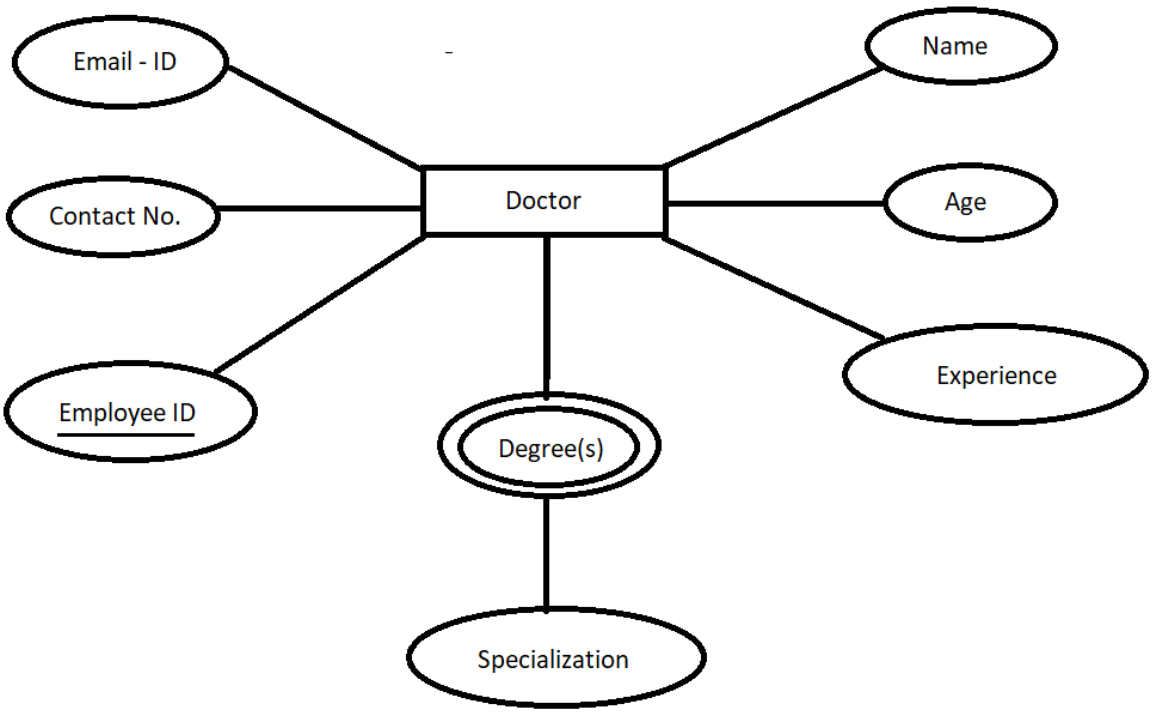
A prescription is uniquely identified by prescription ID. We store the prescription's patient name, doctor name, hospital name and date. A medicine is uniquely identified by its name. We store the medicine's manufacturer, batch no, expiry date and price. A treatment is uniquely identified by its treatment name. We store the treatment's specialisation. A bill is identified by its bill ID. We store the bill's date and price.

Each patient goes to a receptionist on every visit. A receptionist might receive multiple patients. After every visit to the receptionist, a medical record is created which archives the remarks by the doctor on this particular visit.

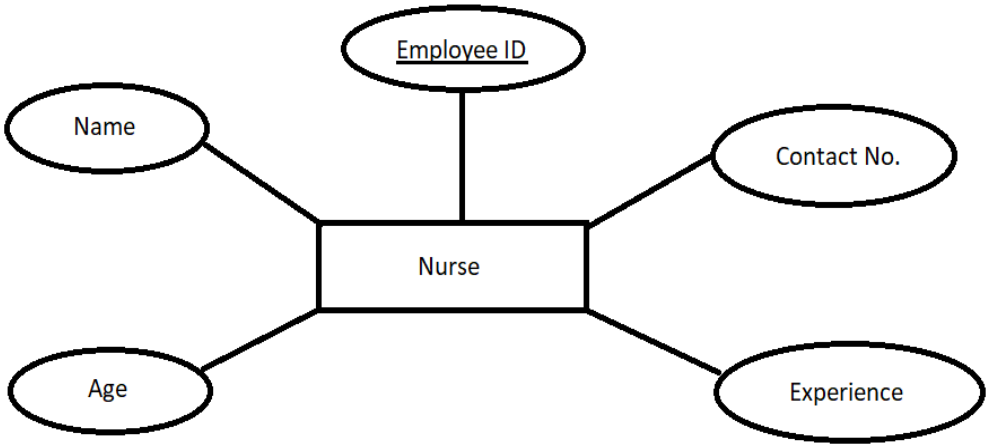
A receptionist is uniquely identified by its receptionist employee ID. We also store the receptionist name and landline number. A medical record is uniquely identified by a record number. We also store the medical record's patient ID and date.

Entities associated with the model:

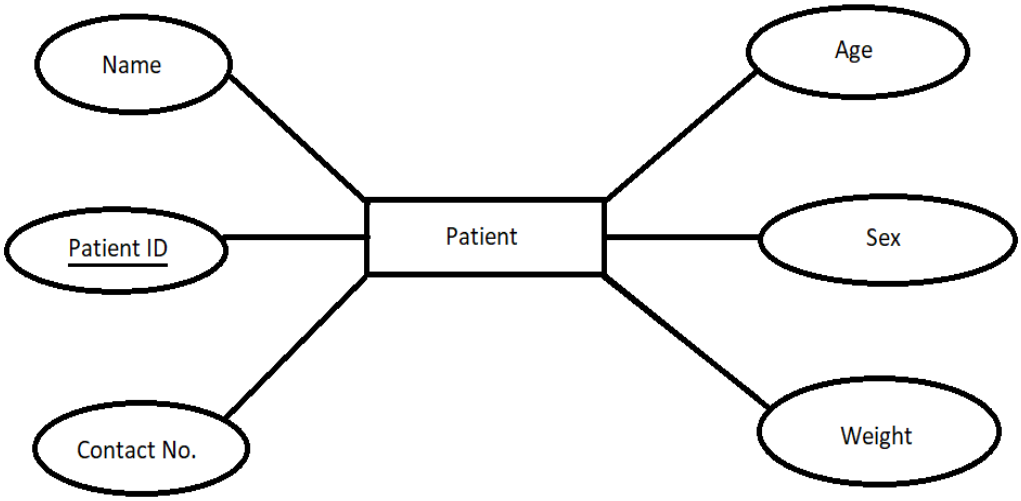
Doctor Entity



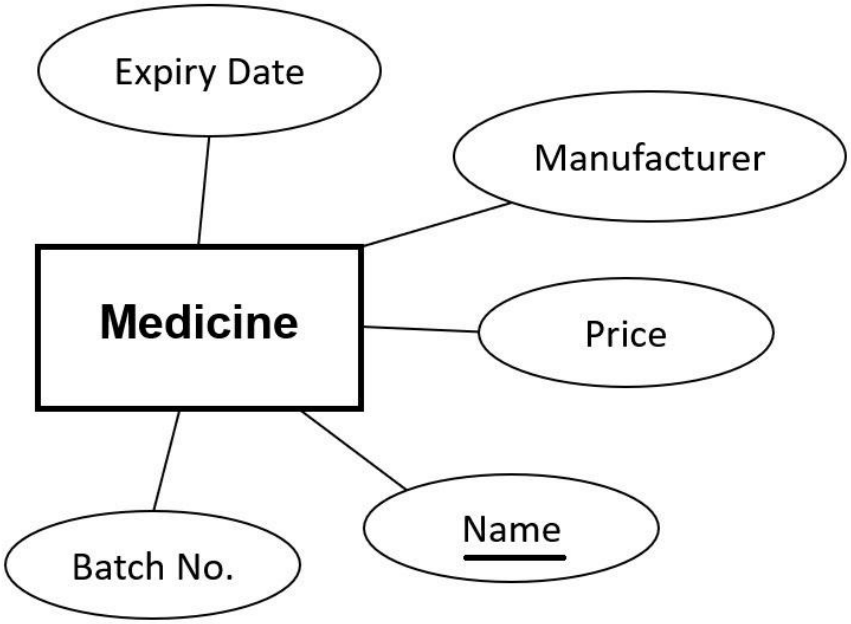
Nurse Entity



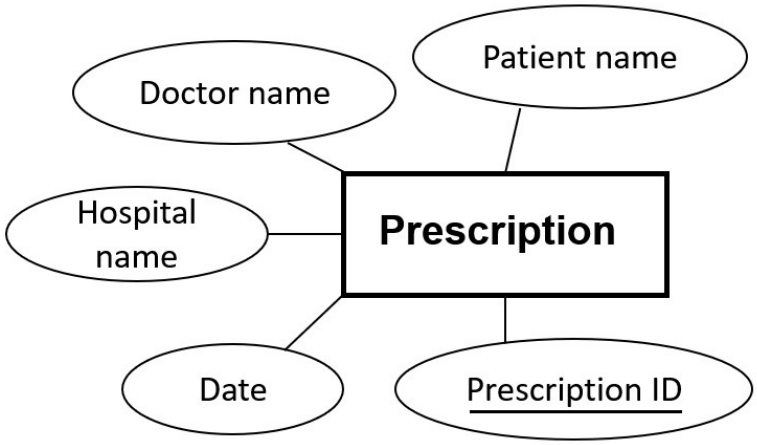
Patient Entity



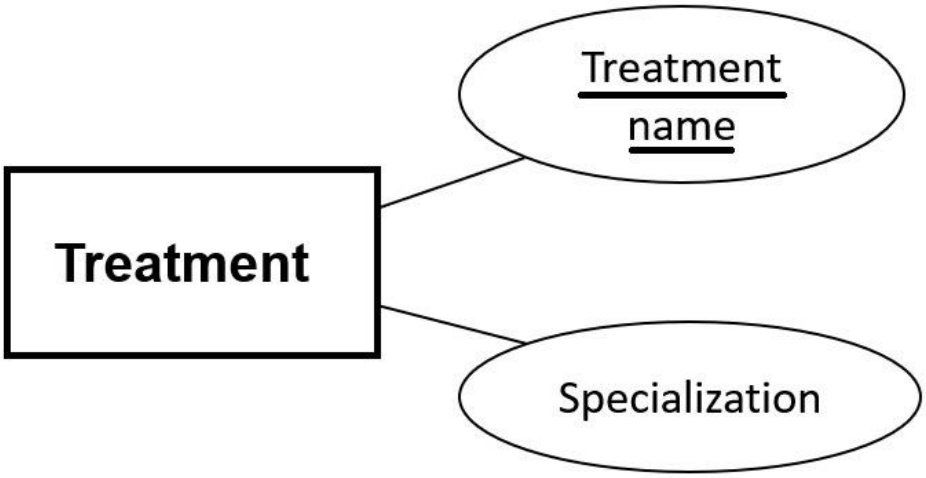
Medicine Entity



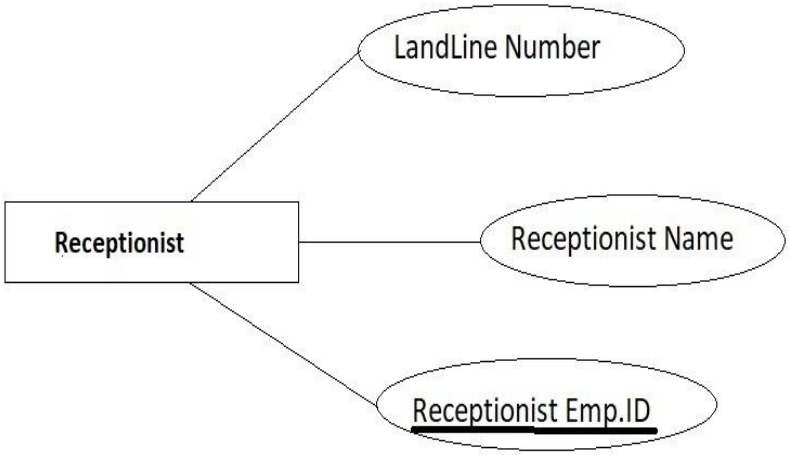
Prescription Entity



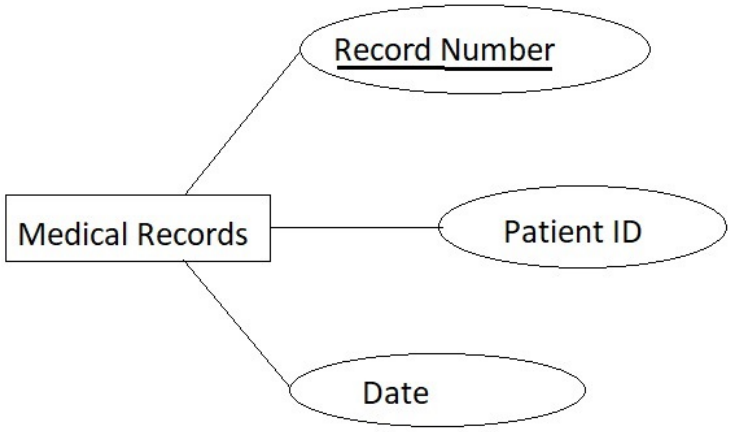
Treatment Entity



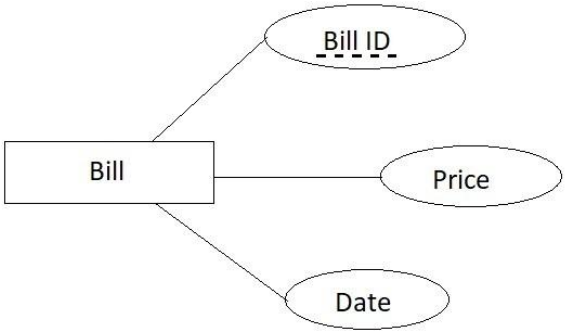
Receptionist Entity



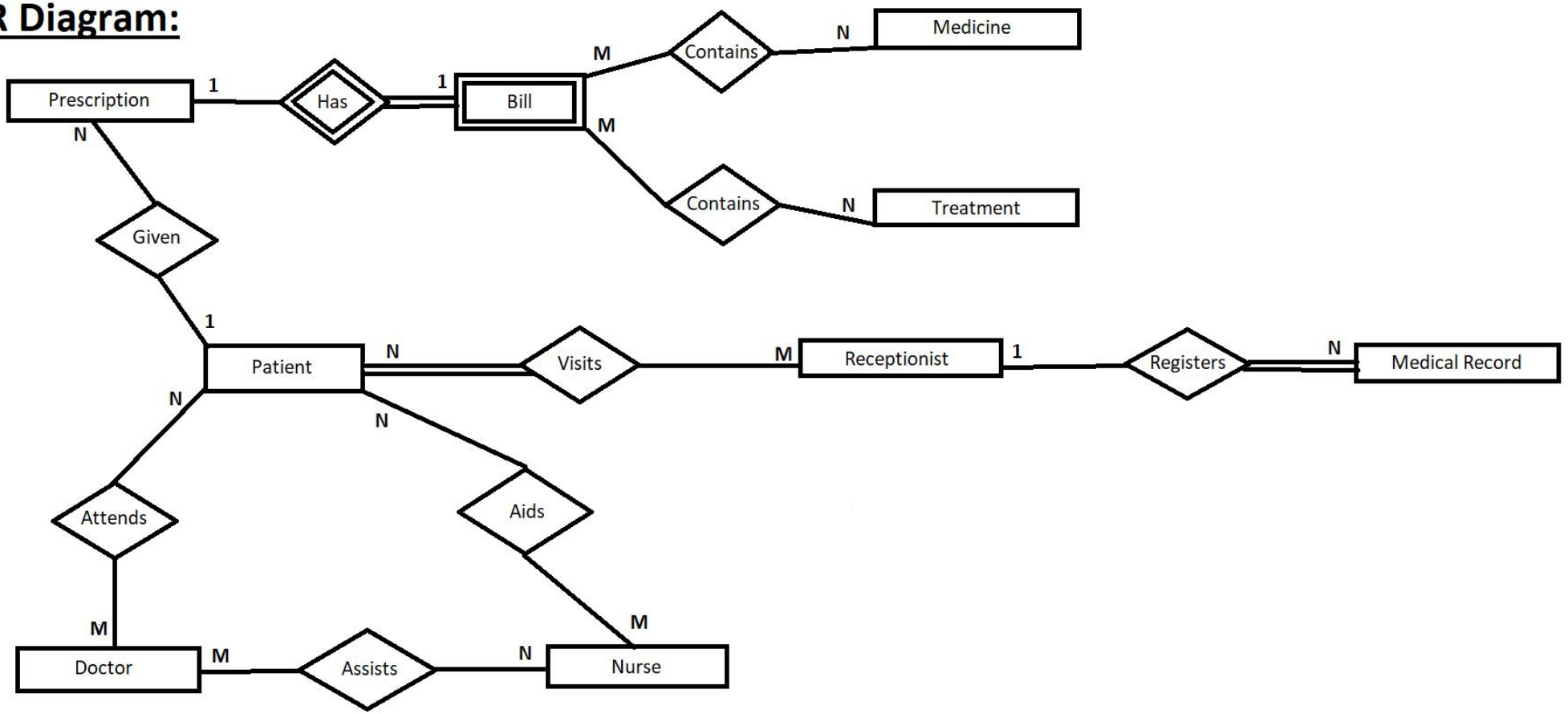
Medical Record Entity

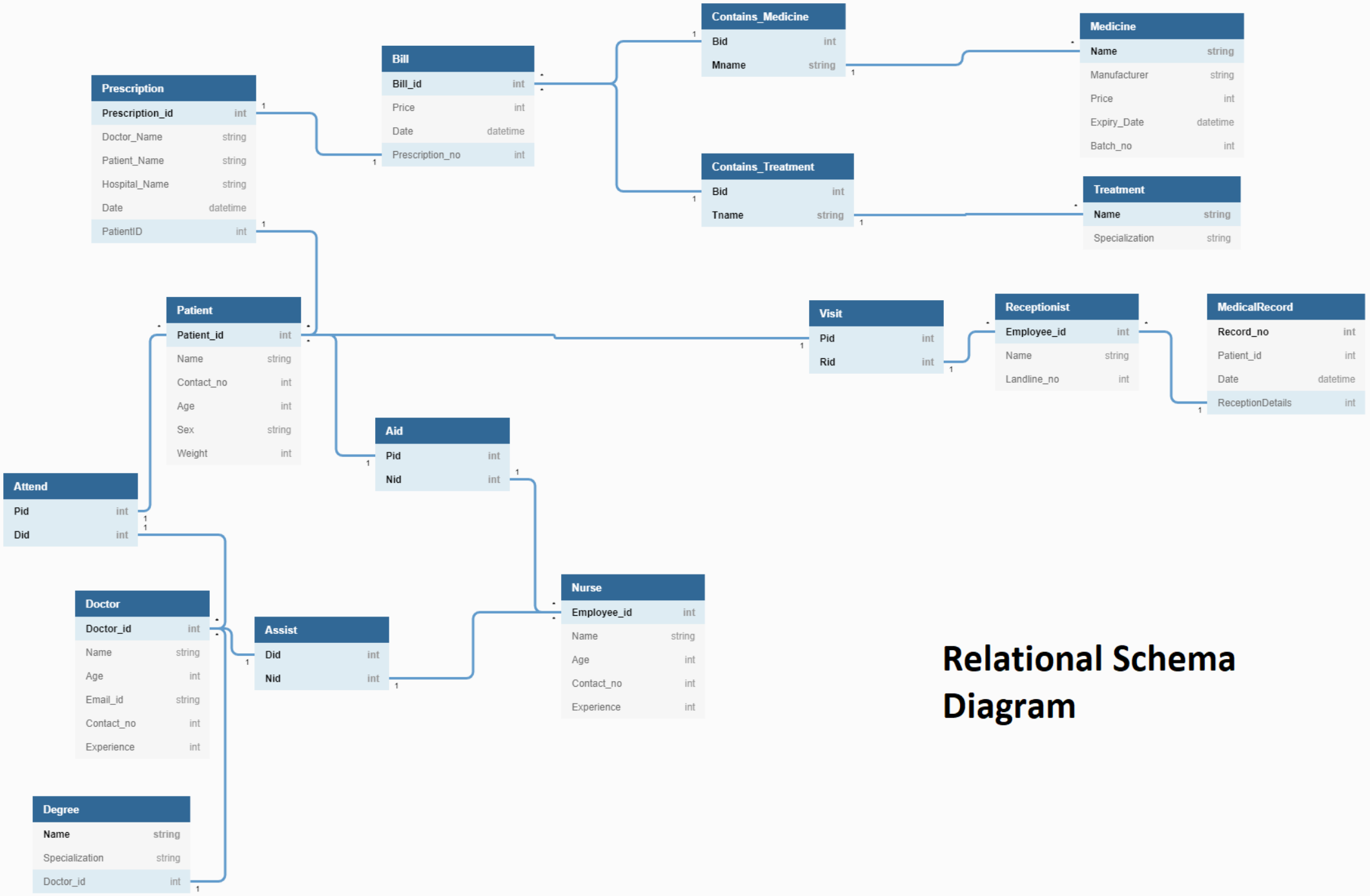


Bill Entity



ER Diagram:


Prescription
1
Has
1
Bill
M
Contains
N
Medicine
M
Contains
N
Treatment
N
Given
1
Patient
N
Visits
M
Receptionist
1
Registers
N
Medical Record
N
N
Attends
Aids
M
M
Doctor
M
Assists
N
Nurse



Relational Schema Diagram