Clinic Database Management System

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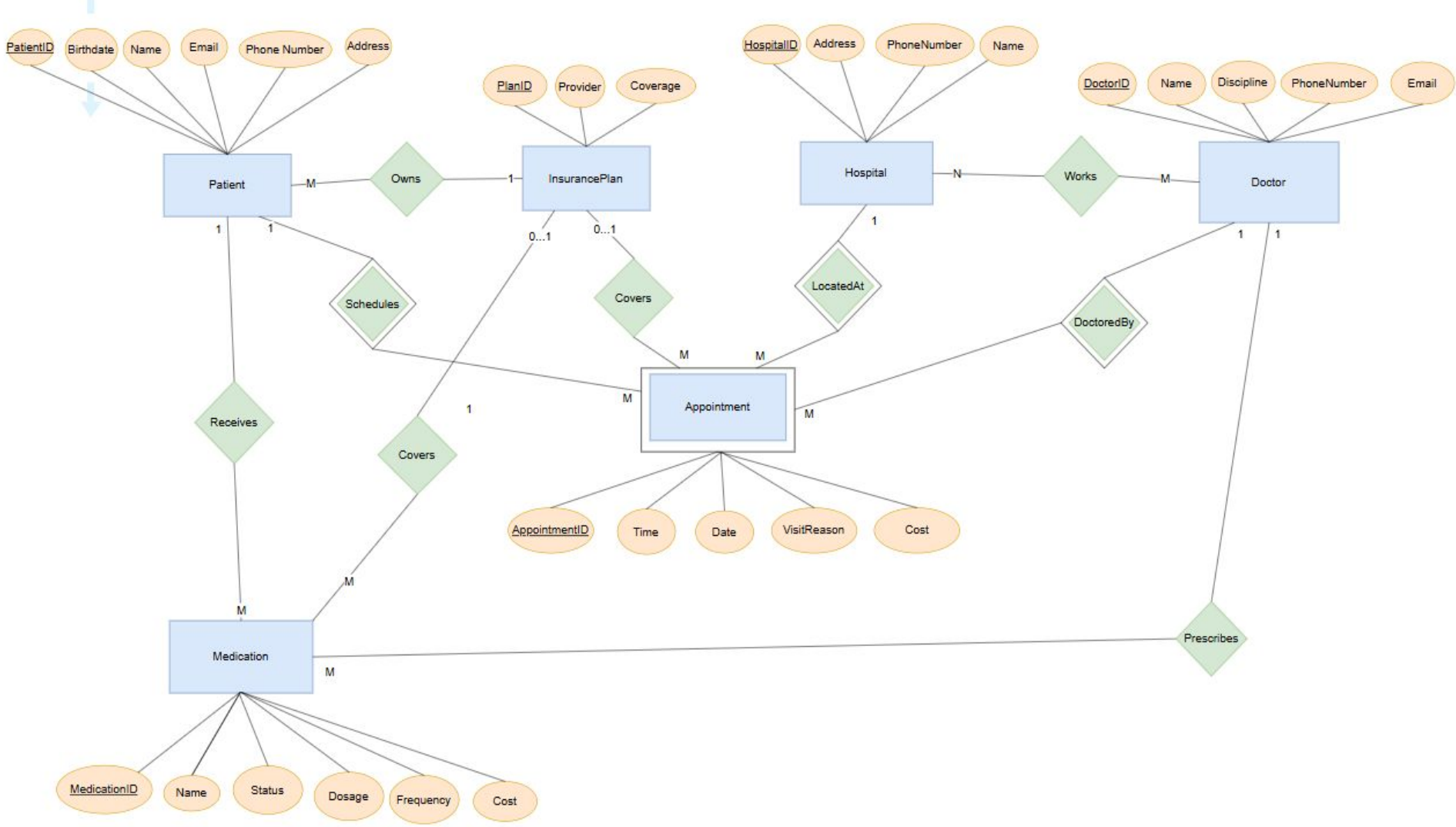
PatientID
Birthdate
Name
Email
Phone Number
Address
Patient
M
Owns
1
InsurancePlan
PlanID
Provider
Coverage
HospitalID
Address
PhoneNumber
Name
Hospital
N
Works
M
Doctor
DoctorID
Name
Discipline
PhoneNumber
Email
1
1
Schedules
0...1
0...1
Covers
1
LocatedAt
1
1
DoctoredBy
M
M
M
Appointment
M
Receives
1
Covers
AppointmentID
Time
Date
VisitReason
Cost
M
M
Medication
M
Prescribes
MedicationID
Name
Status
Dosage
Frequency
Cost

Schema

Patients

- PatientID
- Name
- BirthDate
- PhoneNumber
- Address
- Email

InsurancePlan

- PlanID
- Provider
- Coverage

Doctor

- DoctorID
- Name
- PhoneNumber
- Email
- Discipline

Medication

- MedicationID
- Name
- Status
- Dosage
- Frequency
- Cost

HospitalLocation

- HopitalID
- Address
- Name
- PhoneNumber

Appointment

- AppointmentID
- Date
- Time
- VisitReason
- Cost

Patients (PatientID, Name, Birthdate, PhoneNumber, Address, Email)

Doctor (DoctorID, Name, PhoneNumber, Email, Discipline)

Hospital (HospitalID, Address, Name, PhoneNumber)

InsurancePlan (PlanID, Coverage, Provider)

Medication (MedicationID, Name, Status, Dosage, Frequency, Cost)

Appointment (AppointmentID, Date, Time, VisitReason, Cost)

Business Rules & Assumptions

- Patient
  - Can Schedule multiple appointments
    - Not at the same time
  - May own only one insurance plan
- Appointment
  - Scheduled at one hospital
  - Scheduled with one Doctor
  - Scheduled by one patient
- Medication
  - Attributes (Status): Paused, Completed, Ongoing
  - Prescribed by the Doctor
  - Dosage and Frequency can change
  - Cost range from 0 to 1000

Business Rules & Assumptions

- Insurance Plan
  - Each insurance has its own coverage
  - One insurance plan per patient
  - Optional for Appointment or Medication (0 or 1)
- Doctor
  - Can be assigned with many appointments
    - Different times
  - Can assign multiple kinds of medications
- Hospital
  - Contains multiple Doctors
  - Can hold multiple appointments
  - Appointment number will never exceed capacity

Thank you

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