requirements for a simple clinic:

1. Patients:

• The database should store information about patients.

• Each patient should have a unique identifier, a name, adate of birth, gender, contact information (phone number,email), and address.

2. Doctors:

• The database should store information about doctors.

• Each doctor should have a unique identifier, a name , specialization, a date of birth, gender, contact information (phone number, email), and address.

3. Appointments:

• The database should store information about appointments

.• Each appointment should have a unique identifier, apatient, a doctor, appointment date and time, and appointment status.

• **Appointment Status:**

1. Pending: The appointment has been scheduled but has not yet occurred.
2. Confirmed: The appointment has been confirmed by both the patient and the healthcare provider.
3. Completed: The appointment has taken place as scheduled.
4. Canceled: The appointment has been canceled either by the patient or the healthcare provider.
5. Rescheduled: The appointment has been rescheduled for a different date or time

.6. No Show: The patient did not show up for the appointment without canceling or rescheduling.
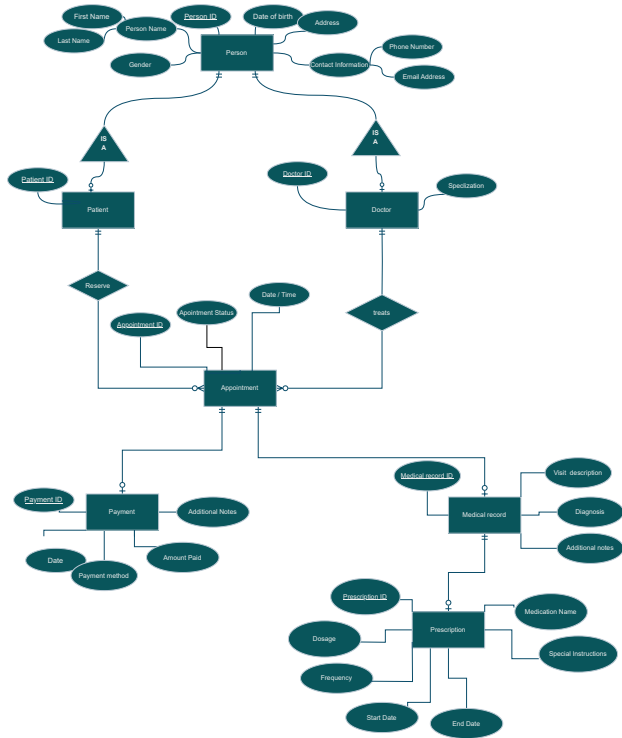
4. Medical Records:

• The database should store medical records for patients.
• For each attended appointment there should be a medical record.
• Each medical record should have a unique identifier, a patient, a doctor, a description of the visit, diagnosis , prescribed medication, and any additional notes.

5. Prescription:

• The database should store information about prescribed medications.
• For each medical record there should be at most one prescription.
• Each prescription should have a unique identifier, a medical record, medication name, dosage, frequency, start date, end date, and any special instructions.

6. Payments:

• The database should store information about payments.
• Payment is per appointment.
• Each payment should have a unique identifier, a patient, a payment date, payment method, amount paid, and any additional notes.

ER Diagram entities and attributes:

Person — First Name, Last Name, Person Name, Person ID, Date of birth, Address, Gender, Contact Information, Phone Number, Email Address

Patient — Patient ID (IS A Person)

Doctor — Doctor ID, Specialization (IS A Person)

Reserve / **Appointment** — Appointment ID, Apointment Status, Date / Time; **treats**

Payment — Payment ID, Additional Notes, Date, Payment method, Amount Paid

Medical record — Medical record ID, Visit description, Diagnosis, Additional notes

Prescription — Prescription ID, Dosage, Frequency, Medication Name, Special Instructions, Start Date, End Date

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Relational schema tables:

Person

PK	Person ID	int
	First Name	nvarchar(50)
	Last Name	nvarchar(50)
	Gender	nvarchar(1)
	Date of Birth	date
	Address	nvarchar(200)
	Phone Number	nvarchar(20)
	Email Address	nvarchar(100)

Patient

PK	Patient ID	int
FK	Person ID	int

Doctor

PK	Doctor ID	int
	Specialization	nvarchar(100)
FK	Person ID	int

Appointment

PK	AppointmentID	int
	Appointment DateTime	datetime2
	Appointment Status	tiny int
FK	Patient ID	int
FK	Doctor ID	int
FK	Payment ID	int
Fk	Medical Record ID	int

Payment

PK	Payment ID	int
	Payment Method	nvarchar(50)
	Ammount Paid	decimal
	PaymentDate	date
	Additional Notes	nvarchar(200)

Medical Record

PK	Medical Record ID	int
	Diagnosis	nvarchar(200)
	Visit Descreption	nvarchar(200)
	Additional Notes	nvarchar(200)

Prescription

PK	Prescription ID	int
	Dosage	nvarchar(50)
	Frequency	nvarchar(50)
	Start Date	date
	End Date	date
	MedicationName	nvarchar(100)
	Special Instruction	nvarchar(200)
FK	Medical Record ID	int