Database Design Document: Healthcare Tracker - Project Group 8

# 1. Business Problems Being Addressed:

The modern healthcare sector often grapples with the challenge of efficiently managing patient information, appointment scheduling, prescription management, and other crucial operations. The proposed database seeks to:  
  
- Streamline patient registration and record-keeping.  
- Efficiently manage appointment scheduling and doctor availability.  
- Track patient medical history and current conditions.  
- Facilitate easy billing and insurance coverages.  
- Ensure doctors can prescribe medications and treatments efficiently.

# 2. Entities and Relationships:

Entities:  
  
1. \*\*Person\*\*: Represents any individual in the system and contains general attributes like name, address, and contact details.  
2. \*\*Doctor\*\*: A specialization of Person, holds details pertinent to a medical professional.  
3. \*\*Patient\*\*: Another specialization of Person, captures details about patients.  
... (and so on for all entities)  
  
Relationships:  
  
- A \*\*Doctor\*\* schedules multiple \*\*Appointments\*\*.  
- A \*\*Patient\*\* has multiple \*\*Appointments\*\*, undergoes multiple \*\*Treatments\*\*, and receives multiple \*\*Prescriptions\*\*.  
... (and so on for all relationships)

# 3. Key Design Decisions:

1. \*\*Entity Specialization\*\*: The decision to have both `Doctor` and `Patient` as specializations of `Person` allows for easy scaling and addition of other roles (e.g., nurses, administrative staff) in the future.  
2. \*\*Treatment History Consolidation\*\*: Instead of having separate entities for treatment and treatment history, we consolidated them for simplicity and better tracking.  
... (and so on for all decisions)

