**Database Schema Design**

**Project Title:** HealthHub

**Document Title:** Database Schema Design

**Version:** 1.0

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**1. Introduction**

**1.1 Purpose:** The purpose of this document is to describe the database schema design for HealthHub, a comprehensive healthcare management system.

**1.2 Scope:** This document covers the structure of the database, including tables, columns, and relationships.

**2. Database Overview**

**2.1 Database Management System:**

* PostgreSQL

**2.2 ORM:**

* Prisma

**3. Tables and Relationships**

**3.1 Users Table**

**Purpose:** To store user information, including authentication details and roles.

**Columns:**

* id (Integer, Primary Key, Auto-Increment)
* email (String, Unique)
* password (String)
* role (String)
* created\_at (Timestamp, Default: current timestamp)
* updated\_at (Timestamp, Default: current timestamp)

**Relationships:**

* One-to-Many with Patients
* One-to-Many with Doctors

**3.2 Patients Table**

**Purpose:** To store patient-specific information and medical history.

**Columns:**

* id (Integer, Primary Key, Auto-Increment)
* user\_id (Integer, Foreign Key to Users)
* name (String)
* birthdate (Date)
* medical\_history (Text)
* created\_at (Timestamp, Default: current timestamp)
* updated\_at (Timestamp, Default: current timestamp)

**Relationships:**

* Many-to-One with Users
* One-to-Many with Appointments
* One-to-Many with MedicalRecords

**3.3 Doctors Table**

**Purpose:** To store doctor-specific information and their specialties.

**Columns:**

* id (Integer, Primary Key, Auto-Increment)
* user\_id (Integer, Foreign Key to Users)
* specialty (String)
* experience (Integer)
* created\_at (Timestamp, Default: current timestamp)
* updated\_at (Timestamp, Default: current timestamp)

**Relationships:**

* Many-to-One with Users
* One-to-Many with Appointments
* One-to-Many with MedicalRecords

**3.4 Appointments Table**

**Purpose:** To store appointment information between patients and doctors.

**Columns:**

* id (Integer, Primary Key, Auto-Increment)
* patient\_id (Integer, Foreign Key to Patients)
* doctor\_id (Integer, Foreign Key to Doctors)
* date (Timestamp)
* status (String)
* created\_at (Timestamp, Default: current timestamp)
* updated\_at (Timestamp, Default: current timestamp)

**Relationships:**

* Many-to-One with Patients
* Many-to-One with Doctors

**3.5 MedicalRecords Table**

**Purpose:** To store medical records created by doctors for patients.

**Columns:**

* id (Integer, Primary Key, Auto-Increment)
* patient\_id (Integer, Foreign Key to Patients)
* doctor\_id (Integer, Foreign Key to Doctors)
* record (Text)
* date (Timestamp)
* created\_at (Timestamp, Default: current timestamp)
* updated\_at (Timestamp, Default: current timestamp)

**Relationships:**

* Many-to-One with Patients
* Many-to-One with Doctors

**4. ER Diagram**

**4.1 ER Diagram:**

* An Entity-Relationship (ER) diagram visually represents the database schema, showing the tables, columns, and relationships between them. I will create this diagram using a suitable tool.