Project Title: Alliens Medical Centre Database Design – Phase 1

Project Description:

Welcome to the Alliens Medical Centre Database Design project. This project represents the first phase of your internship and focuses on designing a relational database for Alliens Medical Centre, a hospital with a vision for efficient data management. In this phase, you will work on creating the database schema, tables, and their relationships.

Project Objectives:

1. Design a relational database for Alliens Medical Centre that will store and manage critical information related to the hospital's operations.
2. Create tables for the treatment records, staff, branches, admissions, medications, patient deaths, diagnoses, and patients.
3. Establish relationships between these tables to ensure data integrity and facilitate efficient data retrieval.
4. Define column names and constraints for each table, specifying data types and ensuring proper primary and foreign key relationships.
5. Prepare a detailed database schema document outlining the structure of the database.

Table and Constraint Details:

Fact Table: Treatment

- TreatmentID (Primary Key)
- PatientID (Foreign Key)
- StaffID (Foreign Key)
- DiagnosisID (Foreign Key)
- MedicationID (Foreign Key)
- BranchID (Foreign Key)
- AdmissionID (Foreign Key)
- TreatmentDate (Date)
- Cost (Numeric, Decimal)
- Duration (Numeric, Integer)

Dimension Tables:

a. **Staff**

- StaffID (Primary Key)

- FirstName (Text)
- LastName (Text)
- role (Text)
- Contact Information (Text, Phone, Email, etc.)

b. **Branch**

- BranchID (Primary Key)
- Name (Text)
- Address (Text)
- Contact Information (Text, Phone, Email, etc.)

c. **Admission**

- AdmissionID (Primary Key)
- AdmissionDate (Date)
- DischargeDate (Date)
- RoomNumber (Text)
- PatientID (Foreign Key)
- BranchID (Foreign Key)

d. **Medication**

- MedicationID (Primary Key)
- MedicationName (Text)
- Dosage (Text)
- Description (Text)
- BranchID (Foreign Key)

e. **Death**

- DeathID (Primary Key)
- DateOfDeath (Date)
- CauseOfDeath (Text)
- PatientID (Foreign Key)

f. **Diagnosis**

- DiagnosisID (Primary Key)

- DiagnosisName (Text)
- Description (Text)

g. **Patients**

- PatientID (Primary Key)
- FirstName (Text)
- LastName (Text)
- DateOfBirth (Date)
- Gender (Text)
- Contact Information (Text, Phone, Email, etc.)

Constraints:

- Apply Primary Key constraints to the Primary Key columns of each table.
- Apply Foreign Key constraints to the Foreign Key columns to enforce referential integrity.
- Choose appropriate data types (e.g., Date, Numeric, Text) based on the database system in use.
- Ensure that column names and constraints are accurate and well-documented in the database schema.

Project Deliverables:

1. A well-structured and documented database schema.
2. SQL scripts for creating the database and its tables, including constraints.
3. A report summarizing the design decisions and justifications.
4. A presentation to discuss and present the project to the hospital's data management team.

Timeline:

This first phase is expected to be completed within [2 weeks]. You will work closely with your colleagues, who will provide support as needed.

Good luck with your project! We look forward to a successful implementation of the database design for Alliens Medical Centre.