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Database Relational Schema

The Relational Schema Includes all of the tables and relationships found in the relational database called *dental_clinic_database*.

This Includes:

1. Tables
2. Attributes
3. Primary Keys
4. Foreign Keys
5. Constraints
   ➢ Primary Key
   ➢ Range
   ➢ Value

My clinic database schema consists of the following tables:

• **Appointment**: store appointment dates and times for patients
• **Patient**: store patient's data
• **Treatment**: stores a list of treatment procedures offered at the clinic
• **Bill:** stores billing information
• **Payment**: stores payments made by patients
• **Specialist**: stores specialist data
• **Referrals**: stores patient referral data
• **Employee:** stores all employee info as well as clinic structure
• **Office**: stores clinic office data

Below is the Entity Relational Diagram (ERD) representation of the databse.

1. Zero or one *employee* to Zero or many *employee.*
2. Zero or one *employee* to Zero or many *patient*s.
3. Zero or one *employee* to One and only one *office*.
4. One and only one *appointment* to One and only one *patient*.
5. One *appointment* to One *bill*.
6. One *patient* to many *bill*.
7. One *patient* to many *referrals*.
8. One *referral* to Zero or one *treatment*.
9. One *referral* to Zero or many *specialist*.
10. One *specialist* to one *treatment*.
11. One *bill* to many *treatment*.
12. Many *bill* to Many *treatment*.

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APPOINTMENT

PK	APPOINTMENT_ID` int(10) NOT NULL
FK	PATIENT_ID` int(10) NOT NULL
	DATE DATE NOT NULL
	TIME TIME NOT NULL
FK	TREATMENT_ID` int(10) NOT NULL
	STATUS varchar (50) DEFAULT NULL

BILL

PK	INVOICE_ID varchar(15) NOT NULL
FK	PATIENT_ID` int(10) NOT NULL
FK	TREATMENT_COST decimal(5,2) DEFAULT NULL
	CANCELLATION_FEE decimal(5,2) DEFAULT NULL
FK	TOTAL_COST decimal(5,2) DEFAULT NULL

EMPLOYEES

PK	employeeNumber int(11) NOT NULL
	firstName varchar(50) NOT NULL
	lastName varchar(50) NOT NULL
	extension varchar(10) NOT NULL
	email varchar(100) NOT NULL
FK	officeCode varchar(10) NOT NULL
FK	reportsTo int(11) DEFAULT NULL
	jobTitle varchar(50) NOT NULL

PATIENT

PK	PATIENT_ID` int(10) NOT NULL
	NAME varchar (50) DEFAULT NULL
	SURNAME varchar (50) DEFAULT NULL
	DATE OF BIRTH DATE DEFAULT NULL
	ADDRESS LINE 1 varchar (50) DEFAULT NULL
	ADDRESS LINE 2 varchar (50) DEFAULT NULL
	PHONE varchar (20) DEFAULT NULL
	EMAIL varchar (100) DEFAULT NULL
FK	CASE_MANAGER int (11) DEFAULT NULL

TREATMENT

PK	TREATMENT_ID int(10) NOT NULL
FK	TREATMENT_TYPE varchar(50) DEFAULT NULL
FK	TREATMENT_COST decimal(5,2) DEFAULT NULL
	SPECIALIST_REQUIRED varchar(10) DEFAULT NULL

PAYMENT

PK	PAYMENT_ID` varchar(15) NOT NULL
FK	INVOICE_ID` varchar(15) NOT NULL
	PAYMENT_TYPE` varchar(50) DEFAULT NULL
FK	TOTAL_COST` decimal(5,2) DEFAULT NULL
	PAYMENT_STATUS varchar(50) DEFAULT NULL

OFFICES

PK	officeCode varchar(10) NOT NULL
	addressLine1 varchar(50) NOT NULL
	addressLine2 varchar(50) DEFAULT NULL
	city varchar(50) NOT NULL
	phone varchar(50) NOT NULL
	postalCode varchar(15) NOT NULL

REFERRALS

PK	SPECIALIST_REF` varchar(15) NOT NULL
FK	PATIENT_ID int(10) NOT NULL
FK	SPECIALIST_ID varchar(15) NOT NULL
	DATE DATE DEFAULT NULL
	TIME TIME DEFAULT NULL

SPECIALIST

PK	SPECIALIST_ID varchar(15) NOT NULL
FK	TREATMENT_ID int(10) NOT NULL
	SPECIALIST_NAME varchar(50) DEFAULT NULL
	SPECIALIST_ADDRESS varchar(50) DEFAULT NULL
	CONTACT_NO varchar(13) DEFAULT NULL