Database Design and Development Project

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Introduction

The aim of the project is to design and construct a database for a fictional dental practice.

Database tables

The database consists of seven tables: patients, appointments, treatments, bills and payments, doctors, addresses.

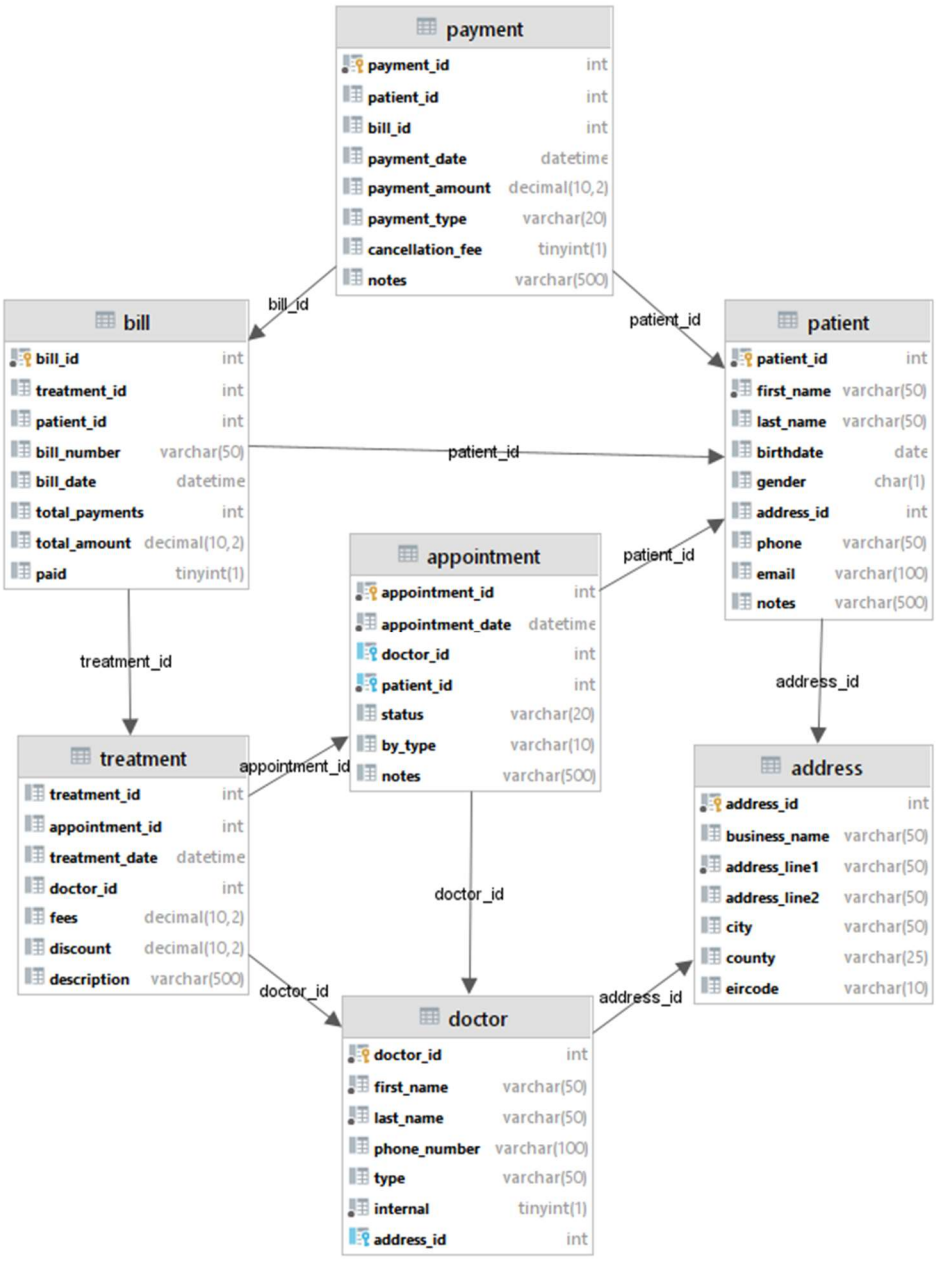

Table *patient* stores patients' data.

- Common attributes for every patient.
- Address(es) are stored in a separate table *address*

Table *doctor* contains information about the doctors.

- Basic information about doctors (including external specialists)
- Flag "internal" marks specialists working for Dr. Mary Mulcahy on a regular basis

Table *appointment* stores information about patient visits.

- Appointments have a status (scheduled, completed, cancelled, rescheduled etc.)
- Appointment can be cancelled for free or charged the late cancellation fee
- Appointment can be re-scheduled to another [AppointmentDate]

Table *treatment* contains records about the procedures given to patients.

- Treatment [TreatmentId] is given to a single patient
- Treatment can be referred to an external specialist due to lack of expertise/equipment
- Each treatment has an associated cost; a discount can be provided according to Treatment Fess guidelines book.

Table *bill* stores financial statements of the money that the patients owe to the clinic.

- Patient [PatientId] owes [totalAmount] for bill [BillId] after attending treatment [TreatmentId] @ [Fees] minus [Discount]
- Bill is created for a single [TreatmentId] and billed on [billDate];
- Multiple payments can be made towards [BillId]
- The bill is marked as paid when the total cost is equal or greater than the total amount of payments made

Table *payments* contains the periodic payments that the patients make.

- A patient can make multiple payments
- Payment usually has an associate bill [BillId]
- A late cancellation fee of ten euro applies, [BillId] in this case is NULL as the bill does not exist in the parent table

Technical Notes

Use **EXPORT.sql** script to create the database. Use **Queries.sql** to run different SQL queries on the test data.

References

[1] Carlos Coronel, "Database Principles. Fundamentals of Design, Implementation, and Management"

[2] Churcher Clare, "Beginning Database Design", Apress