

1. Functional Requirements

The functional requirements for the Advantis Dental Surgeries (ADS) system are as follows:

1. The system shall allow the Office Manager to register new Dentists with the following details: unique ID, first name, last name, contact phone number, email, and specialization.
2. The system shall allow the Office Manager to register new Patients with the following details: first name, last name, contact phone number, email, mailing address, and date of birth.
3. The system shall allow Patients to request appointments via phone or by submitting an online form.
4. The system shall allow the Office Manager to schedule appointments between Patients and Dentists at specific Surgery locations.
5. The system shall automatically send confirmation emails to Patients upon successful appointment booking.
6. The system shall allow Dentists to sign in and view a list of all their appointments, including Patient details.
7. The system shall allow Patients to sign in and view their appointments, including Dentist information.
8. The system shall allow Patients to request to cancel or reschedule their appointments.
9. The system shall maintain information about each Surgery, including name, address, and telephone number.
10. The system shall prevent assigning more than 5 appointments to a Dentist within the same week.
11. The system shall block Patients from requesting new appointments if they have any outstanding unpaid bills.
12. The system shall require authentication for all users (Patients, Dentists, Office Manager) to access their respective functionalities.

2. Domain modeling

