* 1. **For the problem statement given above, perform Requirements discovery and identify the functional requirements for the system, and present them in a list of short statements.**

**User Authentication:**

The system can allow users including Office Manager, Dentists, Pattients to log in and log out.

**Dentist registration and management**

The system can register Dentists to join their network of detal surgeries.

The system can maintain the data about each dentist in the database.

**Patient Management**

**Appointment Scheduling**

The system can allow users to request an appointment to see a doctor by calling or submitting an online form on the ADS website.

The system can allow users to book the appointment and automatically send a confirmation to the patient.

The system maintain recorded appointments .

**Appointment Management**

The system allows dentists to sign in to the system and view a listing of all their appointments

The system should provide information about each Surgery, including its name, location address, and telephone number.

The system should allow users to sign in to the system and view their appointments, including the information of the dentist they have been booked to see.

The system only allow not more than 5 appointments in any given week.

**Financial Control**

The system should prevent a Patient from requesting a new appointment if they do not pay bill after receiving the services.

**1.2. Perform System Analysis & Design, and create a Domain model UML Class diagram for the software solution. In your model, make sure to include the appropriate attributes for each class, and the relationships and multiplicities and roles (where appropriate). You may draw your diagram using a software tool on your computer (e.g. StarUML or draw.io etc), and save/export it to a PNG or JPG image file. Or you may use paper and pencil, and then take a PNG or JPEG photo.**

A screenshot of a computer screen

Description automatically generated