

1. The functional requirements I observed are:

- a) The Office Manager enroll new Patients that requires dental services.
- b) The patient requests an appointment by submitting an online form.
- c) The Office Manager books an appointment for the patient.
- d) The patient receives a confirmation email for his appointment.
- e) The appointment gets recorded to the system.
- f) The dentists sign in to ADS website, view their appointments list including their patients' details.
- g) The appointments are organized by date, time and the ADS's surgery locations.
- h) Each Surgery contact information (name, address and phone number) is available.
- i) Patient can sign in to the system and view their appointments, and his dentist.
- j) Patients can change/cancel his appointments
- k) A Dentist can have a maximum of 5 appointments a week.
- l) Patient with outstanding, unpaid bill are denied from making new appointment.

2. UML Class diagram:

The following are the classes that we are going to build the UML diagram from:

Dentist(dentistId, firstName, lastName, phoneNumber, email, specialization)

Patient(patientId, firstName, lastName, phoneNumber, email, dateOfBirth, Address, outstandingBill)

Appointment(appointId, dentist, patient, appointmentDate, appointmentTime, surgery)

Surgery(surgeryId, surgeryName, address, phoneNumber)

User(Username, password, role)//role -> Officer Manager, Dentist, Patient

Notification(notificatinId)

