

Task1.1: Define System Requirement

1. Functional Requirements

Dentist Registration

- The system shall allow the Office Manager to register Dentists.
- Each Dentist shall be assigned a unique ID number.
- Dentist information, including First Name, Last Name, Contact Phone Number, Email, and Specialization, shall be recorded.

Patient Enrollment

- The system shall allow the Office Manager to enroll new Patients.
- Patient information, including First Name, Last Name, Contact Phone Number, Email, Mailing Address, and Date of Birth, shall be recorded.

Appointment Management

- Patients shall be able to request appointments via phone or the ADS website.
- The Office Manager shall be able to book appointments for Patients, specifying the date, time, and surgery location.
- Confirmation emails shall be sent to Patients upon booking appointments.

Dentist Access

- Dentists shall be able to sign in to the system.
- Dentists shall have access to a listing of all their scheduled Appointments, including Patient details.

Surgery Information

- The system shall store and provide information about each Surgery, including name, location address, and telephone number.

Patient Access

- Patients shall be able to sign in to the system.
- Patients shall have access to their scheduled appointments, including Dentist information.
- Patients shall be able to request to cancel or change their appointments.

Appointment Constraints

- Dentists shall not be assigned more than 5 appointments in any given week.
- The system shall prevent Patients with outstanding, unpaid bills from requesting new appointments.

Non-Functional Requirements

Security

- The system shall implement user authentication and authorization mechanisms.
- Patient and financial data shall be encrypted and securely stored.

Performance

- The system shall be responsive and provide real-time appointment booking.
- The system shall handle concurrent user access efficiently.

Scalability

- The system architecture shall be scalable to accommodate the growing network of dental surgeries.

Reliability

- The system shall be available 24/7 with minimal downtime.
- Data integrity shall be maintained, and data loss shall be minimized.

Usability

- The system shall have an intuitive user interface for easy navigation.
- User training and documentation shall be provided.

Compliance

- The system shall comply with data privacy and healthcare regulations in the South West region.

Constraints

- The system shall be accessible via standard web browsers.
- Only valid City of Fairfield-issued identification cards shall be accepted for patient registration.

Glossary

Office Manager: An authorized user responsible for managing Dentist and Patient records.

Dentist: A registered dental professional.

Patient: An individual seeking dental services.

Surgery: A dental surgery location managed by ADS.

Task1.2: Perform System Analysis & Design

- Appointment
- Surgery
- OfficeManager
- PatientManager
- DentistManager