**Team Project Title:**

**Dental Booking System**

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# Project Objective

The objective of the project is to allow appointments, treatments, and dentists to be managed dynamically on a virtual system. The system will be web-based and will allow receptionists and dentists to access it to book, cancel, update and view appointments.

# Project Requirements

1. Appointment Scheduling: Enable patients to book appointments with the dentists based on availability.
2. Dentist availability: Show when the dentists are available.
3. Reminders: Send automatic reminders for appointments.
4. Emergency Appointments: Have a mechanism to provide and handle dental emergencies.
5. Patient Records: Keep track of patient information and history.
6. Treatment options: List available dental options.
7. Payment Options: Allow patients to pay online.
8. Easy Changes: Allows patients to change or reschedule an appointment.
9. Waiting List: Manage and control a list for earlier appointments.
10. Reports: Provide statistics and information about the clinic.

# Benefits to the business

1. Allows a user to easily book a dental appointment.
2. Increased number of new patients.
3. Be able to maintain patient records.
4. The availability of online payment options is essential for converting visitors into customers.
5. Easy to manage: You can automate and organize all procedures including appointment booking, customer service, staff schedules, and payment processes within your dental clinic appointment system.
6. Improves customer experience: Dental appointment scheduling software allows complete automation of the booking process.
7. Automated reminders reduce no-shows, enhancing patient satisfaction and improving scheduling efficiency.
8. Customizable features ensure the software evolves with the clinic's needs, accommodating growth in patients and staff.
9. Beyond scheduling, the software automates administrative tasks, optimizing staff workflows for better focus on patient care.
10. Robust security measures protect patient data, fostering trust and ensuring compliance with legal and ethical standards.

# Skills and knowledge acquired by team members

1. Enhancing web development skills, including front-end and back-end development, to create a user-friendly and functional web-based system.
2. Learning and applying programming languages such as JavaScript and Node.js to develop the required functionalities of the Dental Booking System.
3. Obtaining knowledge of database management, in this case SQLite, is ordered to store and retrieve patient data, appointment calendars, and other relevant data.
4. Requiring a thorough understanding of system architecture and design to effectively manage patient data, appointment scheduling, and other features.
5. Developing knowledge regarding project management by organizing work, establishing deadlines, and making sure the project moves forward without hiccups within the allotted time.
6. Enhancing teamwork and communication abilities, as effective teamwork is essential to the project's performance.
7. Acquiring knowledge on creating and executing automated systems for scheduling appointments, handling administrative duties, and other procedures to improve the dental clinic's efficiency.
8. Acquiring skills in testing and quality control to guarantee that the Dental Booking System fulfils all requirements and operates as intended.
9. Developing a means to precisely document the features, specifications, and changes made to the system during development.
10. Making accurate decisions, assessing various design and implementation possibilities, and guaranteeing the system satisfies project objectives all depend on the ability to think critically.

# Reasons this project idea was chosen over others

Firstly, as a group, we decided that the Dental Booking System caters to an essential and specific healthcare need, ensuring that patients can easily schedule appointments with dentists.

While being essential for healthcare, the dental booking system stood out as a more straightforward system to create, and everyone understood the objective of the project and we believe this helped avoid any confusion.

# 

# Use Case Diagram

A diagram of a patient's surgery

Description automatically generated

# Class Diagram

A diagram of a workflow

Description automatically generated

# Software Environment

Database: SQLite

Programming languages: JavaScript, Node.js

# External resources/inspirations

-Umlet

-GitHub

-SharePoint