MyDent Dental Website Enhancement & Feature Enrichment

Project Vision Document

Version 1.0

10/1/2023

Revision History

Revision	Date	Author	Reviewed By	Summary of Changes
1.0	2023-10-01	Oguzhan Burhan		Initial draft of the Project Vision Document for the dentist office web app.
1.1	2023-10-01	Oguzhan Burhan		Added Stakeholder Requirements and System Features based on feedback
1.2	2023-10-1	Oguzhan Burhan		Updated Assumptions and refined System Features.

Document Approval List

Version	Approved By	Signature	Date
1.2	Abbas Said		2023-10-01
1.2	Raul England Pelenio		2023-10-01
1.2	Erdal Ozkaya		2023-10-01
1.2	Ruslan Makhanov		2023-10-01

Document Distribution List

Version	Name of the Receiver/Group	Date
1.0	Dental Office Management Team	2023-10-01
1.1	IT Development Team	2023-10-01
1.2	All Stakeholders	2023-10-01

Table of Contents

1   Introduction

This Project Vision Document outlines the strategic direction, scope, and key features of the web app designed for a dentist office. It serves as a guiding document for stakeholders, developers, and users, ensuring alignment in objectives and expectations.

1.1   Purpose

The purpose of the Project Vision Document is to provide a clear and comprehensive overview of the dentist office web app project. This document will ensure that all stakeholders have a unified understanding of the project's goals, scope, and key features. It is created to guide the development process, align stakeholders, and set clear expectations.

1.2   Scope

The scope of this project encompasses the development of a web app tailored to the needs of a dentist office, focusing on patient convenience and operational efficiency.

1.2.1 In Scope

- Development of a patient portal for profile management, appointment booking, treatment history, and digital forms.
- Creation of a staff portal for calendar management, patient records access, billing, and reporting.
- Integration of educational content on dental care and treatments.
- Integration with existing office management software, SMS, email, and payment gateways.

1.2.2   Out of Scope

- Development of a mobile application version of the web app.
- Integration with third-party health record systems.
- Physical hardware or infrastructure setup for the dentist office.

1.3   Definitions, Acronyms, and Abbreviations

Term	Explanation
Web App	A web-based application accessible via a browser.
Patient Portal	A digital platform where patients can manage their profiles.
Staff Portal	A digital platform for the dental office staff to manage operations and patient data.
SMS	Short Message Service, commonly referred to as text messaging.
URL	Uniform Resource Locator, commonly known as a web address.

1.4   References

Reference File Name	Version	Description
Dental Office Management Software Manual	2.0	User manual for the existing office management software.
Patient Data Privacy Guidelines	1.1	Guidelines on ensuring patient data privacy and security.

Name	Link
Dental Association Best Practices	www.dentalassociation.org/bestpractices
Research on Digital Transformation in Healthcare	www.healthresearch.org/digitaltransformation

2   Positioning

2.1   Business Opportunity

With the increasing reliance on digital platforms for healthcare management, there's a significant business opportunity in providing a comprehensive web app tailored for dental offices. This platform will not only enhance patient experience but also streamline office operations, leading to increased patient retention, reduced operational costs, and improved service delivery.

2.2   Problem Statement

The Problem of inefficient manual processes and lack of a centralized digital platform affects dentists, dental hygienists, administrative staff, and patients the impact of which is increased wait times, potential for human error, missed appointments, and a lack of accessible information for patients a successful solution would be a user-friendly web app that centralizes appointment bookings, patient records, billing, and provides educational content.

The Problem of	inefficient manual processes and lack of a centralized digital platform
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Table 1 Problem Statement

2.3   Product Position Statement

For patients seeking convenient dental care and dental offices aiming for operational efficiency Who need a centralized, digital platform for appointment management, billing, and information access. The Dentist Office Web App is a dental management web application that offers a seamless digital experience for both patients and staff. Unlike generic appointment booking platforms or fragmented software solutions, our product integrates patient management, appointment scheduling, billing, and educational content tailored for dental care.

For	patients seeking convenient dental care and dental offices aiming for operational efficiency
Who	need a centralized, digital platform for appointment management, billing, and information access
The <product name>	is a dental management web application
That	offers a seamless digital experience for both patients and staff
Unlike	generic appointment booking platforms or fragmented software solutions
Our product	integrates patient management, appointment scheduling, billing, and educational content tailored for dental care

Table 2 Product Position Statement

2.4 SWOT Analysis

<Reference: https://www.businessballs.com/strategy-innovation/swot-analysis/)

Strengths:

The dental office likely has a team of skilled and qualified dentists, dental hygienists, and staff with expertise in oral healthcare. Our office has access to advanced dental equipment and technology for diagnostics, treatment, and patient care.

Being in a big city can provide a large and diverse patient base, including a mix of local residents and professionals. If the dental office has a good reputation, it can attract more patients through word-of-mouth and online reviews. Offering specialized dental services (e.g., orthodontics, oral surgery) can set the office apart from competitors.

Weakness:

Operating in big city comes with higher expenses, including, rent, utilities, and staff salaries, which can strain our finances. Big cities often have many dental practices, leading to intense competition for patients.

Compliance with city-specific regulations, permits, and licensing requirements can be challenging and time-consuming. Patients in big cities may be more transient, leading to a higher risk of patient attrition as people move or change providers. Dealing with various insurance companies and policies can be complex and time-intensive.

Opportunities:

As the city's population grows, we have an opportunity to tap into a larger and expanding patient base. Participating in community events, health fairs, or school programs can help attract new patients.

Expanding services to include telemedicine consultations can reach a broader audience. The diversity of a big city can create opportunities to serve various cultural and language communities. Collaborating with local businesses, healthcare providers, or schools can lead to referrals and partnerships.

Threats:

Economic downturns can affect patients' ability to pay for dental services. Changes in healthcare policies and insurance reimbursement rates can impact revenue.

High competition can lead to price wars and reduced profitability. Health crisis, such as pandemics, can disrupt operations and reduce patient visits. Lawsuits or regulatory violations can harm the reputation and financial stability of the dental office.

3   Stakeholder and User Descriptions

Understanding the stakeholders and users is pivotal to the success of any project. By profiling them, we gain insights into their needs, pain points, and expectations, which in turn helps in crafting a solution that is both effective and user centric.

3.1   Stakeholder Summary

Stakeholder Name	Represents	Role
John Johnson	John is a potential client for the website's services. He is a Dentist looking to enhance his practice's online presence, functionality, and patient engagement through website enhancement and feature enrichment.	Throughout the project, John's role as a stakeholder is to ensure that the team's project aligns with his goals, his involvement in the various project phases helps ensure that the project success and its alignment with his professional objectives.

Table 3 Stakeholder Summary

3.2   User Summary

User Name	Description	Responsibilities	Stakeholder
Sarah Nguyen	Sarah is a **Dental Hygienist** at the dental practice. She is an important person who plays an important role in the smooth operation of the practice.	Her responsibilities involve capturing scheduling details, managing and ordering dental supplies, accessing patient records, and coordinating her work effectively during patient treatments. She also ensures patients receive appropriate post-treatment care instructions.	It is the responsibility of the dental practice's management to represent her needs and interests

User Name	Description	Responsibilities	Stakeholder
Robert Rodriguez	Robert represents as a **Dental Assistant** with the dental practice. He plays a crucial role in assisting the dentist	Robert's responsibilities involve preparing supplies for treatments, managing and ordering dental supplies, accessing patient records, coordinating work with the dental team, and effectively communicating post-treatment care instructions to patients.	It is the responsibility of the dental practice's management to represent his needs and interests
Lisa Martinez	Lisa represents as the **Office Manager** of the dental practice. She plays a role in managing and optimizing practice operations	Lisa is responsible for efficiently scheduling patient appointments, coordinating staff schedules, and allocating resources like treatment rooms. She also produces reports for data-driven decisions, prioritizes urgent appointments, and aims to enhance both patient experience and staff productivity.	it is dental practice's management or administration team, possibly including Lisa, who ensures that the system aligns with her needs.

User Name	Description	Responsibilities	Stakeholder
John Foster	John represents as the **Patient** of the dental practice. He is the end-user of the system, primarily focused on managing his dental appointments and personal records, and communicating with the dental practice	John's primary responsibilities include scheduling and managing his dental appointments through the online or mobile app, accessing his personal dental records and treatment plans, actively engaging with appointment reminders and notifications, and utilizing the messaging feature to communicate with the dental practice when needed. He plays a vital role in ensuring that his dental care is efficient and well-coordinated through the system.	John Foster, as the patient, directly represents his own interests and needs within the system. The system's development should prioritize features and functionalities that cater to his goals, ensuring a seamless and patient-centric experience.

Table 4 User Summary

4   Stakeholder Requirements

ID	Requirement	Stakeholder
R1	Ability to book, reschedule, and cancel appointments online	Patients
R2	Ability to update the availability of different materials	Dentists & Administrative Staff
R3	Patients can view different procedures the dentist has to offer	Patients
R4	Calendar management for appointment scheduling	Dentists & Administrative Staff
R5	Access to patient profiles and treatment plans	Dentists & Administrative Staff
R6	Reporting tools for revenue and appointment trends	Administrative Staff
R7	Secure storage and backup of patient data	Dentists & Administrative Staff
R8	Integration with existing office management software	IT Team

Table 5 Stakeholder Requirements

5   System Features

ID	Feature	Stakeholder Requirement ID
F1	Online Appointment Management	R1
F2	Inventory Management	R2
F3	Information Portal	R3
F4	Staff Calendar Dashboard	R4
F5	Patient Profile Access and Management	R5
F6	Reporting and Analytics Tools	R6
F7	Secure Data Storage and Backup	R7
F8	Integration Module with Existing Software	R8

Table 6 System Features

6   Assumptions

- The dental office has existing office management software that the new web app needs to integrate with.

- Patients have access to the internet and devices to use the web app.
- The dental office has the necessary infrastructure to support the web app, including servers and internet connectivity.
- Training will be provided to the staff to familiarize them with the new system.
- The dental office adheres to all regulations and guidelines related to patient data privacy.
- The web app will be accessible 24/7 unless maintenance is required.
- Feedback will be collected from both patients and staff during the initial phase to make necessary improvements.

7   Constraints

1. Process Constraints
a. Time Constraints
i.   There may be tight deadlines for the project for system development, especially if the practice wants to implement the system quickly to improve their operations.

2. External Constraints
a. Hardware and Infrastructure
i.   System's functionality will be constrained by the hardware that the dental practice uses. Compatibility with existing systems and the consideration of doing hardware upgrades.
b. Data Migration
i.   Migrating from the existing system to the new system will be complicated and time-consuming. Data accuracy and integrity must be always maintained during migration.

3. Other Dependencies
a. Development Team Availability
i.   The success and timeline of the project may vary of the availability and commitments of individuals who have varying schedules and projects to attend to.
b. Feedback and Iteration
i.   Depending on the feedback of the stakeholder and user feedback, the system may require ongoing updates and interactions, making continuous development and supporting dependency.