Brilliant Dentistry CRM

Project Vision Document

Version 0.1

2022-09-26

Revision History

Revision	Date	Author	Reviewed By	Summary of Changes
0.1	2022-09-26	Modulix	Reza Dibaj	first version

Document Approval List

Version	Approved By	Signature	Date
0.1	Reza Dibaj	*Reza Dibaj*	10/11/2022
0.1	Anjana Shah		

Document Distribution List

Version	Name of the Receiver/Group	Date
0.1	Shiva Aghaha	10/11/2022
0.1	Reza Dibaj	10/11/2022
0.1	Anjana Shah	10/11/2022

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1   Introduction

Brilliant Dentistry is using an open-source software called Open Dental for data handling and daily operations at the clinic. Brilliant Dentistry is seeking to develop a patient portal to serve as a customer facing interface.

The goal of this project is to create a website where patients can easily access clinic information, contact the clinic, register, book appointment as well as retrieve information about their past visits.

1.1   Purpose

The main purpose of this vision document is to define the high-level scope of the Brilliant Dentistry Website and Patient Portal and the purpose of the project.

1.2   Scope

1.2.1   In Scope

- Create a react frontend with responsive design that will have core functionality for the primary stakeholder, employees and customers.
- Design and deploy an MySQL database using industry best practices on a cloud provider
- Create a restful flask api to host backend services and allow the frontend to access core business processes, the flask backend would also provide access to the database and authentication.
- Execute different types of testing (unit test, integration test, function test, user acceptance test) to ensure the functions work as per requirements

1.2.2   Out of Scope

- Marketing and dental specialized content shall be provided by the clinic
- Maintaining website domain (http://www.brilliantdentistry.ca/)
- Integration with Open Dental

1.3   Definitions, Acronyms, and Abbreviations

Term	Explanation
Flask	is a micro web framework written in Python that lets you develop web applications easily.
Restful	an application programming interface (API or web API) that conforms to the constraints of REST architectural style and allows for interaction with RESTful web services.
API	acronym for **Application Programming Interface**, which is a software intermediary that allows two applications to talk to each other.

| React | React is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta and a community of individual developers and companies. |
| Open Dental | Open Dental, previously known as Free Dental, is an open-source dental practice management software licensed under the GNU General Public License. It is written in the C# programming language compatible with Microsoft .NET Framework and was first released in 2003 |

1.4   References

<This subsection provides a complete list of all documents referenced elsewhere in the Project Vision**.** Identify each document by title, report number if applicable, date, and publishing organization. Specify the sources from which the references can be obtained. This information may be provided by reference to an appendix or to another document>

Reference File Name	Version	Description

2   Positioning

2.1   Business Opportunity

The website will serve as a portal to advertise clinics and maintain a direct communication with the existing patients and potential patients. A professional-looking website with reliable and well-organized information with an easy to use booking function that will attract new patients and retain existing patients, while also improving business performance.

2.2   Problem Statement

Brilliant dentals current website serves as the patient portal but doesn't work as expected. A variety of issues have been identified such as lack of http secure certificate, duplicated content, redundant information, rendering errors, and broken functions. The business is now seeking for a company to redesign the website, add new functions and ensure the functions work as per requirements.

The Problem of	Making information available to the patients and allowing patients to make bookings and access their visit records
affects	Brilliant Dentistry
the impact of which is	Existing and New Patients have no or limited access to reliable and accurate information about the clinic and services it provides. This presents challenges for the clinic that affect communication and the relationships with the current patients as well as reaching out to new patients.
a successful solution would be	A website which has complete information about the clinic, the team and the services that also allow patients to register, book appointments and view past visit records. Also, sensitive medical information about the patients must be stored and retrieved in a fashion that mitigate the risk of data leak and exposure.

Table 1 Problem Statement

2.3   Product Position Statement

< A product position statement communicates the intent of the application and the importance of the project to all concerned personnel >

For	Brilliant Dentistry
Who	needs a patient portal
The Brilliant Dentistry CRM	is a web application
That	that serves as an advertising space and communication channel with the existing patients as well as potential patients
Unlike	other dental clinic websites
Our product	is tailor made for this specific business

Table 2 Product Position Statement

2.4 SWOT Analysis

Strengths	Weaknesses
The web application will use HTTPS to ensure the confidential transmission of data.	Booking system might have less nice to have features than competing booking systems.
Tailormade booking system with required features based on the businesses actual needs.	Registration system won't integrate with existing commercial/non-commercial patient management systems.
Current static website will be replaced by a web application that will allow it to be extended with features if the clinic requires more functions at a later point.	The web application does not support a multi-tenant business model.
Opportunities	**Threats**
Attract new patients to book appointments giving accurate, informative and timely information about the clinic. Also, retain existing patients as the new website will provide a more effective way to communicate and share information between the clinic and the patients	Customers could decide not to consent to data collection down the line if the application user base grows.
Reduce the overhead work for front desk receptionists as less phone calls will be made in order to create new booking, confirm timeslot, and other types of inquiry.	Open Dental will not allow our product to integrate with it and will force us to fall back on more manual processes.

3   Stakeholder and User Descriptions

3.1   Stakeholder Summary

Stakeholder Name	Represents	Role
Dr. Shiva Aghaha	Business owner will use system to manage business	Provide requirements and feature requests.
Prof. Reza Dibaj	Project counselor/liaison	Liaise with the clinic and the development team
Modulix	The development team	Create and deploy application
Employees	Will use the system to manage their responsibilities	Will provide feedback on application usability

Table 3 Stakeholder Summary

3.2   User Summary

User Name	Description	Responsibilities	Stakeholder
[Name the user]	[Briefly describe what they represent with respect to the system.]	[List the user's key responsibilities with regard to the system being developed; for example: captures details produces reports coordinates work and so on]	[If the user is not directly represented, identify which stakeholder is responsible for representing the user's interest.]
Dr. Shiva Aghaha	Main client, clinic owner.	Provide project requirements, request features, provide feedback, suggest enhancement and provide approval	Clinic owner
Prof. Reza Dibaj	Patient	Provide usability feedback	Clinic Patient
Development team	Design, creation and deployment	Responsible for the design, creation and deployment of main application, databases required by application and user frontend	Modulix

User Name	Description	Responsibilities	Stakeholder
Employees	System users	Provide usability feedback	Employees

Table 4 User Summary

4   Stakeholder Requirements

ID	Requirement	Stakeholder
1	Display information about the clinic	Patients
2	Display information about the team	Patients
3	Display information about the services	Patients
4	Display clinic/service reviews	Patients
5	Allow patients to register and login using their accounts	Patients
6	Allow patients to create booking by selecting the services, technicians/dr and the available timeslot	Patients
7	Allow patients to access their past visit records/bookings	Patients
8	Allow clinic staff to view a list of bookings being made via the site	Clinic Staff
9	Allow clinic staff to manage patient visit records	Clinic Staff
11	Allow clinic staff to manage patient profile	Clinic Staff
12	Follow data privacy requirements	Developers

Table 5 Stakeholder Requirements

5   System Features

ID	Feature	Stakeholder Requirement ID
1	View Home Page	1
2	View About Page	1
3	View Our Team Page	2
4	View Services Page	3
5	View Reviews Page	4
6	Registration	5

ID	Feature	Stakeholder Requirement ID
7	Authentication and authorization	5, 8
8	Reset Password	5
9	Change Password	5, 8
10	Update Patient Information	5
11	Create Appointment Booking	6
12	Update Appointment	9
13	View Visit Record/Appointment	7
14	View All Patient Past and Upcoming Appointments	8
15	Update Patient Appointment	8
16	View All Patients Information	10
17	Employ Data Secure Measurements (Data Masking, Data Encryption, Secure HTTP/FTP protocols)	11

Table 6 System Features

6   Assumptions

- Front desk person needs to make sure that the schedule on the website is aligned with the schedule in Open Dental and maintain an update-to-date time slot availability
- The clinic needs to provide the content (text, images, media) to be displayed on the website.
- The website will be provided to the clinic for free of charge and our budget will be approximately zero.
- The new website will be replacing the existing website and hosting on the same domain.
- The clinic is willing to increase the amount they pay for hosting by a small amount due to the nature of creating a web application which tends to cost more than static sites.

7   Constraints

- Limited access to Open Dental data which is the current software used to manage the clinic which contains confidential information and records about patients.

- No access to confidential medical records of patients due to the Personal Health Information Protection Act which protects the information of clients and mandates that patients consent to have their information disclosed.
- Due to the fact we have no budget, we need to be really careful about the services to try and procure so that we don't go over our budget of zero.
- We have a limited time to complete this, which is the time allotted for the capstone, meaning we will have really tight deadlines.