Vision and Scope Document

**for**

Apelo Dental Clinic System (ADENICSY)

**Version 1.0 approved**

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# Revision History

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| **Name** | **Date** | **Reason For Changes** | **Version** |
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# Business Requirements

This chapter will discuss the background of the business, the challenges it faces, and the objectives laid out by the solutions proposed by the developer.

## Background

Apelo Dental Clinic (ADC) is the chosen client of the developers. It’s owned by Dr. Denroe Apelo, located in Dr Arcadio Santos Ave, Parañaque City, established since 2001. Their mission is to provide quality service with affordable price, so no one is deprived of good oral health care and their vision is to continuously upgrade to deliver highest dental care in safe environment for life-long. However, ADC’s current processes such as queueing of patients and recording patient information still relies on traditional or manual process.

The clinic allows minimal balances for patients with existing records. Having said that, if we can spread the number of patients throughout the day in a month since most of the procedures done in a day are still orthodontics which means that these patients will still come back and can be allowed to have a minimal balance, they can be assigned on weeks with a smaller number of patients instead of heaping on a certain week.

Aside from the concern on long waiting time, patient’s information such as personal information, medical history and payment records are manually written in an index card. This is prone to long time of retrieval or sometimes the index card gets lost because of too many records since 2001.

## Business Opportunity

The technique of patient’s queuing has been changed several times to find the best way to handle numerous patients. Their latest technique is a combination of listing names and time of arrival in a paper as early as 4 am in the morning and giving a numbered card to patients at 8:30 am before the clinic operates from 9 am – 5pm. This results in long waiting time for the patient because they will not know the current number being served so they might come back too early or too late that they might cut others in line. Aside from that, the patient’s duration of procedure is very indefinite as well, because the time will only be based on the doctor’s findings on what procedure should be done for a certain patient (which means, this factor that also cause the long waiting time is out of control by the clinic or the developers).

There were certain weeks in a month where patients are less and other weeks where the number of patients is overwhelming. One of the reasons for this is the salary period of the patients where they tend to visit the clinic more on the day that they have money.

Manual filing system also slows the day-to-day process of the business. When patients are about to be served, their index card will be retrieved by the front-desk staff, if the staff found it, she will prepare it with all the other files needed by the patient, but when it’s lost, the patient is required to fill another index card that cause problems like due to lost records. During the treatment, the index card will be handed to the doctor where he/she will put information like what he did, how the tooth looks like by putting marks on the teeth model, and putting the procedures done on that session with the total amount on a piece of paper that is clipped in the index card. The patient will then go to the accounting staff where they will pay the amount which sometimes incur some balance that is why the accounting staff should be the one to enter the total money paid by the patient in the index card.

The accounting staff will also need to write all the payment in piece of paper that she receives which at the end of the day she will forward to Dr. Denroe. While the index card will be put back to where it should be placed based on alphabetical order of names.

## Business Objectives and Success Criteria

This section enumerates the business objectives defined from the problem identified and its success criteria.

1. Aim to make the waiting time from 4 hours to 1 hour.

2. Provide a search function that will show the recent medical information of a certain patient.

3. Make queueing number online so that patients can get the number through their mobile phones and see the current number in the clinic as it updates.

## Customer or Market Needs

For Staff who need to arrange medical records, manage the queueing, and process the payment transactions of the patients. The software allows the staff to reduce procedures in managing medical records, manage queueing efficiently, and record the payment transactions of the patients easily. Unlike the previous system where they need to retrieve the medical records from physical file, give a card number for queueing, and write the payment information in the index card. Our product will provide a feature to search the medical information of the patient’s efficient management of queueing from finalizing doctor schedule, generating available number of slots, tracking queueing list, updating the current number, etc. an automated process from the doctor inputting the payment details, accessing capability for the staff and real time reflection of the payment on the patient’s end.

For Patients who need to get a card number and track the current number in the clinic. The software allows patients to get a number and track the current number wherever they are. Unlike the current manual system, that took too much time to get a card number and wait in the clinic for too long. Our product will provide online queuing numbers and tracking the current number with notification to the patient.

For Doctors who need to access their patients’ medical records easily. The software allows doctors to retrieve their patient’s information instantaneously. Unlike using index cards where retrieval, inputting, and navigating of information is slow. Our product will provide ease in managing patient’s information.

For Admin who Needs to manage his employee’s access. The software allows the admin to update and add employees to the system. Unlike the previous system where employees have access to various information. Our product will increase security in the clinic.

## Business Risks

The major business risk that the product brings is the error during the transition of the clinic from manual to using ADENICSY. Several processes can be very different from its current implementation so the developers will provide manuals and support to the clinic as they adapt to using the system. The migration of old data from their index card could also be an issue, hence it was discussed during the proposal of the project and the owner agreed that the system will be used on the new patients and the data migration will be discussed when the application is stable.

# Vision of the Solution

## Vision Statement

ADENICSY will be automating the process of queueing for patients within a day and the storage of patient information, and the process related to it such as inputting additional medical records, adding payment records, etc. This will result in increased efficiency, minimize the risk of data loss, and less physical storage consumed by the records. It will also provide analysis of key metric indicators so that the owner will be able to make data-driven decisions.

## Major Features

Queueing Management – This feature includes changing the doctor’s schedule where the available queueing numbers will be generated, updating the current number so that patients can estimate their time going to the clinic, and updating the queueing list.

Dental Records Management – The software will be a one repository of all the patient’s dental related files. Compared to their old method of storing files like dental procedure history, x ray, teeth pictures in separated storages, dentists can retrieve all the data and search for a patient instantaneously in the software.

Payment Records Management – Payment records will also be easy to access and update as patient’s payment information can be search in the software and the process from getting the payment information going to the staff for payment will be done through the software.

## Assumptions and Dependencies

One of the major dependencies of the software is the requirement of tablet per dentist to where the software will be installed. During the proposal of the project to the owner, the concern was settled as the owner is the one that suggested the tablet and he said that they are willing to invest in it if the software is stable and tested.

Other technological dependency is desktop in the admin side, hosting service, Wi-Fi connection and domain name.

# Scope and Limitations

This study aims to determine the problems in Apelo Dental Clinic’s (ADC) current system and provide possible solutions that will address it.

Scope:

The focus of this project is to lessen the waiting time of the patients of ADC and digitalize the manual processing of patient’s information. This will include features such as user login, inputting of patient information from different users, interactive teeth model, appointment system and SMS notification, search function, payment management, dashboard of key performances and developing a mobile version for patient users. Thus, providing solutions to make a better way of appointment and accessing patient information including how it will go from day-to-day process is the main concern that will be developed in this study.

Limitations:

In the software, inventory management of clinic supplies will not be included that is common in most dental clinic management software that has been developed. Data migration of the clinic’s patient information will also not be handled by the developer.

## Scope of Initial Release

The initial version of software should require the admin login where he can create credentials for his employee, patient login where they can register and login to their account, search button for patient’s dental and payment records. Patients should be able to get a queueing number in their end and see the current number in the clinic, hence, the staff should also be able to update the current number in the clinic so that the software can now help to reduce the waiting time. Notification is also supplemental in reducing the waiting time as it will tell the patient if their number is near so they can be on watch in the current number and estimate their time going to the clinic.

## Scope of Subsequent Releases

Maintenance and continuous improvement will be done through subsequent release. Features that will be included are various methods of uploading a file through the software and the dashboard that will provide insights to the owner regarding the clinic’s Key Performance Indicators KPI.

## Limitations and Exclusions

Inventory Management and tracking of business performance in terms of revenue and cost will not be included in the software.

# Business Context

Apelo Dental Clinic was established in 2001, they accumulate numerous patient because of quality and affordable service. However, their patient’s queueing system makes the waiting time so long and their manual storage of data causes problem like losing the index card where dental procedure and payment information are stored.

## Stakeholder Profiles

Stakeholders of Apelo Dental Clinic are the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stakeholder** | **Major Value** | **Attitudes** | **Major Interests** | **Constraints** |
| Clinic owner | Easier management of the clinic | Customer-centric, innovative and solution provider | The quality of service to be provided to its patient will provide welfare | Limited knowledge on tech innovation that can aid clinic’s problem. |
| Staff | Reduce workloads | Hardworking and attentive to patient’s concern | Less work by not having to retrieve records manually and answering queueing concerns | Needs to be oriented in using a new software system |
| Doctors | Well accessibility and accurate medical records of patient | Working continuously throughout the day, handles various customer | Medical records of patient can be accessed easily, and procedures done, and other doctors note should be legible. | Doctors varies from age so some should be trained on using the tablet-based software. |
| patients | Less waiting time in the clinic | On the go, busy people | Getting number would be easier and waiting in the queue line would be shorter than before. | Must adhere to new policy and be familiar with using an application of the clinic. |

## Operating Environment

ADENICSY will be implemented as a web-based application and the user can access the data that dynamically updates through the internet. When the software is implemented, the storage will also be on the hosting site. The number of patients that will access the current number will not be more than 20 at a time as per our estimation, hence it will still be tolerable in most cases.

When the hosting service will experience system failure, the clinic can still proceed with their day-to-day business as the data will be backed up in their local storage and data transfer will be handled through Wi-Fi even without internet connection and by doing the manual process on some other processes that can’t be bound in the Wi-Fi.