**Project Management Plan**

**Apelo Dental Clinic System (ADENICSY)**

**Apelo Dental Clinic**

**R-203, Apelo Bldg 8271, Dr Arcadio Santos Ave**

**Paranaque City, 1700**

**Date**

**May 2023**

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# Company Profile

|  |  |
| --- | --- |
| **Registered Name** | Apelo Dental Clinic |
| **Address** | R-203, Apelo Bldg. 8271, Dr Arcadio Santos Ave, Parañaque, 1700 Metro Manila |
| **Telephone Number** | (02) 8829 4960 |
| **Email** | denroe2003@gmail.com |
| **Line of Business** | Dental Service Provider |
| **Type of Customers** | Demographically heterogenous (e.g., students, call-center agent, government employees, seafarer, etc.) |
| **Year Established** | 2001 |
| **Chief Executive Officer** | Dr. Denroe Apelo |
| **Number of Employees** | 10-12 |

Table 1: High Level Business Information of Apelo Dental Clinic

Apelo Dental Clinic (ADC) is in Dr Arcadio Santos Ave, Parañaque City, established in 2001. Their mission is to provide quality service with affordable prices, 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. With their mission and vision, they were able to accumulate many patients that keep coming back to the clinic for their service.

# Executive Summary

## Issue

Apelo Dental Clinic currently employs traditional techniques to conduct business operations, including the utilization of index cards for patient data, and writing numbers on paper to schedule appointments. Patients arrive at the clinic as early as 4 in the morning to obtain a queue number, which will give them a better chance of being seen earlier. However, the clinic only commences its operations at 9 in the morning. Since patient information and payment records are both kept on index cards, some records of other patients cannot be found. In each of the processes implemented in Apelo Dental Clinic, patients and clinic staff encounter difficulties or challenges.

## Anticipated Outcome

The project anticipated outcomes of an efficient web application namely Apelo Dental Clinic System (ADENICSY) by the end of June 2023. The implementation will take place within the company's intranet, utilizing the existing records. The proposed system should include 6 major functionalities for account management of patients and employees, queuing management, search function, dental records and payment records management, and dashboard.

The execution of the proposed project will lead to an enhanced user experience at Apelo Dental Clinic by reducing waiting time and preventing the loss of patient data. The need to physically go to the clinic to obtain a queue number and inquire about the current serving number will be eliminated. The digitalization of patient data will enable the Dental Clinic to retrieve patient information quickly and prevent the excessive use of physical space. Additionally, the system will allow patients to access their payment records for services received and view their remaining balance.

## Recommendation

As a solution to the issues that are listed, it is recommended to Apelo Dental Clinic combine all the functionalities. The project can alleviate the main pain points, which are the long waiting time for patients, and the loss of medical records of the patients. It is concluded in our interview with the patients of the clinic that having a poor queuing system is the main pain point of the clinic.

As the team has plans on scaling in the future, it is also high time to transition from a traditional technique to a technology-ready clinic. Old data of the patients that are stored in the index cards will be transferred to each of their accounts, which means there will be fewer manual actions needed from the patient’s end.

## Justification

The Apelo Dental Clinic System is a much-needed solution for dental clinics facing challenges with manual processes, including long waiting times and the risk of losing patient records. Our system provides a digital platform to automate queueing and record-keeping, enabling clinics to increase efficiency, improve patient experience and reduce costs. With our system, patients can easily view their queueing status online, and clinics can maintain accurate and secure patient records without the risk of losing them.

The implementation of the Apelo Dental Clinic System is a worthwhile investment for dental clinics. The system will provide significant benefits, including reducing waiting times and errors, improving patient satisfaction and retention, and increasing the overall productivity of the clinic. By embracing digital technology, clinics can save time and costs, reduce manual errors, and improve the quality of patient care. Ultimately, the Apelo Dental Clinic System can lead to a more streamlined and efficient clinic operation, benefiting both patients and dental practitioners.

## Business Case Analysis Team

Table 1 demonstrates the groups comprising experts who will collaborate to develop the plan, and their specific responsibilities in the project are the following:

|  |  |  |
| --- | --- | --- |
| **Role** | **Description** | **Name** |
| Project Team Leader | Assist in monitoring and guiding the project toward successful completion. | Patricia Anne L. Meltran |
| Project Manager | Oversee the business case and be responsible for executing the project. | Janssen Pedrola |
| Project Team Member | Oversee the project`s process improvement. | Guiler Marion R. Regalado |
| Project Team Member | Provide technical support for the project. | Alfonzo Louise De Vera |
| Project Team Member | Oversee the project`s process improvement. | Earl Eufimeah Dahinao |
| Project Team Member | Supervise the project team’s documentation improvement. | Ivan Emmanuel Flores |
| Executive Sponsor | Provide guidance to the project. | Dr. Denroe Apelo |

Table 2: Business Case Analysis Team

# Business Case

## Problem Definition

### Problem Statement

Apelo Dental Clinic is a company that provides a wide range of dental services to its customers. Usually, they focus on preserving good oral hygiene and avoiding or addressing dental problems. However, Apelo Dental Clinic System (ADENICSY) is a web application that supports day to day operation of Apelo Dental Clinic.

The company employs manual procedures for its daily operations, which involve using paper-based systems for queuing management and index cards to keep track of patient data. This results in a delay of approximately 1 to 4 hours to obtain a number, and patient information retrieval is time-consuming and occupies significant space in the dental clinic. All the current manual procedures are vulnerable to human mistakes and data loss. Despite efforts to maintain a large amount of data, some are still lost, and patients experience excessive waiting times, making it difficult for the company to maintain all the data of their patients and accommodate all the patients in their dental clinic.

### Organizational Impact

The implementation of Apelo Dental Clinic will have a significant impact on the company. By reducing long waiting times in queuing and improving the manual process of recording records, the clinic can redirect its savings toward other important initiatives. This will help drive the overall performance and efficiency of the company.

In addition, the project aims to improve the current process by introducing agility into the system. By eliminating the need for patients to physically obtain numbers for queuing, the process becomes more efficient and saves time for both the patients and the clinic staff. Additionally, the project will address the challenge of storing patient information by reducing the amount of space required for physical storage. With these improvements, the clinic can focus on providing quality healthcare services and enhancing patient experiences. Overall, the project will revolutionize the healthcare sector by creating a seamless and hassle-free process for patients and healthcare providers alike.

### Technology Migration

The system will be developed using HTML, PHP, JavaScript, and SQL to create a web application, as they currently rely on manual processes that involve number cards and index cards. The data migration process will involve the dental clinic staff manually entering the information from the index cards. After the system is developed, it will be implemented through the company's VDI environment.

## Project Overview

### Project Description

The goal of the project is to create a system that will aid in the daily operations of the Apelo Dental Clinic by addressing both patients wait times and data management concerns. As an overview of the system, it includes functionalities that convert the current queuing management process in the dental clinic into a digital format. The system will generate queue numbers and show the number of patients currently being served. Additionally, the system's data management capabilities will efficiently and effectively organize, store, retrieve, and manage large amounts of data.

By developing a comprehensive system that manages daily operations, the efficiency of the dental clinic can be greatly improved. With this new system in place, employees will have an easier time managing patient information, and patients will be able to experience shorter wait times. With the digitalization of patient information, the employees can retrieve the information easier and faster making the transaction with the patient smoothly. Also, the system will include a dashboard that allows the administrator to easily monitor the performance of the clinic.

### Goals and Objectives

The Apelo Dental Clinic System aims to automate queueing and record-keeping processes in dental clinics, improving their operational efficiency. This system addresses the common business problem of long waiting times and manual record-keeping, which can lead to errors, patient dissatisfaction, and loss of revenue. By implementing the system, dental clinics can achieve the following objectives:

* Develop and implement a digital platform for queueing and record-keeping processes in dental clinics.
* Enable patients to view their queueing status online, reducing wait times and enhancing patient experience.
* Secure patient records in a digital database, reducing the risk of manual errors and loss of records.
* Improve operational efficiency by automating manual processes, reducing costs, and increasing revenue.
* Enhance patient satisfaction through improved service quality and reduced wait times.
* Provide user training and ongoing support to ensure effective implementation and adoption of the system.

### Project Performance

The Apelo Dental Clinic System project will be considered successful if it achieves the following performance metrics:

* **Reduction of waiting times:** The system should reduce the average waiting time for patients by at least 20% compared to the previous manual process.
* **Accuracy and security of records:** The system should ensure that all patient records are accurately and securely stored in a digital database, reducing the risk of manual errors and loss of records.
* **Increased operational efficiency:** The system should increase the operational efficiency of dental clinics by reducing the time and resources required for manual queueing and record-keeping processes, resulting in cost savings and increased revenue.
* **Enhanced patient satisfaction:** The system should enhance the overall patient experience by providing a more streamlined and convenient queueing process, resulting in increased patient satisfaction ratings.
* **Effective implementation:** The system should be implemented on time, within budget, and with minimal disruption to the normal operation of dental clinics.
* **User adoption:** The system should be successfully adopted by users, including both clinic staff and patients, with minimal training required.

By meeting these performance metrics, the Apelo Dental Clinic System project will be considered a success, achieving its goals of improving operational efficiency, enhancing patient experience, and supporting the long-term success of dental clinics.

### Project Assumptions

Here are the preliminary assumptions to the proposed system:

* 1. The dental clinics that will implement the system have reliable internet connectivity and appropriate hardware and software to support the digital platform.
  2. The clinic staff and patients are willing to adopt and learn the new system, with minimal resistance to change.
  3. The project team will have access to all necessary information and resources from the dental clinics to effectively design, develop, and implement the system.
  4. The project team has the necessary technical expertise and project management skills to develop and implement the system on time, within budget, and with minimal disruption to the normal operation of dental clinics.
  5. The system will comply with all relevant data privacy and security regulations, ensuring the confidentiality and integrity of patient records.
  6. The system will be scalable to accommodate future growth and changes in the needs of dental clinics.
  7. The system will integrate with existing software and hardware systems used in dental clinics, such as electronic health records and imaging systems, to ensure seamless operation.
  8. The system will provide a user-friendly interface for both clinic staff and patients, requiring minimal training to use effectively.

### Project Constraints

* Budget: The project must be completed within the allocated budget, and any additional costs must be approved by the project sponsor. The project team must prioritize tasks and resources to ensure that the system is developed and implemented within budget constraints.
* Timeline: The project must be completed within the agreed-upon timeline, with milestones and deadlines set and met by the project team. Any delays or changes to the timeline must be approved by the project sponsor, and the project team must take appropriate measures to ensure timely completion of the project.

### Major Project Milestones

To guide the team’s progress in completing the project, the following milestones and deliverables for this project have been identified:

1. Set up a preliminary meeting with Dr. Denroe Apelo, Owner of Apelo Dental Clinic to discuss the initial system requirements and status of the existing technologies by April 26th, 2022.
2. Conduct the analysis phase and present findings to the primary stakeholder by May 7th, 2022.
3. Complete the design phase and present mockup design to the primary stakeholder by June 1st, 2022.
4. Develop the features outlined during analysis and design stages using the resources provided by Apelo Dental Clinic and implement the agreed upon user interface by August 15th, 2022.
5. Achieve a simulated solution which allows no security breaches and complete testing by January 31st, 2022.
6. Conduct a close out meeting and provide hand-off documents to key stake holders before May 26th ,2023.

## Strategic Alignment

If the Apelo Dental Clinic System project is aligned with the strategic goals and objectives of Apelo Dental Clinic, the company can increase the project's value and guarantee its contribution to the efficiency and success of the business.

**Apelo Dental Clinic aims to improve the overall experience for patients.**

The system project's alignment with this goal signifies the company's commitment to providing an exceptional patient experience and staying ahead of the competition. The implementation of the system project is aimed at achieving the goal of increasing the efficiency and effectiveness of the company's processes, which will, in turn, enhance its reputation. By digital queue numbers and the digitalization of patient information, the project will facilitate a seamless patient experience and contribute to the company's competitive advantage in the market.

**Apelo Dental Clinic aims to improve data management and security.**

The system project aligns with this goal by modernizing and streamlining the operation of the dental clinic, which will allow the employees of the clinic to effectively manage the queue numbers and patient data. The project's introduction of cutting-edge technologies and streamlined processes will enable the organization to maintain a competitive edge in a rapidly evolving market. By continuously innovating and adapting to the latest trends and advancements, the project will ensure that the company stays ahead of the curve and is well-positioned for long-term success.

## Cost and Benefit Analysis

The cost-benefit analysis will help determine the potential benefits of the Apelo Dental Clinic System (ADENICSY) project in comparison to the cost incurred. The primary benefit of this project is the optimization of the dental clinic's operational processes, which will result in improved efficiency and effectiveness. ADENICSY will facilitate real-time updates and faster data sharing, resulting in an increase in patient satisfaction.

1. **Benefits**

* Reduced waiting time: The system will reduce the patient’s waiting time, leading to increased patient satisfaction, improved staff productivity, and increased revenue due to the ability to see more patients.
* Improved record-keeping: The system will improve the accuracy and security of patient records, reducing the risk of errors and loss of records.
* Increased operational efficiency: The system will reduce the time and resources required for manual queueing and record-keeping processes, leading to cost savings and increased revenue.
* Enhanced patient experience: The system will provide a more streamlined and convenient queueing process, resulting in increased patient satisfaction ratings and potential for increased patient referrals.
* Competitive advantage: The system will provide a competitive advantage for dental clinics that implement it, as it will improve operational efficiency and enhance the patient experience compared to clinics still using manual processes**.**

1. **Cost**

* Development and implementation costs: The initial cost of developing and implementing the system, including software and hardware, staff training, and any required customization or integration with existing systems.
* Ongoing maintenance costs: The cost of maintaining and updating the system, including software updates, technical support, and ongoing training.
* Operational costs: The cost of operating the system, including internet connectivity and any additional hardware or software required to support the system.

Based on these costs and benefits, it is likely that the Apelo Dental Clinic System project will result in a positive return on investment (ROI) over time. The initial costs of development and implementation will be outweighed by the benefits of increased efficiency, improved patient experience, and potential revenue growth. It is important to continue monitoring and evaluating the system's performance over time to ensure that it continues to provide the expected benefits and to identify areas for improvement.

## Alternative Analysis

**Alternative 1: Maintain Current Manual Processes**

Pros: No initial development or implementation costs; no need for staff training or hardware and software upgrades.

Cons: Manual processes are time-consuming, prone to errors, and can result in long wait times and loss of records, leading to decreased patient satisfaction, revenue loss, and increased costs due to inefficiencies.

**Alternative 2: Implement a Third-Party Digital Queueing and Record-Keeping System**

Pros: No need for internal development or implementation, reduced operational costs, potential for increased efficiency and patient satisfaction.

Cons: Lack of customization, potential for compatibility issues with existing systems, lack of control over updates and maintenance, potential for data privacy and security concerns.

**Alternative 3: Develop and Implement an In-House Digital Queueing and Record-Keeping System**

Pros: Customizable to the specific needs and processes of the dental clinics, greater control over updates and maintenance, potential for increased efficiency and patient satisfaction.

Cons: Higher initial development and implementation costs, potential for delays or technical issues during development and implementation, ongoing maintenance costs, potential for data privacy and security concerns.

Based on this analysis, it appears that Alternative 3, developing and implementing an in-house digital queueing and record-keeping system, is the best option for the Apelo Dental Clinic System project. While there are higher upfront costs and potential risks, this option provides greater customization and control over the system, ensuring it is tailored to the specific needs and processes of the dental clinics. Additionally, it can provide a competitive advantage and potential for revenue growth over time.

# Project Charter

## Project Purpose/ Justification

### Business Need

This project will help the Apelo Dental Clinic (ADC) to have a dental clinic management system that will allow then to reduce the waiting time of the customer through appointment system, store patient information in digital format that will make retrieval and related processes easier, and track performance of the clinic that will help them in optimizing it. Hence, this project will benefit the following:

* **Dentist** – Storing and navigating medical history and other patient information will be easier which can improve the quality and time of making a diagnosis.
* **Front desk staff** - The project will reduce their time spent on data administration, processing, and management, allowing them to focus on other scopes of their work and respond to other issues that may arise.
* **Accounting staff**- Recording of payment and generating sales report can be done in easily a supported by the system.
* **Patients** – Waiting time will be reduced and records do not have to be filled out multiple times when they get lost. They will also be able to see their payment records and balance or credits.
* **Future Developers** - This project will help future developers since it may be used as a reference for any related projects.

1. Business Objectives

The business objectives for this project are in direct support of the clinics’ strategic plan to increase efficiency, accommodate a certain number of patients per day, and make records accessible by storing it digitally.

* Design a program that would give doctors and patients an appointment schedule for better accommodation and relieve doctors of extra workload.
* Implement the program and files digitally for accessibility purposes and to reduce the risk of files being damaged or to lessen the physical space it consumes.
* View the daily and weekly insight of the clinic.

## Project Description

The ADENICSY project will provide efficiency regarding patient treatment and scheduling and accessibility for records like x-rays, dental records, and payment. This will also result in reducing the risk of data loss or physical damage and reduce the physical storage consumed by the files. This software will be developed in code using a computer so that the application will be accessed digitally through a mobile phone, a computer, and even a tablet, and of course, with secure control and different options for its users and staff.

### Project Objectives

The main objective of this project is to develop a website/ system for Apelo Dental Clinic that will improve their business processes. Thus, the developer wants to achieve the following:

* Aim to make the waiting time from 4 hours to 1 hour.
* Provide a search function that will show the recent medical information of a certain patient.
* Make the appointment slot available a month ahead and provide insights via dashboard about monthly visitation date of the patients, active patients, and other key indicators.

### Success Criteria

To achieve success on this project, the following objectives must be met within the designated time and budget allocations:

* The new system is adopted and used by the CREST team with at least a 90% satisfaction rate.
* The patients are satisfied with the wait time, operation time, and transactions with the clinic.
* The clinic or management must be able to get feedback insights from their patients from the system to provide data driven actions.
* The management should be able to monitor the clinics’ performance to keep track of problems and prevent further occurrences regarding their operations.

### Requirements

This project must meet the following list of requirements to achieve success.

* The solution must be tested and reviewed by the client to ensure that the program is safe, secure, and used properly
* Solution must be implemented without disruption to operations

Additional requirements may be added as necessary, with project sponsor approval, as the project moves forward.

### Constraints

The following constraints pertain to the ADENICSY project:

* All hardware and software must be compatible with our current IT (Information Technology) platforms.
* The inventory management of clinic supplies will not be included.
* Data migration of patient information will not be handled by the developers.

### Assumptions

The following is a list of assumptions. Upon agreement and signature of this document, all parties acknowledge that these assumptions are true and correct:

* This project has the full support of the project sponsor, stakeholders, and all departments
* The purpose of this project will be communicated throughout the company prior to deployment
* The IT manager will provide additional resources if necessary

### Preliminary Scope Statement

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 patient information from different users, visual teeth model, appointment system and SMS notification. Thus, providing solutions to make a better way of appointment and accessing patient information, including how it will go from daily process, is the main concern developed in this study.

## Risks

The following risks for the ADENICSY project have been identified. The project manager will determine and employ the necessary risk mitigation/avoidance strategies as appropriate to minimize the likelihood of these risks:

* Disruption of operations during solution deployment and data migration
* External threats breaching security via new methods

## Project Key Deliverables

The following deliverables must be made upon the successful completion of the ADENICSY project. Any changes to these deliverables must be approved by the project sponsor.

* At least 60% working prototype of the proposed website/application
* Recommendation list for future improvements

## Summary Milestone Schedule

The project Summary Milestone Schedule is presented below. As requirements are more clearly defined this schedule may be modified. Any changes will be communicated through project status meetings by the project manager.

|  |  |
| --- | --- |
| **Project Milestone** | **Target Completion Date** |
| Project kick-off meeting | March 30, 2023 |
| Analysis phase completion | December 05, 2022 |
| Design phase completion | December 12, 2022 |
| Implementation phase completion | January 12, 2023 |
| Testing and quality assurance phase completion | January 24, 2023 |
| Deployment phase completion | February 14, 2023 |
| Project close-out meeting | May 31, 2023 |

Table 3: Summary Milestone Schedule

## Summary Budget

Figure 1: Summary Budget

## Project Approval Requirements

Success for the ADENICSY project will be achieved when there is at least a 60% working system that is tested and acceptable for the clinic and the client. With 60% working system, the client will be supplied with a recommendation list to be able to finish or improve the submitted system both for the system and potential security threats. Success will be determined by the client who will test and authorize the project's completion.

## Project Manager

Janssen Pedrola is named Project Manager for the ADENICSY project. Mr. Pedrola’s responsibility is to manage all project tasks, scheduling, and communication regarding the ADENICSY project. His team consists of his peers from school. Mr. Pedrola will coordinate with the client regarding the project they have requested. Mr. Pedrola is authorized to approve all budget expenditures up to, and including, the allocated budget amounts. Mr. Pedrola will provide weekly updates to the Project Sponsor and client.

# Project Management Approach

The Project Sponsor has complete authority to approve plans for execution and any necessary adjustments thereto. On the other hand, it is the Project Manager's duty to oversee and carry out this project in accordance with this Project Plan. Personnel from the administrative, product development, and quality assurance groups will make up the project team.

# Project Technical Approach

The technical approach for the Apelo Dental Clinic Management System (ADENICSY) project is based on a careful examination of the project's requirements and limitations. In order to provide a high-quality product on schedule and in accordance with the client's expectations, our team will adhere to a systematic and agile product development methodology.

## Product Development Methodology

Agile and conventional project management frameworks are combined in our approach to product management. We'll use agile techniques like Scrum to enable rapid iterations and ongoing stakeholder feedback. The project will be delivered on schedule and within budget by using conventional project management techniques, such as Waterfall, at the same time. The steps in the methodology are as follows:

* Project Initiation
* Planning
* Execution
* Monitoring and Controlling
* Closure

To make sure the project is on track and satisfies the client's needs, we will maintain constant contact with the client throughout the whole product development life cycle. To make the product simple to use and intuitive, we will also give priority to user experience and design.

## 6.2 Technical Architecture

The ADENICSY project will be built using a modern, cloud-based technical architecture that is designed for scalability, security, and performance. Our team will utilize microservices architecture to allow for modular and flexible development. The system will be hosted on a secure and reliable cloud platform, ensuring that it is accessible from anywhere in the world. We will also use best-in-class security measures to protect the system from cyber threats and unauthorized access.

The ADENICSY project's technical architecture is built to guarantee the application's effectiveness, dependability, and security. The architecture is built on a client-server approach, with an application server acting as the server and a web browser as the client. The technical design will feature a variety of security measures to guarantee the application's security. These will include secure coding practices, data encryption, user identification and authorization, and data transfer security.

The technical architecture will also be created to be scalable in order to support development and growth in the future. Load balancers, clustering, and other scaling strategies will be used to achieve this. Overall, the technical architecture of the ADENICSY project will guarantee the application's reliability, security, and scalability and will lay a strong groundwork for the project's successful completion.

# Project Management Plans

## Stakeholders Strategy Management Plan

### Introduction

The goal of the stakeholder management strategy for the project is to effectively engage and manage the expectations of all stakeholders throughout the project life cycle. This includes identifying and analyzing stakeholder needs and interests, developing a communication plan to keep stakeholders informed and engaged, and managing stakeholder expectations to ensure that the project delivers value and meets the needs of all stakeholders.

In addition, this stakeholder management plan for Apelo Dental Clinic Management System (ADENICSY) will ensure that the needs and expectations of all stakeholders are considered and balanced in the design and operation of the system. This includes ensuring that the system is effective and efficient in meeting the needs of its users, as well as being responsive to the concerns and feedback of stakeholders such as the owner, the dentists, the staffs, and the Patients. The objectives of this strategy are to:

* Identify all key stakeholders and their level of interest in the project.
* Analyze the needs and expectations of each stakeholder group.
* Develop a communication plan to keep stakeholders informed and engaged throughout the project.
* Identify and manage potential conflicts or competing objectives among stakeholders.
* Ensure that the project delivers value and meets the needs of all stakeholders.
* Establish a system for ongoing stakeholder engagement and feedback to monitor and
* evaluate the effectiveness of the stakeholder management plan and ensure that the project remains aligned with stakeholder needs and expectations.
* Involving the stakeholders in the planning and decision–making process to help ensure that the concerns of the stakeholders are all considered.

Some potential strategies for a ADENICSY to have better stakeholder management could include:

* **Improving communication and transparency:** It can help improve communication between different stakeholders, such as dentists, patients, and staffs providing one repository for information reducing the chance of illegible records and patients can see their account transactions anytime and verifying their payments real-time.
* **Increasing efficiency:** The clinic currently uses an index card to record their patient records that are stored in a tray. ADENICSY can omit the use of index cards, also removing the need for retrieval of index cards which sometimes get lost.
* **Improving customer experience:** Patients will be able to get their queueing number in ADENICSY, eliminating the need to go to the clinic early in the morning and go back when their queuing number is near. They will also be able to track the current number in the clinic in real-time allowing them to estimate their arrival in the clinic, reducing the waiting time to get operated.

**Enhancing decision-making:** ADENICSY provides dashboard to the owner insights from the clinic’s operation data such as the number of customers that has served throughout the day, how much is the doctor to patient ratio, how long is the handling time of a certain procedure, which day of the month does a peak in patient occurs and more. This will enable the owner to have a better understanding of what’s happening in the clinic and aid him in better decision-making.

### Identify Stakeholders

The goal of the Stakeholder Management Strategy for the ADENICSY project is to ensure that all stakeholders are identified, their interests and influence on the project are understood, and their needs and expectations are effectively managed. In other words, the aim of the stakeholder management strategy for ADENICSY is to identify and engage with all individuals or groups that have a personal stake in the project and will be impacted by its implementation or success. To achieve this, the project team will follow a structured methodology to identify stakeholders. This will involve conducting interviews with key personnel, reviewing relevant documents and data sources, and engaging with various stakeholders through focus groups and other consultation processes.

To identify its stakeholders, a structured method can be used which involves:

● Identifying all potential stakeholders through a stakeholder analysis. This includes. identifying internal stakeholders (such as employees and management) and external

stakeholders (such as customers, suppliers, and regulatory bodies).

● Prioritizing stakeholders based on their level of influence, power, and impact on the

project. This will help determine how much time and resources should be allocated. towards engaging with each stakeholder.

● Developing a stakeholder engagement plan to outline how each stakeholder will be

engaged and communicated with throughout the project.

● Maintaining ongoing communication with stakeholders to ensure that their needs and

concerns are addressed and that the project stays on track.

Stakeholders will be defined as any individuals or groups who have an interest in or are impacted by the project, such as employees, customers (Technicians and Managers), Management team, and/or other organizational team members. The project team will use a stakeholder analysis tool to categorize stakeholders based on their level of interest and influence and will develop tailored communication and engagement plans for each stakeholder group. This will help to ensure that all stakeholders are kept informed about the project's progress and are able to provide input and feedback as needed. By effectively managing stakeholders, the project team can build support for the project, address any concerns or issues that may arise, and increase the chances of project success.

### Key Stakeholders

The key stakeholders in this ADENICSY are the patients, the dentists, the staff, and the owner. These individuals will be directly impacted by the project as they are the primary users of the system. As such, it is important to ensure that their needs and concerns are properly addressed during the development of the system.

In addition, the project sponsor and project manager have also been identified as key stakeholders as they will be responsible for ensuring the successful delivery of the project. It

is essential to involve these stakeholders in the decision-making process and ensure that their input is taken into consideration throughout the project.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NAME | POSITION | INTERNAL/  EXTERNAL | PROJECT ROLE | CONTACT INFORMATION |
| Denroe Apelo | Owner of Apelo Dental Clinic | Internal | Project Sponsor | [denroe2003@gmail.com](mailto:denroe2003@gmail.com) |
| ADC Dentists | ADC Dentists | Internal | Internal User of the System |  |
| ADC Staff | ADC Staff | Internal | External User of the System |  |
| ADC Patients | ADC Patients | External | External User of the System |  |
| Janssen Pedrola | Student at Asia Pacific College | External | Project Manager | jtpedrola@student.apc.edu.ph |

Table 4: Key Stakeholders

### Stakeholder Analysis

Conducting a stakeholder analysis is a crucial element of the stakeholder management plan for ADENICSY. It involves identifying and evaluating all individuals or groups that have a vested interest in the project and will be impacted by its implementation or success. By conducting a stakeholder analysis, the project team can determine who the key stakeholders are, their level of influence and power, and their potential impact on the project. This information is crucial for developing an effective stakeholder management strategy, as it helps the project team to prioritize the stakeholders and determine how best to engage and communicate with them throughout the project. The table below outlines the stakeholders for the project, indicating those who have a high or low level of interest and power in the development process.

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | POWER/  INTEREST | CURRENT  ENGAGEMENT | POTENTIAL MANAGEMENT STRATEGIES |
| Denroe Apelo | High | Supportive | Dr. Denroe collaborates well and is very hopeful for the implementation of the project as he put first his patient’s welfare in his clinic. Inform him at least 3 days ahead to set a meeting as he is a busy person. |
| ADC Dentists | Low | Neutral | Dr. Denroe can recommend a Dentist anytime if there’s a need for interaction with one. Dentists there will tell the team to ask Dr. Denroe first before the engaged with you with the project. |
| ADC Staffs | Low | Neutral | The staff are always occupied, especially during peak days in the clinic, but they are responsive when they are not busy. Hence, the team should set a meeting during non-peak days in the clinic. |
| ADC Patients | Low | Neutral | There are always patients in the clinic, but they have varied traits and characteristics given their demographics too. It’s better to get insights from various patients in different groups to get a rich insight about the clinic. |
| Janssen Pedrola | Low | Supportive | He is the project manager who oversees the progress of the project. He encourages collaboration in the team especially that they are all students, so it is important to be engaged and participative during discussions. |

Table 5: Stakeholder Analysis

Table

Description automatically generated with low confidence

Figure 2: Stakeholders Power and Interest Chart

## Scope Management Plan

### 7.2.1. Introduction

The scope management plan for the Apelo Dental Clinic System outline the best practice and cutting-edge that will be used to define, document, and control the scope of the project. By leveraging agile methodologies and real-time collaboration tools, the project team will be able to deliver an innovative Apelo Dental Clinic System that meets the needs of all stakeholders.

**Scope Definition:** The scope of the Apelo Dental Clinic System will be defined through the following activities:

1. **Requirements gathering:** The project team managing the project will employ a range of methods to acquire and document the system's requirements. These methods may involve conducting interviews with users, facilitating group discussions, and administering surveys online.
2. **User Stories:** The project team will create user stories to describe the functionality of the system from the perspective of the end user. These stories will be prioritized based on business value and will be used to guide the development process.
3. **Scope statement:** The scope statement will be created using the user stories and requirements as input. It will provide a high-level overview of the project scope, including the deliverables, exclusions, and constraints.
4. **Scope baseline:** The scope baseline will be created by incorporating the scope statement and the user stories into a project management plan. It will be regularly updated as the project progresses to reflect changes in scope.

**Scope Documentation:** The scope of the Apelo Dental Clinic System will be documented in the following ways:

1. **Requirements documentation:** The requirements for the system will be documented in a requirements specification document.
2. **Project management plan:** The plan for project management will contain details regarding the scope of the project, such as the scope statement, scope baseline, and any other pertinent information.
3. **Change log:** There will be a log to keep track of any alterations made to the project's scope. This change log will document the change description, its effects on the project, and the necessary approvals.

**Scope Control:** The scope of the Apelo Dental Clinic System will be controlled through the following activities:

1. **Scope verification:** The project team will employ agile testing methods to ensure that the project's deliverables conform to the requirements and are in accordance with the scope statement.
2. **Scope change control:** Any changes to the scope of the project will be managed through a formal change control process, which will include an assessment of the impact on the project schedule, budget, and quality.
3. **Scope change review:** A scope change review will be held for each change request to ensure that the change is necessary, feasible, and aligned with the project objectives.

### 7.2.2. Scope Management Approach

1. Authority and responsibility for scope management will be held by the Project Manager, Jansen Pedrola, who will work closely with the Project Sponsor, Dr. Denroe Apelo, and other key stakeholders to define and manage the scope of the project.

1. To determine the scope of the project, a Scope Statement, Work Breakdown Structure (WBS), WBS Dictionary, and a comprehensive Statement of Work (SOW) will be developed. These documents will precisely specify the project's objectives, activities, and prerequisites, and will undergo evaluation and endorsement by the project sponsor and other involved parties prior to commencing the work.

1. The project's extent will be evaluated and confirmed using quality checklists, measurements of work performance, and regular monitoring of the project's advancement in relation to the original scope. If there are any discrepancies from the initial scope, they will be identified and dealt with using the scope change process.

1. The Apelo Dental Clinic project's procedure for modifying its scope will entail the Project Manager submitting a request for scope change, which will then be approved by the project sponsor. It is crucial to thoroughly assess any alterations to the project's scope to ensure that they are consistent with the project's objectives and do not have a detrimental impact on the project schedule or budget.

1. The project manager will ensure that all project requirements are met and that the project sponsor and other important stakeholders approve and accept the final project deliverables. The project will be considered successfully completed only after all deliverables have been accepted and any remaining issues have been addressed.

### 7.2.3. Roles and Responsibilities

The following roles and responsibilities have been designated regarding the management of the project's scope:

1. **Project Manager:** The project manager oversees outlining and documenting the project's scope, as well as regulating and approving any alterations to the scope.
2. **Project Team:** The project team is accountable for validating the project's scope and initiating modification requests if it is necessary.
3. **Stakeholders:** The stakeholder oversees offering insights on the project's requirements and scope, and authorizing scope modifications as required.

### 7.2.4. Scope Definition

The scope of this project includes developing a single system that combines multiple functionalities for the different user that Apelo Dental Clinic have. The system will consist of functionalities such as managing the queue to facilitate patients in obtaining a number more conveniently, accessing and securely storing patient information, and a dashboard to keep track of the clinic's overall progress. With the integration of these features, the system will streamline the clinic's operations and provide a better experience for patients, making it an essential tool for Apelo Dental Clinic's daily activities.

The system will incorporate a dentists’ schedule, which will regulate the display of the maximum number of appointments available for daily operations.

### 7.2.5. Project Scope Statement

The project scope statement for the Apelo Dental Clinic System project will detail the project`s deliverables and the work necessary to create these deliverables.

**Product Scope Description:**

The Apelo Dental Clinic System is a web-based application that enables employees of the clinic to handle patient details such as personal information, medical records, and payment records, as well as oversee the queuing system digitally. This system is designed to safeguard information against losing or mishandling patient details, while also enhancing the patient experience by streamlining the appointment scheduling process. The system will consist of features such as a dentist calendar to provide visibility into the availability of the numbers on a given day, as well as a dashboard to assist the administrator in monitoring the clinic's overall performance.

**Product Acceptance Criteria:**

The Apelo Dental Clinic System will be considered complete and accepted by the customer when it meets the following criteria:

1. Every feature and capability indicated in the project's scope statement has been created and assessed using the test scenarios established by the Quality Assurance Associate.
2. The system has been successfully deployed in Apelo Dental Clinic.
3. Users have given positive feedback on the system during the UAT (User Acceptance Testing) phase.
4. Comprehensive documentation has been prepared for the system, and user manuals have been produced.

**Project Deliverables:**

The following list of deliverables will be provided upon successful completion of the project:

1. Fully functioning Apelo Dental Clinic System
2. User Manual and training materials
3. Technical documentation
4. Providing additional outputs as outlined in the Project Scope Statement and approved by the Project Sponsor.

**Project Exclusions:**

The following tasks are beyond the scope of this project and will not be included:

1. The project scope statement does not mention the inclusion of past patient information into the system.
2. Customization or modification of the system beyond the scope specified in the project scope statement.

**Project Constraints:**

The following limitations will affect the project:

1. Limited budget
2. Resistance to change
3. User Training
4. Limited skills

**Project Assumptions:**

The following assumptions have been made regarding this project:

1. The dental clinics that will implement the system have reliable internet connectivity and appropriate hardware and software to support the digital platform.
2. The clinic staff and patients are willing to adopt and learn the new system, with minimal resistance to change.
3. The project team will have access to all necessary information and resources from the dental clinics to effectively design, develop, and implement the system.
4. The project team has the necessary technical expertise and project management skills to develop and implement the system on time, within budget, and with minimal disruption to the normal operation of dental clinics.
5. The system will comply with all relevant data privacy and security regulations, ensuring the confidentiality and integrity of patient records.
6. The system will be scalable to accommodate future growth and changes in the needs of dental clinics.
7. The system will integrate with existing software and hardware systems used in dental clinics, such as electronic health records and imaging systems, to ensure seamless operation.
8. The system will provide a user-friendly interface for both clinic staff and patients, requiring minimal training to use effectively.

### 7.2.6. Work Breakdown Structure

The Work Breakdown Structure (WBS) is a way of organizing a project by breaking it down into smaller, more manageable parts, and arranged in a hierarchy. The WBS is made up of multiple levels that provide increasingly detailed views of the project. The WBS Dictionary is a supplemental document that accompanies the WBS and provides comprehensive information about each component in the WBS, including details on the scope of work, deliverables, and responsibilities.

The project team intends to utilize the WBS and WBS Dictionary to divide the project's scope into more manageable components, and to designate responsibility for each component. This approach will ensure that all aspects of the project are considered, and that team members understand their part in delivering the project. The WBS and WBS Dictionary will serve as a guide to track progress, address problems, and make certain that the project stays on course and within the scope. In general, the WBS and WBS Dictionary are crucial tools for managing the project scope and ensuring its successful completion.

**Task:**

1. **Apelo Dental Clinic System**
2. Initiation

1. Evaluation & Recommendations

1. Develop Project Charter
2. *Deliverable:* Submit Project Charter
3. Project Sponsor Reviews Project Charter
4. Project Charter Signed/Approved
5. Planning
6. Create Preliminary Scope Statement
7. Determine Project Team
8. Project Team Kickoff Meeting
9. Develop Project Plan
10. Submit Project Plan
11. *Milestone:* Project Plan Approval
12. Execution
13. Project Kickoff Meeting
14. Verify & Validate User Requirements
15. Design System
16. Procure Hardware/Software
17. Install Development System
18. Testing Phase
19. Install Live System
20. User Training
21. Go Live
22. Control
23. Project Management
24. Project Status Meetings
25. Risk Management
26. Update Project Management Plan
27. Closeout
28. Audit Procurement
29. Document Lessons Learned
30. Update Files/Records
31. Gain Formal Acceptance
32. Archive Files/Documents
33. User Training
34. Post User Support

### 7.2.7. Scope Verification

To ensure that the deliverables from the Apelo Dental Clinic System project meet the original scope, the project team will utilize a variety of methods for scope verification. These methods may include:

* **Quality checklist:**

The project team will rely on checklists to ensure that each deliverable meets the required standards before proceeding. These checklists will contain detailed specifications for each deliverable, outlining the specific criteria that must be met for it to be considered acceptable.

* **Work performance measurements:**

By closely monitoring the development of each deliverable, the project team can ensure that they are staying on track and meeting their objectives. This proactive approach enables the team to catch any problems early on, minimizing the risk of delays or cost overruns and ensuring a successful outcome for the project.

* **Scope baseline:**

It is crucial for the project team to maintain a scope baseline, which captures the project's original scope. Any modifications to the scope must be formally documented and approved before they are implemented. The scope baseline serves as a reference point to ensure that the final deliverables align with the initial project scope.

* **Formal acceptance:**

When a project team completes a deliverable, it is crucial to get formal acceptance from the project sponsor, customer, and other stakeholders. This helps ensure that everyone's expectations are being met and allows for any necessary adjustments to be made promptly, avoiding potential delays and misunderstandings down the line.

Overall, it is important that the project team maintains consistent communication and collaboration with the customer and other stakeholders throughout the project to ensure that the deliverables meet the original scope and are formally accepted.

### 7.2.8. Scope Control

As part of the project management process, the project's scope must be carefully controlled to ensure that it remains aligned with the original project objectives. The Project Manager will lead the effort to monitor and evaluate the project's deliverables and progress against the Project Scope Statement. Any deviations from the scope will be thoroughly examined and assessed to determine if changes are necessary. If changes are required, the established scope change process will be followed, with proper documentation and approval procedures in place. The project team and stakeholders will work closely with the Project Manager to ensure that the scope remains within the defined boundaries. Regular reviews will be conducted to assess progress and identify any areas where scope changes may be necessary. The Project Manager will be responsible for communicating any scope changes to all affected parties, ensuring that everyone is aware of any potential impact on the project's timeline or budget.

The scope control process for the Apelo Dental Clinic System project will involve the following steps in making changes to the scope baseline:

1. A scope change request will be initiated by any stakeholder or team member who identifies a need for a change to the scope.
2. The Project Manager and the Project Sponsor will evaluate the effect of the proposed modifications on the project's schedule, budget, and resources by reviewing the scope change request.
3. The Project Manager has the authority to approve or reject change requests that are considered to have minimal impact or significant impact. However, if the change request is classified as low impact and the Project Manager approves or denies it, the Project Sponsor has the option to review and overturn their decision.
4. Assuming the request gets approved, the Project Manager will devise a course of action to implement the change, amend the scope baseline, and inform all the pertinent stakeholders about the change.
5. If the request is rejected, the project team will continue with the original scope.

To guarantee the project remains within budget and on schedule, it's crucial to establish a structured protocol for modifying the scope baseline. Any modifications to the scope must be scrutinized and authorized with care to prevent scope creep and maintain project progress.

## Cost Management Plan

### Introduction

The Cost Management Plan for the Apelo Dental Clinic System (ADENICSY) project is designed to ensure that all costs associated with the project are effectively managed throughout its lifecycle. The plan outlines the format and standards by which the project costs will be measured, reported, and controlled.

Cost management responsibilities:

* The Project Manager will be responsible for overall cost management of the project and will be the primary point of contact for all cost-related issues.
* The Finance Team will be responsible for monitoring project costs and ensuring that they are within the approved budget.

Cost change approval:

* All cost changes must be approved by the Project Manager before they are implemented.
* If the cost change exceeds 10% of the total project budget, it must be approved by the Project Sponsor before it can be implemented.

Cost measurement and reporting:

* Costs will be measured and reported on a monthly basis, using a cost performance index (CPI) and a schedule performance index (SPI)
* Reports will be presented to the Project Sponsor on a monthly basis.

Budget format and standards:

* The budget will be presented in a clear and concise format, using a spreadsheet format such as Excel.
* The budget will be broken down into individual line items, with detailed cost estimates for each item.
* The budget will be updated on a monthly basis, with any changes clearly highlighted.

Overall, the Cost Management Plan for ADENICSY project is designed to ensure that all costs associated with the project are effectively managed and controlled, so that the project can be completed within the approved budget. This will help ensure that the project is completed successfully and on time.

### Cost Management Approach

The cost management approach for the dispatch directory system project will be based on the following principles:

1. Clear definition of costs:
   * The project team will work closely with stakeholders to clearly define and document the costs associated with the project, including labor, materials, equipment, and other expenses.
2. Budget development and tracking:
   * A detailed project budget will be developed and regularly updated throughout the project, with costs tracked and reported in real time.
3. Cost estimates:
   * The project team will use a variety of cost estimation techniques to ensure that the project budget is accurate and realistic.
4. Cost variance analysis:
   * The project team will closely monitor costs throughout the project and perform variance analysis to identify and address any cost overruns or savings.
5. Cost management roles and responsibilities:
   * Clear roles and responsibilities for cost management will be defined and communicated to all project team members.
6. Approval process for changes:
   * A formal process for approving changes to the project or its budget will be established and implemented.
7. Reporting and communication:
   * Regular cost reports will be prepared and shared with stakeholders, including the project sponsor, project team, and management.

By following these principles and practices, the project team will be able to effectively manage costs and ensure that the project stays on budget.

### Measuring Project Costs

The Cost Management Plan for ADENICSY project will include a detailed approach for measuring project costs using Earned Value Management (EVM). This will involve capturing and reporting on various Earned Value metrics, such as:

1. Budgeted Cost of Work Scheduled (BCWS) or Planned Value (PV) - This measures the budgeted costs of the work that was planned to be completed at a specific point in time.

Example:

To calculate the BCWS or Planned Value, we need to multiply the total labor cost of the TESTING WBS by its percentage of completion:

BCWS = Total labor cost of TESTING WBS x Percentage of completion

= (PHP 300,000) x 33.71%

= PHP 101,130

Therefore, the Budgeted Cost of Work Scheduled (BCWS) or Planned Value (PV) for the TESTING WBS is **PHP 101,130**.

1. Budgeted Cost of Work Performed (BCWP) or Earned Value (EV) - This measures the budgeted costs of the work that has actually been completed at a specific point in time.

Example:

To calculate the Budgeted Cost of Work Performed (BCWP) or Earned Value (EV), we need to know the percentage of work completed for each task or WBS element. Assuming that the percentage of completion for each of the Testing

Phase tasks are as follows:

Week 26: Testing Phase 1 - 100%

Week 27: Testing Phase 2 - 75%

Week 28: Testing Phase 3 - 50%

Week 29: Testing Phase 4 - 25%

Then, we can calculate the Budgeted Cost of Work Performed (BCWP) or Earned Value (EV) as follows:

EV = BCWS x % of work completed

EV = (₱300,000 x 33.71%) + (₱75,000 x 8.43% x 0.75) + (₱75,000 x 8.43% x 0.50) + (₱75,000 x 8.43% x 0.25)

EV = ₱101,130 + ₱4,732.50 + ₱3,155 + ₱1,577.50

EV = ₱110,595

Therefore, the Budgeted Cost of Work Performed (BCWP) or Earned Value (EV) is ₱110,595.

1. Actual Cost of Work Performed (ACWP) or Actual Cost (AC) - This measures the actual costs incurred for the work that has been completed at a specific point in time.

Example:

Assuming that the Actual Cost for the TESTING WBS is PHP 120,000, then:

AC = PHP 120,000

Therefore, the Actual Cost of Work Performed (ACWP) or Actual Cost (AC) is

**PHP 120,000**.

These metrics will be used to perform cost variance analysis (CV), schedule performance index (SPI), and cost performance index (CPI) to measure the project's cost performance over time.

To assist in capturing these metrics, the project team will use project management software that is capable of tracking and reporting on EVM metrics. This software will also be used to forecast future project costs, and to review cost performance over time, across work packages or schedule activities.

1. Cost Variance (CV) measures the difference between the actual cost and the planned cost of the project. It is calculated by subtracting the actual cost from the planned cost. A negative CV indicates that the project is over budget, while a positive CV indicates that the project is under budget.

Example:

To compute the Cost Variance (CV), we need to subtract the Actual Cost of Work Performed (ACWP) or Actual Cost (AC) from the Budgeted Cost of Work Performed (BCWP) or Earned Value (EV). From the previous example, the BCWP or EV is ₱110,595, and the ACWP or AC is ₱120,000.

CV = EV - AC

CV = ₱110,595 - ₱120,000

CV = -₱9,405

**Therefore, the Cost Variance (CV) for the Testing WBS is -₱9,405. A negative CV means that the project is over budget.**

1. Schedule Performance Index (SPI) measures the project's schedule performance by comparing the planned schedule to the actual schedule. This index is calculated as the ratio of the BCWP to the BCWS. It is calculated by dividing the earned value by the planned value. A value of 1 indicates that the project is on schedule, while a value less than 1 indicates that the project is behind schedule, and a value greater than 1 indicates that the project is ahead of schedule.

Example:

From the previous computations, we have:

Earned Value (EV) = ₱110,595

Planned Value (PV) = ₱101,130

Plugging these values into the formula, we get:

SPI = EV / PV

SPI = ₱110,595 / ₱101,130

SPI = 1.093

Therefore, the Schedule Performance Index (SPI) is 1.093. This indicates that the project is ahead of schedule, as the SPI is greater than 1.

1. Cost Performance Index (CPI) measures the project's cost performance by comparing the actual cost to the planned cost. This index is calculated as the ratio of the BCWP to the ACWP. It is calculated by dividing the earned value by the actual cost. A value of 1 indicates that the project is on budget, while a value less than 1 indicates that the project is over budget, and a value greater than 1 indicates that the project is under budget.

Example:

To calculate the Cost Performance Index (CPI), we need to use the following formula:

CPI = EV / AC

where:

EV = Earned Value (BCWP)

AC = Actual Cost (ACWP)

From the previous computations, we have:

EV = ₱110,595

AC = ₱120,000

CPI = EV / AC

CPI = ₱110,595 / ₱120,000

CPI = 0.9216

Therefore, the Cost Performance Index (CPI) is 0.9216. This means that for every one peso spent, the project has earned only 0.92 pesos of value. This indicates that the project is behind budget and may need to take corrective actions to bring the costs in line with the planned budget.

In summary, the Cost Management Plan will ensure that the project costs are effectively managed and controlled throughout the project’s lifecycle by using Earned Value Management

metrics, schedule performance index, and cost performance index. These metrics will help the team to identify the areas where the project is underperforming and take corrective actions to bring the project back on track.

### Reporting Format

The ideal reporting format for the cost management plan of the Dispatch Directory system project would likely be a detailed spreadsheet or table. This format should include all relevant cost information such as project budget, actual costs incurred, projected costs, and any variances or discrepancies.

Additionally, the format should be easily understandable and accessible to all stakeholders, including the project team, stakeholders, and management. A bar chart or Gantt chart can also be included to provide a visual representation of the cost information. The reporting format for the cost management plan of the Dispatch Directory system project would include the following elements:

1. Executive Summary:

A brief overview of the cost management plan, including the project's overall budget, any major cost variances or issues, and any actions taken to address them.

1. Budget Overview:

A detailed breakdown of the project's budget, including the total project cost, the cost of each phase or deliverable, and the costs associated with each project resource (e.g., labor, materials, equipment, etc.).

1. Cost Variance Analysis:

A detailed analysis of any variances between the project's actual costs and the budgeted costs. This should include a detailed explanation of the causes of the variances, the impact on the project, and any actions taken to address them.

1. Budget Forecast:

A projection of the project's future costs, including any potential cost variances and their potential impact on the project.

1. Cost Management Metrics:

A set of key performance indicators (KPIs) that provide a snapshot of the project's cost performance, including cost variance, cost performance index (CPI), and schedule performance index (SPI).

1. Approval and Sign-off:

A section for the project manager and other key stakeholders to review, approve, and sign off on the cost management plan.

1. Appendices:

Any additional documentation or supporting materials, such as detailed cost breakdowns, invoices, or change request forms.

It is important to note that this is a general outline, and the reporting format may vary depending on the specific needs of the project and organization. However, it should provide a comprehensive overview of the project's cost management and performance in order to make informed decisions.

### Cost Variance Response Process

The Cost Variance Response process for ADENICSY project will be as follows:

1. Control Thresholds:
   * The project will have several control thresholds set for cost variance.
   * These thresholds will be set at 5%, 10%, and 15% of the total project budget.
   * If the project triggers any of these thresholds, it will be considered a cost variance.
2. Identification of Variance:
   * The Project Manager will be responsible for identifying any cost variances and reporting them to the Project Sponsor.
   * The Project Manager will use the Earned Value Metrics and other cost management tools to identify and track any variances.
3. Analysis of Variance:
   * The Project Manager will analyze the variance to determine the root cause of the problem and develop options for corrective action.
   * The Project Manager will also consider the impact of the variance on the project schedule and scope.
4. Presentation of Options:
   * The Project Manager will present the options for corrective action to the Project Sponsor.
   * The options will be based on the root cause of the variance and the impact on the project schedule and scope.
5. Approval of Corrective Action:
   * The Project Sponsor will review the options and approve an appropriate action to bring the project back on budget.
   * This may include increasing the budget, reducing scope or quality, or implementing other corrective actions.
6. Implementation of Corrective Action:
   * The Project Manager will implement the approved corrective action and monitor the results.
   * The Project Manager will also update the project schedule and budget accordingly.
7. Reporting:
   * The Project Manager will report the cost variance, corrective action taken, and the results of the corrective action in the Monthly Project Status Report.
   * The Project Manager will also provide updates on the project budget and schedule.

The Cost Variance Response process will be an ongoing process throughout the project lifecycle. The Project Manager will be responsible for monitoring and controlling the project costs, and the Project Sponsor will be responsible for approving any corrective actions as needed.

### Cost Change Control Process

The cost change control process will include the following steps:

1. Identification of the cost change:

* Any proposed changes to the project budget or costs must be identified and documented in a cost change request form.

1. Analysis of the cost change:

* The proposed change will be analyzed by the project team to determine the potential impact on the project schedule, resources, and overall budget.

1. Approval of the cost change:

* The cost change request will be reviewed and approved by the project sponsor and other relevant stakeholders.

1. Implementation of the cost change:

* Once approved, the cost change will be implemented in accordance with the project schedule and budget.

1. Tracking and monitoring of the cost change:

* The project team will track and monitor the impact of the cost change on the project schedule and budget, and any necessary adjustments will be made to ensure the project stays on track.

1. Reporting on the cost change:

* The cost change will be reported in the monthly project status report, along with any relevant financial information and any corrective actions taken.

The cost change control process will be implemented to ensure that any changes to the project budget or costs are identified, analyzed, and approved in a timely manner. This will help to minimize the impact of cost changes on the project schedule and budget and help to ensure that the project stays on track to meet its objectives.

### Project Budget

Budgeting is a crucial component of project management that involves planning, estimating, and controlling project costs. For the Dispatch Directory System project, a budget has been developed to ensure that project costs are identified, monitored, and controlled throughout the project's life cycle.

The budget includes direct and indirect costs, and it is designed to provide the project team and stakeholders with a comprehensive understanding of the financial resources required to successfully complete the project. This budget will serve as a baseline for monitoring the project's financial performance and ensuring that it remains on track to meet its goals and objectives within the approved budget.

Approved Budget: PHP 900,000.00

|  |  |  |
| --- | --- | --- |
|  | **Duration /Frequency and Trigger** | **Total Cost in PHP** |
| **Direct Costs** | | |
| Manpower Cost | 9 months | 513,000.00 |
| Maintenance Cost | 1, *on-call* | 15,500.00 |
| Contingency Cost | 9 months | 117,000.00 |
| **Total Project Cost** | *for 9 months with 1 maintenance* | **645,000.00** |
| **Miscellaneous** | | |
| Equipment | Bought once | 203,000.00 |
| Subscription | Once yearly | 6,000.00 |
| **Total Miscellaneous Cost** | *for the first year* | **209,000.00** |

Table 6: Summarized Budget

## Schedule Management Plan

### Introduction

The Schedule Management Plan is crucial because it provides direction and information in this area and specifies how the project's schedule will be handled throughout the entire project. After evaluating, managing, and prioritizing all time-related schedule alterations, the schedule management plan specifies strategies and tactics and distributes them.

### Schedule Management Approach

The project team and the resources assigned to it will cautiously work on the initial schedule once it has been produced in order to prevent the project's schedule from being in the critical path. The proposed work package task, the length of the activities, and the project timeline require the approval of the project team and assets. Once this has been completed, the project adviser will check, approve, and baseline the schedule.

|  |  |
| --- | --- |
| **Milestone** | **Timeline** |
| Project Charter | 1st Month |
| Project Approval | 2nd Month |
| Developing the Web Application | 3rd to 7th Month |
| Complete Test Plan | 8th Month |
| Finalizing the  Document | 9th Month |

Table 7: Schedule Management Approach Milestone

When such changes are made, the plans and baselines will be updated. Furthermore, the same are shown as outputs. The scheduling approach, method of evaluation, tools, management, and control of the schedule will all be impacted by the development strategy.

The following are the roles and responsibilities involved in developing a schedule:

|  |  |
| --- | --- |
| **Role** | **Responsibility** |
| Project Client | · Approves Scope Management Plan.  · Provides high-level scope definition (Project Charter).  · Reviews escalated scope issues and provide direction for resolution.  · Approves major scope change requests.  · Overall decision-making responsibility for Scope Management activities. |
| Project Manager | · Overall responsibility for scope management.  · Oversees the development of the Scope Management Plan.  · Oversees the scope change management process.  · Approves scope change requests within his/her authority.  · Escalates scope and change issues.  · Ensures that scope changes are incorporated into appropriate project documents |
| Project Team Members and Subject Matter Experts (SMEs) | · Help develop the project scope statement.  · Submit scope change requests.  · Review Scope Change requests when assigned.  · Provide feedback as and when required.  · Participate in team-level scope change reviews. |
| Independent Verification and Validation (IV&V)  Project Adviser | · Provides an ongoing independent review and analysis of project scope management practices.  · Monitors scope changes and provide feedback.  · Approves major scope change requests.  · Approval of all documentation throughout the project. |
| Stakeholders | · Key providers of requirements, scope, and the recipients of project deliverables associated with the project benefits. Most of the project deliverables will be based on their operations in the business and enhancing their business operations and environment. |

Table 8: Roles and Responsibilities in Developing a Schedule

### Schedule Control

For the duration of the project, the schedule must be precisely and effectively managed. Meetings, schedules, project updates, and even changes to the project schedule go through the project manager, who is also responsible for managing them. The project manager will also be responsible for informing and keeping the project client informed of the project's status.

The project team, on the other hand, is required to attend meetings for any schedule updates provided and work on any timetable adjustments that would be made. The percentage of completion must be presented to the project team for discussion by project team members who also complete a task.

### Schedule Changes and Thresholds

When the project team creates the schedule, the project sponsor must specify a deadline for the project to be finished or operational. This is essential because it enables the project sponsor to align the objectives and expectations of the project client with the project at hand. One of the factors that could affect the changes in schedule is poor schedule management, which requires an extension or change in the project plan. If there are any circumstances that might potentially affect the timetable and go beyond the limits specified by the project sponsor, the project manager should submit a schedule change request and it should be approved by the project sponsor before the schedule change is made.

If any of the following apply, a schedule change request must be submitted to the project stakeholder for approval, if not, then submission is made for approval to the project manager:

* The suggested change is to limit the length of deliverables of a given Sprint Backlog during the project's development phase, to make it obvious that adding something to the duration does not indicate extending the work across the full duration.
* Changes to the scope statement must be taken into consideration in order to prevent conflicts during the project's documentation phase. The project team must compile every mistake in the document before expanding the work packages by 5% or more to reflect the changes in all the documentation.
* A different way to implement the changes is to either cut or extend the project's overall timetable by 10% or more.

### Scope Change

If a project problem arises that requires a substantial change in the project scope, it is best to propose a change. It is necessary to use prudence during the process of suggesting and evaluating the project's scope adjustment. Any project team member or project client may ask to change the project's scope. All change requests must be submitted in the form of a project change request document to the project advisor. Following that, the project manager will go over the requested change to the project's scope. The project adviser will either reject the request for change if it does not fit in with the project's goals or schedule a meeting with the project client and project team to discuss it and determine its impact. Following initial approval from the project client and project adviser, the project manager will communicate the scope change to the entire project team. In result of that, the team members will amend any applicable paperwork, deliverables, and product backlogs.

## Staffing Management Plan

### Introduction

A strong human resource management strategy is critical to the success of any project. It acts as a template for how the project team will be managed and structured, and it assists in ensuring that the appropriate people with the right qualifications are in the right place at the right time. Roles and duties, communication protocols, and performance management measures are all part of the strategy.

Using this plan, the project manager and project team can effectively manage the project by ensuring that all team members understand their roles and responsibilities, that communication is open and effective, and that performance is monitored and managed in a way that contributes to the project's overall success.

### Roles and Responsibilities

An effective human resources management plan is crucial for the successful completion of any project. It outlines the roles and responsibilities of all project team members and stakeholders, ensuring that everyone is aware of their individual contributions and how they fit into the bigger picture.

The plan also defines the level of authority and decision-making power held by each team member, ensuring that resources are allocated and utilized effectively. By clearly defining competencies and skill requirements, the plan ensures that the right people are in the right roles to achieve project success.

Overall, the human resources management plan acts as a roadmap for the project team, guiding them towards successful project execution and delivery.

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Authority** | **Responsibility** | **Competency** |
| Project Sponsor | Approves the project's business case and budget. Provides strategic direction & resources.  Helps to secure stakeholder buyin. Resolves major issues and conflicts. Can allocate project resources and approve changes to project scope, schedule, and budget that has high impact. | Ensures that the project is aligned with the organization's strategic goals and objectives, and that it delivers the expected benefits and value. Provide high-level oversight and guidance to the project manager. Secure resources and support from key stakeholders. Help to communicate project progress and benefits to the organization. | Strong leadership and strategic thinking skills Ability to communicate effectively with a wide range of stakeholders. Deep understanding of the organization's mission, goals, and values. Ability to secure resources and support for the project. |
| Project Manager | Full decisionmaking authority on the project. Can allocate project resources and approve changes to project scope, schedule, and budget that has low impact. | Oversee the entire project, including project planning, execution, monitoring, control, and closeout. Ensure project objectives are met on time, within budget, and to the required quality standards. | Strong leadership, communication, and project management skills. Experience in managing complex projects. |
| Internal User of the System  (ADC Dentists and Staffs) | Utilizes the system as designed to complete work activities. Provides feedback on system usability, functionality, and performance. | Complete work activities using the system as designed. Ensure data accuracy and completeness. Report system issues and problems to the project team. Provide feedback on system usability, functionality, and performance. | Understanding of the work processes and activities for which the system is being used. Knowledge of the data and information required to complete assigned work activities. Basic computer skills, including proficiency in the use of the system. |
| External User of the System  (ADC Patients) | Accesses and uses the system to receive and respond to service requests. Updates service request statuses. Closes out completed service requests. | Review and respond to service requests in a timely manner. Maintain accurate and update information on service request statuses. Communicate with internal stakeholders as needed to complete service requests. Close out completed service requests. | Knowledge of the tools, equipment, and methods required to complete service requests. Ability to diagnose and troubleshoot technical issues. Understanding of the importance of maintaining accurate and up-to-date information in the system. |

Table 9: Staffing Management Roles and Responsibilities

### Project Organizational Charts

Project organizational chart of Apelo Dental Clinic System (ADENICSY) provides a visual representation of the project team and the relationships between the key stakeholders. The project sponsor is typically at the top of the chart, followed by the project manager who is responsible for managing the project's resources, scope, and schedule. An internal user of the system, such as the ADC Dentists and Staffs, may also be included to provide input on the system requirements and participate in user testing. An external users of the system (ADC Patients) may also be included to provide feedback on the system's usability and functionality. The organizational chart helps to clarify the roles and responsibilities of each stakeholder, ensuring that everyone is aligned with the project's goals and objectives.

A diagram of a company

Description automatically generated with low confidence

Table 10: Project Organization Chart

### Staffing Management

The Staffing Management Plan for Apelo Dental Clinic System (ADENICSY) project is a critical component in ensuring the successful execution of the project. It outlines the strategies and processes for acquiring, managing, and releasing human resources throughout the project lifecycle.

* Acquisition of human resources will be done in a timely manner to ensure that the necessary skills and expertise are in place when needed. This may include recruiting new hires, hiring contractors, or utilizing internal staff. The timeline for resource acquisition will be aligned with the project schedule to ensure that resources are available when needed.
* Training for any resources with identified gaps in skills required will be provided to ensure that they have the necessary knowledge and capabilities to perform their roles effectively. This may include both on-the-job training and formal training programs.
* Performance reviews will be conducted regularly to assess the performance of team members and identify areas for improvement. These reviews will also provide feedback on how well team members are meeting the project's expectations and objectives.
* A rewards and recognition system will be implemented to acknowledge and motivate outstanding performance. This may include bonuses, promotions, and other incentives.

It is important to note that depending on the scope of the project, there may be other items included in staffing management such as government and/or regulatory compliance, organizational health, and safety, etc. It depends on the specific requirements and regulations of the industry and the location in which ADENICSY is being implemented. Government and regulatory compliance may be a consideration if the project is subject to specific laws and regulations related to data privacy and security. Organizational health and safety may also be a consideration if the project involves the use of equipment or technology that poses a potential risk to team members.

The Staffing Management Plan will be regularly reviewed and updated as necessary to ensure that it remains aligned with the project's objectives and requirements. It is important for the project manager to conduct a thorough analysis of the project's specific requirements and regulations to determine if any additional items need to be included in the staffing management plan.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role** | **Project Responsibility** | **Skills Required** | **Number of Staff** | **Performance Reviews** | **Recognition and Rewards** |
| Project Manager | Plan, execute, and close projects effectively and efficiently.  Ensure the project meets the objectives and goals.  Manage project risks and issues.  Coordinate with stakeholders and team members. | Leadership  Communication  Problem-solving  Time management  Technical skills related to the project | Depends on the scope and complexity of the project.  Determined in collaboration with other stakeholders | The project manager will conduct regular performance reviews with team members to assess their progress, provide feedback, and address any issues. | The project manager will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Project Team Leader | Lead a project team and ensure the project is delivered on time, within budget, and to the required quality standards.  Define project objectives and develop a detailed project plan.  Monitor and manage project risks, issues, and dependencies.  Communicate project progress and status to stakeholders and senior management.  Manage project scope, budget, and resources | Leadership  Communication  Planning and organizing  Risk management  Budget management  Technical skills related to the project | Depends on the scope and complexity of the project. Determined in collaboration with other stakeholders. | The project leader will work with team members to set achievable performance goals and track their progress throughout the project. | The project leader will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Project Team Member | Collaborate with other team members to achieve project goals.  Complete tasks assigned by the project leader or manager.  Report progress and status to the project leader or manager.  Participate in project meetings and contribute to discussions.  Manage their time and work effectively to ensure project tasks are completed on time and within budget. | Technical skills related to the project.  Communication  Collaboration and teamwork  Problem-solving  Time management | Depends on  the scope and  complexity of  the project.  Determined in  collaboration  with other  stakeholders | The frequency and format of performance reviews will be determined based on the project's needs and the company's policies. | The project leader or manager will implement a recognition and rewards system to motivate team members and encourage high performance. |
| Executive Sponsor | Provide strategic direction and leadership for the project.  Ensure the project is aligned with the organization's goals and vision.  Allocate resources and secure funding for the project. Act as the primary point of contact between the project team and senior management  Monitor project progress and provide guidance and support to the project team | Leadership  Strategic thinking  Communication  Decision-making  Risk management  Budget management | The executive sponsor is typically a high-level executive or member of the board of directors. May be supported by a project management office or other support staff. | The executive sponsor may conduct performance reviews of the project leader or manager to ensure they are meeting the organization's standards and goals for the project. They may also receive updates and progress reports from the project leader or manager | The executive sponsor may recognize and reward the project team for their achievements and progress towards the project's goals. They may also provide opportunities for career growth and development for the project team members, as well as for the project leader or manager. |

Table 11: Staffing Management Plan Summary Table for Staff Management Analysis

## Change Management Plan

### 7.6.1. Introduction

The Change Management plan was created for the ADENICSY project to set and meet goals on how the clinic would change regarding appointments and storage. All stakeholders are expected to submit or request changes to the ADENICSY project in accordance with this Change Management Plan and all requests and submissions will follow the process detailed herein.

### 7.6.2. Change Control Board

The ADENICSY Change Control Board is the approval authority for all proposed change requests pertaining to the IS Project. The purpose of ADENICSY is to review all change requests, determine their impacts on the project risk, scope, cost, and schedule, and to approve or deny each change request. The following chart provides a list of the CCB (Change Control Board) members for the IS Project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Change Control Board Role** | **Role** | **Name** | **Contact** | **Responsibilities** |
| **Change Control Board Chair** | Project  Sponsor | **Dr. Denroe Apelo** |  | Project Sponsors can help to ensure that the project accomplishes its goals and adds value to the organization by supervising it, resolving problems, talking to stakeholders, offering support, and celebrating success. |
| **Change Control Board Member** | Project Leader/Manager | **Janssen Pedrola** | [jtpedrola@student.apc.edu.ph](mailto:jtpedrola@student.apc.edu.ph) | The project manager oversees defining ADENICSY’s project scope and goal. The Project Leader/Manager oversees developing or implementing new software, launching a new product, or completely overhauling an organization's marketing plan. |
| **Change Control Board Member** | Project Operations Lead | **Alfonzo Louise De Vera** | [abdevera@student.apc.edu.ph](mailto:abdevera@student.apc.edu.ph) | The operation lead oversees developing any project execution strategies and overseeing the project's operational performance by keeping track of the project's progress. |
| **Change Control Board Member** | Project Technical Lead | **Guiler Marion Regalado** | [grregalado@student.apc.edu.ph](mailto:grregalado@student.apc.edu.ph) | Determines ADENICSY’s project requirements and develops work schedules for the team. Identifying risks and forming contingency plans as soon as possible. Analyzing the existing operations and meeting to discuss improvements. |
| **Change Control Board Member** | Project Documentations Lead | **Patricia Anne Meltran** | [plmeltran@student.apc.edu.ph](mailto:plmeltran@student.apc.edu.ph) | Documentation lead is responsible for identifying and suggesting improvements after assessing the effectiveness and efficiency of the current document management systems and practices. |
| **Change Control Board Member** | Project Operations Lead | **Earl Eufimeah Dahinao** | [etdahinao@student.apc.edu.ph](mailto:etdahinao@student.apc.edu.ph) | The operation lead oversees developing any project execution strategies and overseeing the project's operational performance by keeping track of the project's progress. |
| **Change Control Board Member** | Project Technical Lead | **Ivan Emmanuel Flores** | [ilflores@student.apc.edu.ph](mailto:ilflores@student.apc.edu.ph) | Determines ADENICSY’s project requirements and develops work schedules for the team. Identifying risks and forming contingency plans as soon as possible. Analyzing the existing operations and meeting to discuss improvements. |

Table 12: Change Control Board and Responsibilities

### 7.6.3. Roles and Responsibilities

The table below shows the respective responsibilities of each project member in the change management process.

|  |  |  |
| --- | --- | --- |
| **Name** | **Project Role** | **Responsibilities** |
| **Dr. Denroe Apelo** | **Project**  **Sponsor** | Project Sponsors can help to ensure that the project accomplishes its goals and adds value to the organization by supervising it, resolving problems, talking to stakeholders, offering support, and celebrating success. |
| **Janssen**  **Pedrola** | **Project Leader/Manager** | The project manager  Oversees defining ADENICSY’s project scope and goal. The Project Leader/Manager oversees developing or implementing new software, launching a new product, or completely overhauling an organization's marketing plan. |
| **Alfonzo Louise De Vera** | **Project Operations Lead** | The operation lead oversees developing any project execution strategies and overseeing the project's operational performance by keeping track of the project's progress. |
| **Guiler Marion**  **Regalado** | **Project Technical Lead** | Determines ADENICSY’s project requirements and develops work schedules for the team. Identifying risks and forming contingency plans as soon as possible. Analyzing the existing operations and meeting to discuss improvements. |
| **Patricia Anne Meltran** | **Project Documentations Lead** | Documentation lead is responsible for identifying and suggesting improvements after assessing the effectiveness and efficiency of the current document management systems and practices. |
| **Earl Eufimeah**  **Dahinao** | **Project Operations Lead** | The operation lead oversees developing any project execution strategies and overseeing the project's operational performance by keeping track of the project's progress. |
| **Ivan Emmanuel**  **Flores** | **Project Technical Lead** | Determines ADENICSY’s project requirements and develops work schedules for the team. Identifying risks and forming contingency plans as soon as possible. Analyzing the existing operations and meeting to discuss improvements. |

Table 13: Change Management Plan Roles and Responsibilities

### 7.6.4. Change Control Process

Apelo Dental Clinic System would like to provide the utmost care for patients who want to achieve their desired procedure for their dental health. And is responsible for achieving the patients’ demand. ADENICSY’s change protocol process guarantees that, in accordance with accountability protocols, each change proposed during an initiative is properly specified, examined, and approved before execution. The change control process promotes the effective use of resources and helps prevent unneeded modifications that could influence delivery in terms of time, budget, and quality.

The following steps below are the ADENICSY’s change control process:

Figure 3: Change Control Process

|  |  |  |
| --- | --- | --- |
| **Process Step** | **Description** | **Change Log Status** |
| **Proposing a Change** | ADENICSY’s project leader oversees submitting a Change Request Form. At this point, organizational process inefficiencies, technological improvements, and changing client needs all point to the need for change. | **Submitted** |
| **Change Request Evaluation** | The second step involves evaluating the change request to determine its effect on company operations, resource requirements, and budgeting. This step also includes risk assessment and any behavioral adjustments necessary for the change to be successful. If the change is authorized, the procedure then advances to the following stage. If it is denied, the reasons are logged and shared with the customer and stakeholders. | **Submitted** |
| **Decision** | The third step of a change endeavor involves thorough preparation. Building a clear and simple strategy that includes dates, resources, pilot testing, and how to lessen the impact of change | **Submitted** |
| **Implementing**  **a Change** | In this step, to accommodate the change, update the strategy and obtain resources. | **Submitted** |
| **Closing a Change Request** | In this last step of ADENICSY’s change control process. Review all the implemented changes and update the change log. Once the document is signed for closure, the process will be finalized. | **Submitted** |

Table 14: Change Control Process Definition

## Communications Management Plan

### 7.7.1. Introduction

The Communications Management Plan is a critical component of the Apelo Dental Clinic System project as it outlines the communication strategy and protocols for the project team and stakeholders. The plan defines the following:

1. The plan outlines what kind of information will be conveyed, such as updates on the project's status, progress reports, potential hazards, and challenges. Additionally, it determines the degree of intricacy and structure of the information, whether it will be presented verbally or in written format.
2. The plan outlines the methods of communication that will be used, such as online or physical meetings, email, telephone, text messages, etc. This ensures that all stakeholders are informed promptly.
3. The plan establishes how often the project communications, both formal and informal, will occur to maintain regular and consistent updates for the stakeholders.
4. The plan clarifies the communication-related roles and responsibilities of both team members and stakeholders, including who is accountable for distributing project-related information.
5. The plan outlines the specific communication needs of all stakeholders and how they will be met, such as language requirements and accessibility.
6. The plan outlines the resources allocated for communication, such as budget and personnel, to ensure that communication is effective and efficient.
7. The plan outlines the procedures for communicating confidential or sensitive information, specifying the individuals responsible for authorizing the disclosure of such information.
8. The plan defines a process for managing changes in communication or the communication process, including how changes are proposed, reviewed, and approved. This ensures that all stakeholders are aware of any changes and that the communication process remains consistent throughout the project.
9. The plan describes the direction of communication within the project, detailing how information is exchanged among team members, stakeholders, and other partners involved in the project. This promotes the timely sharing of information and ensures that all stakeholders are kept informed.
10. The plan recognizes any limitations, whether internal or external, that may impact project communications, such as legal or regulatory obligations, and establishes how these limitations will be resolved.
11. The plan specifies the required standard templates, formats, or documents for conveying project-related information, such as meeting minutes or progress reports. This guarantees that all stakeholders are furnished with reliable and uniform information.
12. The plan incorporates an escalation mechanism for resolving any conflicts or issues related to communication that might arise during the project. This promotes the prompt identification and resolution of communication-related problems.

Overall, the Communications Management Plan is a key tool that helps to ensure that all stakeholders are informed, and that communication is effective and efficient throughout the Apelo Dental Clinic System project.

### 7.7.2. Communications Management Approach

The optimal communication management approach for the Apelo Dental Clinic System project would be a combination of proactive and reactive strategies.

Proactively, the project team will conduct regular project status meetings to keep all stakeholders informed about the project's progress. The project manager will hold frequent meetings with the team to communicate updates, progress reports, risks, and issues to provide stakeholders with an overview of the project's status and potential roadblocks. Additionally, a project website and web portal will be established to facilitate stakeholders' access to project information, including meeting minutes, documents, and project status reports.

Reactively, a straightforward and brief escalation process will be implemented to handle any conflicts or issues that arise concerning communication. The project manager will be easily accessible to stakeholders to address any questions or concerns they may have and offer assistance and direction when necessary.

Furthermore, a process for managing changes in communication or the communication process will be introduced. This process will guarantee that any alterations are sanctioned by the Change Control Board and that stakeholders are notified of any modifications without delay.

In summary, this method guarantees that both the project team and stakeholders are well-informed and that any communication-related problems are addressed promptly and successfully.

### 7.7.3. Communications Management Constraints

The Communications Management Constraints for the Apelo Dental Clinic System project are a crucial aspect of the overall project management plan. These constraints help to define the limitations and boundaries that may impact the communication processes and strategies of the project. By identifying and addressing these constraints, the project team can proactively develop solutions to mitigate potential challenges and ensure the smooth flow of information throughout the project.

This section of the Communications Management Plan will provide an overview of the key constraints that may impact the project's communication processes, including internal and external factors, technological limitations, and regulatory requirements.

Communications management constraints for the Apelo Dental Clinic System project may include:

1. **Limited budget for communication equipment and resources:** The project may have a limited budget for communication tools and resources, such as video conferencing software, project management software, or hiring a dedicated communications team.
2. **Limited availability of team members:** The availability of team members for communication may be limited due to their other commitments or responsibilities.
3. **Language barriers:** In case team members or stakeholders communicate in different languages, there might be a requirement for translation services or additional resources to enable communication.
4. **Confidentiality:** Some information related to the project may be confidential and require special handling and communication protocols.
5. **Resistance to change:** Introducing new communication strategies can be challenging due to resistance from some stakeholders who may be unwilling to adopt changes in communication processes or tools.
6. **Technical difficulties:** Technical difficulties with communication tools and systems can also be a constraint.
7. **Time constraints:** Scheduling and conducting regular communication meetings can be challenging if the project is operating under a stringent timeline.

### Stakeholder Communication Requirements

The Stakeholder Communication Requirements are a vital component of the Apelo Dental Clinic System project as they outline the specific communication needs of all stakeholders involved in the project. Effective communication is essential for ensuring that the project is completed on time, within budget, and to the satisfaction of all stakeholders. By identifying and addressing the communication requirements of stakeholders, the project team can proactively manage expectations, build trust, and foster collaboration.

This section of the Communications Management Plan outlines the specific communication needs of stakeholders and how they will be met throughout the project's lifecycle.

The Apelo Dental Clinic System project would probably require stakeholder communication needs such as:

1. **Regular project updates:** It is necessary to keep all stakeholders informed about the project's advancement, which includes notifying them of any problems or risks that may emerge.
2. **Clear and concise communication:** Project-related information must be communicated clearly and concisely to ensure that stakeholders comprehend the message.
3. **Accessibility:** Communication needs to be accessible to all stakeholders, considering any language or accessibility requirements they may have.
4. **Timely communication:** Information should be communicated promptly, ensuring that stakeholders are informed as soon as possible.
5. **Confidentiality:** Sensitive or confidential information must be communicated only to the relevant stakeholders and managed securely.
6. **Customized communication:** Communication should be customized to meet the specific requirements of each stakeholder, considering their level of involvement in the project and their role.
7. **Two-way communication:** Communication should involve both parties, enabling stakeholders to provide feedback and ask questions.

**Feedback mechanisms:** There should be a system in place for stakeholders to offer feedback on the communication process, to ensure its effectiveness.

### Roles

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Project Sponsor | A high-level executive who provides financial resources and strategic direction for the project. |
| Project Manager | The person is responsible for planning, executing, and closing the Apelo Dental Clinic System. The project manager leads the project team and ensures that the system is completed on time, within budget, and to the required quality standards. |
| Program Manager | The individual in charge of supervising the Apelo Dental Clinic System and ensuring that it corresponds with the organization's broader goals and objectives. The program manager is responsible for monitoring several interrelated projects within the organization. |
| Key Stakeholders | Individuals or groups who have a vested interest in the Apelo Dental Clinic System, such as dentists, clinic employees, and patients who rely on the system for their daily operations. |
| Development Team | A person is responsible for the technical aspects of the Apelo Dental Clinic System, such as the system architecture, database design, and software development. The team ensures that the system meets the required technical specifications and standards and that it is scalable, secure, and reliable. |

Table 15: Communications Management Plan Roles and Responsibilities

### Project Team Directory

The following table presents contact information for all persons identified in this communications management plan. The email addresses and phone numbers in this table will be used to communicate with these people.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Position** | **Internal/External** | **Project Role** | **Contact Information** |
| Dr. Denroe Apelo | Manager of Operation | Internal | Project Sponsor | denroe2003@gmail.com |
| Progmatiks | Team Members  of  Operations | Internal | Internal User  of the system | - |
| Jayvee Cabardo | Project Adviser | External | Project  Manager | jayveec@apc.edu.ph |
| Alfonzo Louise De Vera | Junior Developer | Internal | Development  Team | abdevera@student.apc.edu.ph |
| Guiler Marion Regalado | Senior Developer | Internal | Development  Team | grregalado@student.apc.edu.ph |
| Patricia Anne Meltra | Quality  Assurance  Analyst | Internal | Development  Team | ptmeltran@student.apc.edu.ph |

Table 16: Project Team Directory

### Communication Methods and Technologies

The successful implementation of the Apelo Dental Clinic System project relies on having a comprehensive grasp of the different communication methods and technologies that will be utilized to establish effective communication with all involved parties. It is crucial to consider the unique strengths and limitations of each communication method and technology to guarantee that all stakeholders receive the necessary information promptly and efficiently. This encompasses selecting suitable approaches for delivering project updates, progress reports, risks, issues, and any other pertinent details.

Additionally, it is crucial to consider the affordability and practicality of employing various technologies, while also addressing any potential security or privacy issues that may emerge. By meticulously choosing the most suitable communication methods and technologies, the project team can guarantee that all stakeholders are adequately informed and that the project's communication goals are achieved.

When determining the best communication methods and technologies for the Apelo Dental Clinic System project, several factors should be considered. These include:

* **The size and complexity of the project:** When dealing with extensive and intricate projects, web portals and project management software are often the most favorable choice, as they facilitate the consolidation of information and provide convenient access for all stakeholders.
* **The level of technical expertise of stakeholders:** For stakeholders who lack technical expertise, straightforward communication methods like email and telephone may be the optimal choice.
* **The type of information being communicated:** When dealing with sensitive or confidential information, it may be essential to utilize secure methods such as encryption and portals protected by passwords.
* **The budget and resources available:** The selection of communication methods and technologies should align with the project's allocated budget and available resources.

Considering these considerations, it is advisable for the Apelo Dental Clinic System project to employ a blend of communication methods and technologies, such as project management software, email, telephone, and video conferencing. This approach will effectively keep all stakeholders informed and enable the project to achieve its communication goals.

### Communications Matrix

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Channel** | **From** | **To** | **Type** | **Frequency** | **Format Used** | **Delivery Media** |
| Project Planning | Project Manager | Stakeholders | Meeting | Once Before  the start of  the project | Formal | Physical Meeting |
| Release Planning | Project  Manager,  Project  Team | Stakeholders | Meeting | Once before  start of the  project  Updated  when  necessary | Formal | Microsoft Teams, Email |
| Sprint Planning | Project Manager | Project Team | Meeting | Twice a week | Informal | Microsoft Teams |
| Management Processes | Project  Manager,  Project  Team | Stakeholders | Artifact | Once Before  start of the  project  Updated  when  necessary | Written Document | Microsoft Teams, Email |
| Product Backlog | Project Manager | Project Team | Artifact | Once every week | Written Document | Microsoft Teams |
| Project Update | Project Manager | Project Team | Meeting | Once every week | Informal | Microsoft Teams |

Table 17: Communications Matrix

### Guidelines for Meetings

Meetings play a vital role in facilitating effective communication within any project, and the Apelo Dental Clinic System project is no exception. To ensure that meetings are productive, efficient, and successful, it is crucial to establish clear meeting guidelines. These guidelines should encompass the purpose of the meetings, the roles and responsibilities of the participants, and the procedures to be followed during the meetings. By having well-defined meeting guidelines in place, both project team members and stakeholders can be better prepared and actively engage in the discussions. Moreover, the project manager can maintain consistency and organization throughout the meetings, thus minimizing confusion and misunderstandings.

Below are the meeting guidelines for Apelo Dental Clinic System project:

* **Purpose:** Meetings are an essential part of the Apelo Dental Clinic System project and are used to discuss project progress, resolve issues, and make decisions.
* **Scheduling:** It is important to plan meetings ahead of time and select a time that is suitable for all participants. The project manager bears the responsibility of coordinating meeting schedules and distributing invitations.
* **Attendance:** Unless there is a valid reason, it is expected that all project team members and stakeholders participate in meetings. If a team member cannot attend, they should promptly notify the project manager.
* **Agenda:** To ensure preparedness and maintain focus during the meeting, it is essential to distribute an agenda beforehand. The agenda should outline the topics to be discussed and the anticipated meeting outcomes. By sharing the agenda in advance, attendees will have the necessary information and the meeting can stay on schedule.
* **Minutes:** During the meeting, it is crucial to record minutes, which should be shared with all participants within 24 hours. These minutes should encompass a concise overview of the discussions held, the decisions reached, and the assigned action items.
* **Decisions:** Whenever feasible, decisions should be reached through consensus. In situations where a consensus cannot be reached, the project sponsor holds exclusive authority to make the final decision.
* **Follow-up:** The project manager is responsible for following up on action items and ensuring that they are completed on time.
* **Communication:** Meetings serve as a platform to communicate project progress and tackle any issues that arise. Attendees should be motivated to express themselves openly and honestly.
* **Technology:** Meetings should be held using technology that is accessible to all attendees. This may include video conferencing, teleconferencing, or web conferencing.
* **Time management:** It is important for meetings to commence and conclude punctually, adhering to the designated time frame. This practice ensures that attendees are not kept waiting and helps to maintain the project's schedule.
* **Evaluation:** Regular evaluations of meetings should be conducted to verify their productivity and gauge attendee satisfaction with the outcomes. Any concerns or issues that arise should be addressed and necessary improvements should be implemented.

### Communication Standards

The best communication standards for the Apelo Dental Clinic System project may include the following:

* **Standardized Templates:** By creating and utilizing standardized templates for project communications, such as status reports, meeting agendas, and minutes, consistency and clarity can be ensured in the information being conveyed.
* **File Naming Convention:** Establishing a standardized file naming convention for project documents and shared files can facilitate convenient access and organization of information.
* **Web Portal/Network Tool:** By utilizing a standardized platform, such as SharePoint or project management software, for project communication, the accessibility to information and collaboration among team members and stakeholders can be enhanced.
* **Video conferencing:** Video conferencing tools such as Google Meets, Zoom, Skype, and others can prove highly beneficial for team members and stakeholders who are geographically dispersed. These tools enable effective communication and collaboration regardless of the participants' physical locations.
* **Communication protocols:** Implementing a standardized communication protocol specifically designed for handling sensitive or confidential information, including clear guidelines on authorized individuals responsible for sharing such information and the appropriate methods of sharing, can guarantee the safeguarding of sensitive data.

### Communication Escalation Process

The ideal and best communication escalation process for the Apelo Dental Clinic System project would involve the following steps:

1. **Identify the issue:** The project team should first identify the communication-related issue that needs to be escalated.
2. **Attempt to resolve the issue within the team:** The project team should initially strive to address the issue internally by engaging in discussions with the relevant team members and attempting to find a resolution.
3. **Involve a communication manager:** If the team is unable to resolve the issue internally, they should engage a communication manager or an assigned individual responsible for communication within the organization. This designated person will serve as a mediator between the project team and stakeholders, assisting in resolving the issue.
4. **Escalate to higher management:** If the issue remains unresolved, it should be escalated to higher management for additional examination and resolution.
5. **Document the issue and resolution:** During the escalation process, it is crucial to maintain documentation of the issue, the actions taken to address it, and the ultimate resolution. This practice ensures that comprehensive records are retained for future reference.
6. **Review and Improve:** Following the escalation process, it is essential to evaluate the process itself to identify areas for improvement in future escalations.

It is vital to emphasize that the escalation process should be flexible and adjustable according to the unique requirements of the project. The project team should conduct regular reviews of the escalation process to guarantee its ongoing effectiveness and efficiency in resolving communication-related issues.

### 7.7.12. Glossary of Communication Terminology

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Communication Plan | A document that delineates the communication strategy and protocols for both the project team and stakeholders. |
| Stakeholder | An individual or entity that possesses a vested interest or concern in the project. |
| Communication  Method | The methods through which information is transmitted, such as meetings, email, telephone, or web portal. |
| Communication  Frequency | The frequency at which project communications are disseminated. |
| Communication  Objective | The desired outcome or goal of a particular communication. |
| Communication  Flowchart | A diagram showing the flow of information within a project. |
| Escalation Process | A protocol for addressing conflicts or issues arising from communication matters. |
| Communication Matrix | A chart that outlines the communication needs and specifications for a project. |
| Communication  Standards | Standard templates, formats, or documents used for communicating within a project. |
| Communication  Constraints | Elements that can impose restrictions or influence the efficiency of project communications. |
| Communication  Guidelines | Guidelines for conducting meetings, teleconferences, and other communication modalities. |
| Communication  Technology | Tools and platforms used for communication, such as SharePoint, message boards, and video teleconferencing. |
| Communication  Escalation Process | A procedure for escalating communication-related issues or conflicts that cannot be resolved internally within the project team. |
| Communication  Approaches | Various strategies and remedies are deployed to tackle communication limitations, guaranteeing that all stakeholders are adequately informed and the project's communication goals are achieved. |

Table 18: Glossary of Communication Technology

## Quality Management Plan

### 7.8.1. Introduction

Dental clinic systems are complex organizations that treat varieties of problems for their patients. With a quality system it would drastically increase their productivity and even give convenience of access for their staff and patients. This thesis was created for Apelo dental clinic as they were the chosen client for this research. This research and creation of this system would not only help the clinic but will make treatment fast and easy while also generating satisfaction for their customers.

### 7.8.2. Quality Objectives

* Make sure the system has complete functions that also show easier navigation and great responsiveness.
* The criteria’s requested by the client need to be met.
* To achieve a quality standard not only for the client but also for the patients they serve.
* Clarify the roles and responsibilities of each member.
* Establish objectives that would manage and uphold the project quality across the course of the subject.

### 7.8.3. Quality Management Plan

* **Project completion** – when the project objectives have been achieved and proper backups have been created for potential risks regarding within the system.
* **Acceptance criteria** – when the project has achieved standards regarding user-friendliness and operation of functions, buttons, and commands.
* **Continuous integration** – for future updates and expanding of system operations, the developers would recommend a compatible and capable developer of handling the system.
* **Test-driven development** – the system would be heavily tested to ensure its functions are working in their best condition and that the code would satisfy the quality of the system as its integration to live servers.

This quality management plan provides a comprehensive framework for managing, maintaining, and improving project quality. This plan ensures that the project meets its objectives with regards to the clients’ requests, stakeholders, its users, and even the patients, providing a clear set of rules, guidelines, process, tools, and roles and responsibilities for using, creating, and improving the system itself and any issues that may arise. All stakeholders should be familiarized with the changes, the plan itself, and their role contribution in the project.

### 7.8.4. Quality Management Approach

ADENICSY will utilize an Agile and Scrum method and various testing processes to ensure that the project system delivers a high-quality product or even exceeds the expectations of all stakeholders’ expectations. The project would prioritize the required functions first to ensure every command would work then proceed to the designing phase.

The following are the roles and duties for the quality management plan:

|  |  |
| --- | --- |
| **Role** | **Description** |
| Project manager | Charged with establishing the acceptance standards and making sure that the final product satisfies the stakeholders, client, staff, and its users |
| Project team leader | Oversees the team's adherence to the Scrum framework and works with the product owner and Development Team to enhance the final product. |
| Project Development Team | Responsible for creating the production of the system and uphold the quality standards |
| Project Sponsor | Provides executive support for the project |

Table 19: Quality Management Roles and Descriptions

The approach will include the following steps:

1. **Define quality standards** – The developers would define and follow quality standards based on Agile and Scrum methodology and requests of the client with the focus of delivering value.
2. **Quality planning** – The team closely works with the stakeholders to identify and ensure the project requirements are met alongside prioritizing the most important features. The team will create a product backlog to view the changes made and set the quality goals to ensure that each iteration of the product has significant changes approaching the objectives of the quality standard,
3. **Quality control** – This measures sprint implementations to ensure that the product meets the defined requirements and quality goals. It would also identify and defects, issues, and potential requests to the system.
4. **Quality Assurance** – This would put the measures in place to prevent defects and issues from occurring in the first place, as the team would do various testing methods and processes to ensure the project is being executed according to the established standards and guidelines.
5. **Continuous Improvement** – The team would recommend a competent and professional developer for future updates, improvements, and fixes for the project.
6. **Communication** – The team will maintain constant communication with the stakeholders, clients, users, and patients in order for them to be aware of the changes, plans, status and feedback if needed.

The project team will incorporate Agile and Scrum practices, including user stories, sprints, and retrospectives, to ensure that quality is built-in throughout the project's lifecycle and meets the organization's quality standards and the needs of the project stakeholders. In addition, a risk management plan will be developed to proactively identify and mitigate potential quality risks throughout the project's lifecycle.

Overall, the Quality Management Approach for ADENICSY will prioritize delivering a high-quality product that meets customer requirements through an Agile and Scrum method. The approach will be flexible and continuously refined to ensure that the project meets or exceeds all quality expectations.

### 7.8.5. Requirements

ADENICSY will be completely functional, user-friendly, and compatible with multiple devices that have access to internet connection and the latest operating system compatible to the clinics system as the quality management plan will contain both the product and process quality standards.

**Requirements for product quality**

* ADENICSY will be fully operational and adhere to the product backlog’s technical requirements.
* The interface shall be user-friendly to all the stakeholders and its users. This project comes with instruction manuals or tutorials that can be viewed by its users.
* The project system would work with the clients’ requests and improve its technological infrastructure.
* The system requires the latest OS compatible with the clinics devices and the system itself.

**Requirements for ensuring quality of process.**

* The development team will implement an ongoing process of testing and quality assurance to ensure that the system meets all technical specifications and requirements.
* A version control tool will be used by the development team to ensure that any modifications to the system are properly documented, reviewed, and authorized.
* Regular sprint reviews will be conducted by the development team to identify and promptly address any quality issues.
* The development team will follow a defined configuration management process to ensure consistent development, testing, and deployment of the system.

### 7.8.6. Compliance Demonstration

* ADENICSY will be tested and evaluated against the established quality requirements and standards before being deployed to the client.
* The development team will maintain comprehensive documentation of all testing and quality assurance activities, which will be made available to the client upon request.
* The development team will conduct a formal acceptance test with the client to ensure that the system meets their requirements and expectations.
* The development team will provide ongoing support and maintenance services to ensure that the system continues to meet the established quality standards over time.

### 7.8.7. Continual Improvement

The development team would recommend a competent developer to ensure that the system can be improved, updated, and fixed whenever a problem arises while still upholding the quality standards.

### 7.8.8. Quality Assurance

The QA process for ADENICSY will be integrated into the Agile and Scrum method to ensure that the quality is achieved through collaborative effort and continuous improvement as the following steps will be undertaken:

* Defining quality standards – The developers will collaborate with stakeholders, client, users, and its patients to define and document the quality standards for the project in the quality management plan as the quality standards will constantly be communicated to everyone.
* Quality metrics – The project team will use quality metrics to track and report on the project's performance against quality standards.

- Test coverage presents the percentage of the system that has been tested

- Case pass rate presents the test cases that have been passed

* Continuous improvement – The developers would use the feedback to modify changes requested by the stakeholder and the client to ensure a quality product.
* Compliance with industry standards – The developers would ensure that ADENICSY would adhere to relevant industry standards such as accessibility standards, security standards, and data privacy regulations. Regular audits will be conducted to verify compliance with these standards.
* Reviewing feedback – The developers would constantly review feedback in order to improve and modify changes for the betterment of the system.

The quality assurance metrics will be closely monitored, tracked, and reported on a regular basis to ensure that the project produces a high-quality outcome. Any violations of these standards will be swiftly reviewed and corrected. The project team will receive regular reports from the software application that will be utilized to gather data on these parameters. The quality assurance procedure will also be reviewed frequently to find and implement improvements. The goal is to ensure that the Dispatch Directory System meets the highest quality standards, and that all quality assurance metrics are closely monitored to ensure the project's success.

### 7.8.9. Quality Control

In Agile and Scrum methodology, quality control is embedded into the development process, and the focus is on continuous testing and quality feedback. The Quality Control process for the Dispatch Directory System project will involve the following steps:

• Continuous testing and feedback: The project team will perform continuous testing to identify defects and ensure that the product is meeting customer requirements. The testing will be automated wherever possible.

•User Acceptance Testing (UAT): A representative group of end users will test the system to ensure it satisfies their needs and expectations. The UAT will be performed at the end of each sprint, and any necessary modifications will be made based on feedback from the users. •Compatibility Testing: The Dispatch Directory System will be tested on multiple platforms, including mobile devices and browsers, to ensure compatibility and address any difficulties that may arise when the system is used in various settings.

•Continuous Monitoring: After deployment, the project team will monitor the effectiveness of the Dispatch Directory system. This will involve keeping an eye on important performance measures including user happiness, response time, and system uptime. This will provide essential information to aid with any system upgrades and identify any problems or bottlenecks. The following quality metrics will be used to monitor and assess the system's performance:

* Test Coverage: The percentage of the system that has been tested.
* Test Case Pass Rate: The percentage of test cases that have been passed.
* User Happiness: Measured through surveys and feedback from users.
* Response Time: The time taken for the system to respond to user requests.
* System Uptime: The percentage of time the system is available and functioning as expected.
* Tracking and Documenting Quality Evaluations: The project team will track and document the outcomes of the Quality Control process, which will be used to monitor the project's progress and the effectiveness of any remedial actions that are taken.

In conclusion, the quality control process for ADENICSY will be an integral part of the development process, with a focus on continuous testing, user feedback, and performance monitoring. The project team will continuously monitor and assess the quality of the product as part of the Quality Control process, ensuring that it meets the required quality standards and customer requirements.

### 7.8.10. Quality Control Measurements

The Agile and Scrum techniques will be employed to promote continuous inspection and modification throughout the project lifecycle for the ADENICSY project, which will adopt a transparent and collaborative approach to quality control.

To guarantee that the product fulfills the standards and criteria, quality control measures will be made at each stage of the development process and documented on a shared, viewable platform, such as a project management tool, as opposed to a static spreadsheet or table.

The following details will be on the platform:

* Measurement date
* Measurement type (e.g., automated testing, code review, peer review, user story acceptance)
* The measurement's findings (such as passed/failed, the number of flaws discovered, and the percentage of code coverage)
* Requirements and standards for comparison
* Member of the team in charge of measuring
* Team member responsible for assessing the measurement results.
* Taking any required corrective actions
* The date that the remedial measures were finished.

Dashboards and other visual tools will be used to track the quality control measurements in real-time so that all team members can readily access and comprehend the data. The dashboards will draw attention to patterns and problem areas so that the team can act fast and make the necessary adjustments. The quality control metrics will be reviewed, and the method will be adjusted as necessary during routine team reviews such as sprint reviews and retrospectives. Together, the group will pinpoint potential improvement areas and put any found problems into practice.

In conclusion, the ADENICSY project will use Agile and Scrum approaches to implement a collaborative and dynamic quality control strategy. To make sure the product satisfies the standards and needs, the team will regularly assess the product's quality and make the required improvements. On a common platform, all quality control measurements will be collected and tracked in real-time. The team will collaborate to address any problems and implement any necessary improvements.

## Risk Management Plan

### 7.9.1. Introduction

The Apelo Dental Clinic Management System (ADENICSY) aims to provide a system for the Apelo Dental Clinic.

The project team's duties and responsibilities, the risk assessments plan, and an overview of the risk management process are all included in the risk management plan. The plan will also describe the risk monitoring and management procedures and risk response tactics. The plan's effectiveness will be judged by how quickly threats are identified and dealt with.

The following are information that are considered when developing a Risk Management Plan for the project, ADENICSY:

* **Identifying Risk:** The Apelo Dental Clinic Management System (ADENICSY) development, implementation, and operation project group ought to be aware of any potential dangers. Risks may appear from a number of different places, including technical problems, legal requirements, cybersecurity, and human factors. Risks should be identified and then evaluated for both chance of occurrence and potential effects on the project.
* **Risk Monitoring:** Risk management is an ongoing activity that needs regular observation and evaluation. To guarantee that risk management procedures are still effective, risks are updated, and new risks are discovered, the project team should establish a frequent review process. All stakeholders should be informed of any changes during the review process, which should be open and transparent.
* **Contingency Plans:** The project team needs to create backup plans for major risks that could have a big impact on the project's success. Plans for alternatives ought to specify the actions needed to lessen the risk's effects and keep the project moving forward. As the project develops and new risks are discovered, these strategies should be periodically reviewed and modified.
* **Risk Mitigation Tactics:** The project team should create a plan for minimizing or avoiding the risks after having identified and assessed the risks. Prioritizing mitigation tactics should be done in accordance with how well they reduce risk and how easily they can be implemented in terms of both time and money. Contingency planning, redundancy, risk transfer through insurance, and the creation of fallback processes are some possible strategies.

The Apelo Dental Clinic Management System (ADENICSY) project team will ensure that the project is executed effectively, satisfying all objectives while avoiding potential risks by taking these extra considerations into account in a risk management plan.

### 7.9.2. Top Three Risks

1. The Apelo Dental Clinic Management System (ADENICSY) would not synchronize the data/information of the patient being recorded if the internet connection is disrupted and/or lost during the process.

2. The information cannot be transferred/exchanged safely if the internet connection is lost and if there was a problem/issue that unexpectedly occurs with the router that connects the devices together.

3. The data in the Apelo Dental Clinic Management System (ADENICSY) can be vulnerable with risks when it comes to new employees being hired since the core data, which is the patient’s recorded data, can be interacted with by the employees.

### 7.9.3. Risk Management Approach

The steps below are to help in being able to manage risks in the Apelo Dental Clinic Management System (ADENICSY) project:

* **Risk Identification and Assesment:** Through brainstorming sessions, studies of prior project experiences, and evaluation of the project's requirements and scope, the project team will identify project-related threats. The risks will be listed in a risk register together with details about their likelihood of happening, potential effects, and description. The identified risks will be assessed in terms of their likelihood of occurring and their effect on the project. The project team will rank each risk according to severity using the risk matrix. Risks with a high level of severity will be prioritized for either mitigation or contingency planning.
* **Risk Monitoring:** Risks will be continuously monitored during the project. To ensure that risks are being properly managed, the project team will frequently review the risk register. As further threats are found and added to the risk register throughout the project, the risk assessment process will be repeated.
* **Risk Mitigation:** Plans for risk mitigation will be developed for risks having a high effect and likelihood of occurrence. The risk-mitigation strategies will be included in the mitigation plans. The project team will also decide on fallback plans for risks that cannot be minimized.
* **Risk Communication:** Risk communication is the process of alerting relevant parties—including the project sponsor, the project team, and other stakeholders—about risks and related management strategies. If any risks are identified, assessed, and dealt with, the project team will keep all stakeholders informed and maintain regular communication.

### 7.9.4. Risk Identification

At a risk assessment meeting, the project team and important stakeholders were asked to identify and evaluate possible risks to the project's success. The dangers that were found were listed in a risk registry. To identify potential hazards and create mitigation techniques, the project team also looked back at historical data from other projects of a similar nature. To find extra hazards and create mitigation plans, team members who had experience creating similar systems were questioned by experts.

The risks discovered during the expert interviews and risk assessment meeting were documented in a manner consistent with the Agile risk management plan. To guarantee that new risks are found, and old risks are efficiently managed, the risk register is updated on a regular basis. The project team will keep an eye on and manage risks all the way through the project. The following are a few of the project's potential risks for the Apelo Dental Clinic Management System (ADENICSY):

* **Human Error:** Errors made by project team members, having the potential of having an influence on the project.
* **Security Vulnerabilities:** The initiative runs the risk of being exposed to security lapses or data loss, both of which might have dire repercussions.
* **Unforeseen Circumstances:** There is a chance that unanticipated events (such market shifts) could have an unexpected effect on the project.

### 7.9.5. Risk Qualification and Prioritization

The project team will regularly review and update the risk record to make sure that risks are prioritized appropriately. The risks mentioned in the risk records were classified and evaluated using a probability-impact matrix. Risks that would have a significant effect on the project and a high possibility of occurring were given top consideration. Determine the probability and impact of each risk after analyzing potential risks related to the Apelo Dental Clinic Management System (ADENICSY) business case. Following is an overview of the likelihood of risks and their effects on the project:

* Extreme: Risks that could seriously harm the project and have a very high possibility of happening.
* High: Risks that could have a big impact on the project and have a high chance of happening. The team must immediately address these risks and create mitigation plans for them.
* Medium: Risks that have an average chance of happening and a fair impact on the project. In order to prepare for these risks, mitigation plans should be created, and these risks should be continuously monitored.
* Low: Risks that have a small impact on the project and a low likelihood of occurring. Periodically monitoring these risks will allow for the development of mitigation plans in case that they occur.
* Negligible: Risks that have little chance of happening and little effect on the project. These dangers can be disregarded.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **RISK ASSESSMENT MATRIX** | | | | | |
| PROBABILITY  IMPACT | RARE  (1) | UNLIKELY  (2) | POSSIBLE  (3) | LIKELY  (4) | ALMOST  CERTAIN (5) |
| INSIGNIFICANT  (1) | N | N | N | N | L |
| MINOR  (2) | N | N | L | L | M |
| SIGNIFICANT  (3) | N | L | L | M | H |
| DISASTROUS  (4) | N | L | M | H | E |
| CATASTROPHIC  (5) | L | M | H | E | E |

Table 20: Risk Assessment Matrix

**Technical Risks:**

• High probability and high impact

• Lack of technical expertise to develop the system

• Failure of the new system to integrate with the current systems

**Resource Risks:**

• Medium probability and medium impact

• Inadequate resources for the project

• Security Risks:

• Medium probability and medium impact

• Unauthorized access to the system

We will first concentrate on creating mitigation methods for the extreme and high priority hazards in accordance with the prioritizing. The medium and low priority hazards will be regularly monitored, and if necessary, mitigation methods will be developed. The very low probability of occurrence and the very small impact on the project mean that the minimal priority risks will be disregarded.

### 7.9.6. Risk Monitoring

The Apelo Dental Clinic Management System's (ADENICSY) Agile Risk Management Plan offers a framework for actively tracking risks throughout the project. To do this, it is crucial to closely document the process, including defining the circumstances that might set off risks, and to regularly monitor risks during the project.

The high-scoring risks will be incorporated into the project schedule, and the risk manager will be given responsibility for their monitoring. This will make it easier for the project manager to decide when hazards need to be closely monitored and when the risk manager should provide project team meetings with updates. The risk manager will oversee monitoring the risk trigger circumstances. The project manager will also make sure that the project team is informed of the risks that have been identified and their potential effects on the project. Any new risks or modifications to existing risks should be reported to the risk management by the project team so that they can be evaluated and given the appropriate level of priority.

The agile risk management methodology, which emphasizes flexibility and constant improvement, will be used by the project team. To guarantee that the project's goals and quality standards are met, the effectiveness of the risk management plan will be periodically evaluated and changed as necessary.

### 7.9.7. Risk Mitigation and Avoidance

The project team will develop the risk management plan based on the value that each risk is given. The first stage in risk mitigation and avoidance is to identify and prioritize the potential risks. Strategies to prepare for likely delays could include preparing backup plans, allocating more resources, or changing project deadlines. The project team should determine which risks have the highest likelihood and potential impact and then establish plans to reduce or eliminate those risks. The project manager has the following main factors and choices to think about:

* **Resource Allocation:** The project manager must make sure the team has the necessary resources, including competence, abilities, and expertise, as well as access to tools and equipment, for the project to be effective and efficient. The project manager oversees making sure that the team has access to these resources in order to complete the project on schedule and within the allocated budget.
* **Risk Assessment:** To effectively estimate and handle potential hazards, the team should do a detailed analysis of them. Early in the project, the risk assessment should be finished, and the project manager should move quickly to identify and reduce any potential risks.
* **Contingency Planning:** The project team must develop backup plans for emergencies to be ready for potential dangers. The project manager is responsible for supervising the creation, validation, and testing of these strategies for each potential risk.
* **Agile Approach:** Risk management can be done in a flexible and quick manner by using the Agile methodology. The team's use of the Agile methodology, which permits continual risk management and the capacity for change, must be ensured by the project manager.
* **Communication:** The project manager must encourage open and transparent communication between the project team, clients, and stakeholders to reduce risks and avoid misunderstandings.

### 7.9.8. Risk Register

Each risk, its likelihood, potential repercussions, and any mitigation steps will be fully explained in the risk register, which will be maintained current throughout the project. The risk register will be reviewed and updated frequently to make sure it accurately reflects the state of the project at the present time. The risk registry, which will be stored in a central location, will be accessible to all stakeholders.

This risk management strategy is often in line with the Agile methodology and places an emphasis on early and frequent risk discovery, collaborative risk management, and continuing risk monitoring. By foreseeing and resolving potential risks, the Apelo Dental Clinic Management System (ADENICSY) project team can decrease the effects and increase the likelihood that the project will succeed. The risk register will be based on the following standards:

* Risk ID - Each risk will receive a special identification number.
* Risk Description - The risk event will be clearly and concisely described.
* Risk Category - Risks will be categorized as technical, organizational, or legal.
* Risk Owner - Will be in charge of keeping an eye on and managing every risk.
* Probability - On a scale of 1 to 5, with 1 denoting the lowest chance and 5 denoting the highest, the likelihood of a risk occurring is evaluated.
* Impact - On a scale of 1 to 5, where 1 represents the least significant impact and 5 represents the most significant impact, the risk's potential impact on the project is evaluated.
* Risk Score - For calculating the overall risk score, the likelihood and impact scores are compounded.
* Mitigation Strategy - explains the precise steps must be done to reduce the risk.
* Status - The current state of the risk, including whether it is open, ongoing, or closed, is also recorded.
* Target Resolution Date - predicted day that the risk will be resolved.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RISK ID** | **RISK RANK** | **RISK** | **DESCRIPTION** | **CATEGORY** | **DESTINATION/**  **OWNER** | **PROBA-BILITY** | **IMPACT** | **STATUS** |
| RID 001 | 1 | Technical  Risk | The system may not work well with current hardware and software systems, which could lead to errors and delays in the system. | Technology | Project  Lead | High | High | In Progress |
| RID  002 | 2 | Resource  Risk | There is a chance that there won't be enough resources available to finish the project on schedule, which will cause delays and cost overruns. | Organizational | Project Manager | Medium | Medium | In Progress |
| RID  003 | 2 | Health Risk | Exposure in any sickness may lead to the delay of the development of the system | Technical | System Developer | Low | Medium | In Progress |

Table 21: Risk Register

## 7.10 Procurement Plan

### 7.10.1. Introduction

The Procurement Management Plan plays a critical role in the successful completion of the project. This plan outlines the procurement requirements of the project and how the The procurement process will be managed from the development of procurement documentation to the closure of contracts. This plan aims to ensure that all necessary items are procured on time, within budget, and according to quality standards. required for the project.

This plan defines the types of items to be procured, the justification statements and timelines for their procurement, the contract types to be used, the risks associated with procurement management, and how these risks will be mitigated. It also outlines the process for determining costs and evaluating suppliers, including the use of standardized. procurement templates and documents.

The plan details how multiple suppliers will be managed if applicable and the contract approval process, decision criteria, and establishment of contract deliverables and deadlines. It explains how procurement and contracts are coordinated with the project scope, budget, and schedule, any constraints pertaining to procurement, and the direction to sellers on baseline requirements such as contract schedules and work breakdown structures (WBSs).

Vendor management is a crucial aspect of the procurement process, and this plan outlines. how it will be managed, including the identification of any prequalified sellers if applicable. Finally, the plan defines performance metrics for procurement activities to ensure that the procurement process is monitored and controlled throughout the project's life cycle.

Overall, this Procurement Management Plan is designed to ensure that the project's procurement needs are met efficiently and effectively, with an emphasis on quality, cost, and schedule. It provides a clear and concise roadmap for the procurement process, ensuring that all stakeholders are aligned and informed throughout the process.

### 7.10.2. Procurement Risk

Procurement is a critical aspect of the Apelo Dental Clinic project, involving the acquisition of goods, services, and equipment from external sources. The procurement process inherently carries risks that can impact the project's success. It is vital to proactively identify and address these risks to minimize their potential negative effects. The Apelo Dental Clinic project encompasses various procurement activities, each with its own set of inherent risks that need to be managed effectively.

The following risk of Procurement acitivtiy of Apelo Dental Clinic are:

1. **Supplier Reliability**: The risk that selected suppliers may fail to meet delivery deadlines or provide the required quality of goods or services.
2. **Cost Overruns:** The risk of unexpected price increases or additional expenses exceeding the allocated budget for procurement.
3. **Delivery Delays**: The risk of delays in the delivery of procured items, potentially impacting project timelines and subsequent activities.
4. **Quality Issues:** The risk of receiving goods or services that do not meet the desired specifications or standards.
5. **Compliance and Legal Risks:** The risk of non-compliance with applicable laws, regulations, or contractual obligations during the procurement process.
6. **Supply Chain Disruptions:** The risk of disruptions in the supply chain, such as logistic issues, transportation delays, or availability constraints, that may affect the timely acquisition of goods or services.

By proactively identifying and managing these procurement risks, the Dispatch Directory System project can mitigate potential setbacks, enhance project outcomes, and ensure the successful execution of procurement activities.

### 7.10.3. Procurement Risk Management

Procurement risk management is an essential component of the Apelo Dental Clinic project to ensure successful procurement outcomes. By effectively managing procurement risks, the project team can minimize the likelihood and impact of potential issues. The following strategies will be implemented to address procurement risks:

1. Risk Identification: Thoroughly assess and identify potential risks associated with procurement activities, such as supplier reliability, cost overruns, delivery delays, quality issues, compliance, and supply chain disruptions.
2. Risk Assessment: Evaluate the identified risks based on their likelihood of occurrence and potential impact on the project. Prioritize risks based on their significance to focus resources and attention accordingly.
3. Risk Mitigation: Develop and implement mitigation strategies to reduce the probability or impact of identified risks. This may involve diversifying suppliers, negotiating contractual terms and penalties, conducting thorough supplier evaluations, or establishing backup plans for supply chain disruptions.
4. Risk Monitoring: Continuously monitor and track procurement risks throughout the project's lifecycle. Regularly assess the effectiveness of risk mitigation strategies and update them as necessary.
5. Contingency Planning: Develop contingency plans to address potential procurement risks that cannot be completely mitigated. These plans should outline specific actions to be taken in the event of risk occurrence to minimize disruption to project timelines and objectives.
6. Supplier Relationship Management: Foster strong relationships with suppliers through effective communication, regular performance evaluations, and proactive issue resolution. This can help mitigate risks and improve overall procurement outcomes.

By implementing robust procurement risk management practices, the Apelo Dental Clinic project can enhance its ability to navigate potential challenges, ensure timely procurement of goods and services, and achieve project objectives with minimized risk exposure.

### 7.10.4. Cost Determination

Cost determination is a critical aspect of the Apelo Dental Clinic project's procurement process. Accurately estimating and determining the costs associated with procuring goods, services, and equipment is essential for effective budgeting and financial planning. To determine costs, thorough market research will be conducted to understand the prevailing prices and cost structures for the desired goods and services. This research will establish a benchmark and provide insights for negotiating favorable prices with suppliers. The project team will issue Request for Quotations (RFQs) to potential suppliers, outlining the required goods or services and requesting detailed cost proposals. The received quotations will be carefully evaluated to assess the cost components, including unit prices, taxes, shipping charges, and any additional costs.

Cost analysis will be performed to ensure transparency and accuracy in the breakdown of costs provided by suppliers. This analysis will verify the reasonableness of each cost element and ensure alignment with the project's budget and objectives. The team will also explore the potential for obtaining quantity discounts based on the projected procurement volumes. Negotiating with suppliers to secure cost savings for larger quantities will be a priority. Moreover, the total cost of ownership will be considered, encompassing not only the initial purchase price but also factors such as maintenance, warranty, and operational costs over the product's lifecycle. This comprehensive approach will provide a more accurate assessment of the overall costs associated with the procurement.

To maintain cost control, the project will implement mechanisms for monitoring and tracking costs throughout the procurement process. Clear procedures will be established for approving expenses, tracking budget utilization, and managing change orders to prevent cost overruns. The project will encourage competition among suppliers through a competitive bidding process, allowing multiple vendors to submit their bids and propose competitive pricing. This approach will help drive down costs while ensuring the acquisition of high-quality goods and services.

By effectively determining costs, the Apelo Dental Clinic project will establish a realistic budget, negotiate favorable terms with suppliers, and optimize its procurement activities for cost efficiency. This will contribute to the successful implementation of the project within budgetary constraints while ensuring the procurement of necessary resources to support the clinic's operations.

### 7.10.5. Procurement Constraint

A procurement constraint refers to any limitations or restrictions that impact the procurement process of goods, services, or equipment for the Apelo Dental Clinic project. The following procurement constraints should be taken into consideration:

1. Budget Constraints: The procurement activities must align with the allocated budget for the project. It is crucial to ensure that procurement decisions are made within the specified financial limitations to avoid cost overruns or budgetary constraints.
2. Supplier Availability: The availability of qualified suppliers in the market for the required goods and services can impact the procurement process. Limited supplier options or extended lead times for certain items may pose challenges in acquiring the necessary resources within the desired timeframe.
3. Regulatory Compliance: Compliance with applicable laws, regulations, and procurement policies is essential. The procurement process must adhere to legal requirements, such as fair competition, transparency, and ethical standards. Any regulatory constraints or specific procurement rules must be followed.
4. Quality Standards: The procurement process should prioritize the acquisition of goods and services that meet the required quality standards. Compliance with specific industry or regulatory quality certifications or standards may be necessary, and this constraint must be considered during the supplier evaluation and selection process.
5. Procurement Capacity: The procurement team's capacity and expertise may limit the number or complexity of procurement activities that can be undertaken simultaneously. It is important to assess the available resources and capabilities to ensure efficient and effective procurement processes.
6. Delivery Timeframes: The procurement constraints related to delivery timeframes should be taken into account. Certain items may have longer lead times or limited availability, which could impact project timelines. Coordinating with suppliers and establishing clear delivery expectations is crucial to avoid delays.
7. Contractual Considerations: Any contractual agreements or terms and conditions with suppliers should be carefully reviewed and adhered to. It is important to ensure that the procurement process aligns with the contractual obligations and requirements to mitigate legal and operational risks.

By identifying and managing these procurement constraints, the Apelo Dental Clinic project can ensure a streamlined and compliant procurement process. Proactive planning, effective supplier management, and clear communication with stakeholders are essential to overcome any potential challenges and successfully procure the necessary resources for the project.

### 7.10.6. Contract Approval Process

The contract approval process for the Apelo Dental Clinic project involves a series of steps to ensure thorough evaluation, negotiation, and approval of procurement contracts. The following outlines the typical contract approval process:

1. Contract Identification: Identify the need for a contract based on the procurement requirements. This includes determining the goods, services, or works that require a contractual agreement.
2. Contract Creation: Draft the contract document, clearly defining the scope of work, deliverables, terms and conditions, payment terms, and any other relevant contractual provisions. Ensure compliance with legal and regulatory requirements and align the contract with the project objectives and procurement policies.
3. Contract Review: Conduct a comprehensive review of the contract to verify accuracy, clarity, and consistency. Involve legal and procurement experts to assess the contractual terms and conditions, identify any potential risks or ambiguities, and suggest necessary revisions.
4. Contract Negotiation: Engage in negotiations with the selected vendor or supplier to reach mutually agreeable terms. This may involve discussions on pricing, delivery schedules, warranties, service levels, intellectual property rights, and any other key contractual provisions. Negotiate in a fair and transparent manner while protecting the interests of the Apelo Dental Clinic.
5. Legal and Compliance Review: Seek legal advice to ensure compliance with applicable laws and regulations. Review the contract for legal compliance, including data protection, confidentiality, insurance requirements, and any other legal considerations specific to the project or the dental industry.
6. Internal Approval: Obtain internal approval from the authorized stakeholders within the Apelo Dental Clinic. This may involve seeking approval from senior management, finance department, legal counsel, or any other designated personnel responsible for contract approval.
7. Contract Execution: Once all necessary approvals are obtained, the contract is executed by all relevant parties involved. This includes obtaining signatures from authorized representatives of both the Apelo Dental Clinic and the vendor or supplier.
8. Contract Management: Establish a contract management system to monitor and track contract performance, deliverables, and compliance throughout the project duration. Assign responsibilities for contract administration, including monitoring key contract milestones, reviewing progress, addressing changes or disputes, and ensuring adherence to contractual obligations.
9. Contract Closeout: Upon successful completion of the contract, conduct a thorough review to ensure all contractual obligations have been met. Document any lessons learned, conduct a performance evaluation of the vendor or supplier, and formally close the contract.

By following a well-defined contract approval process, the Apelo Dental Clinic project can ensure transparency, compliance, and effective management of procurement contracts. This process helps mitigate risks, protect the interests of the clinic, and foster successful vendor relationships throughout the project lifecycle.

### 7.10.7. Decision Criteria

The decision criteria for the Apelo Dental Clinic project play a crucial role in evaluating and selecting various options or alternatives. These decision criteria serve as benchmarks against which potential solutions, suppliers, or courses of action are assessed. The following are some common decision criteria that can be considered for the project:

1. Cost: Evaluate the financial implications of different options, taking into account not only upfront costs but also long-term expenses, such as maintenance, licensing fees, and operational costs. Consider the overall cost-effectiveness and value for money provided by each option.
2. Functional Requirements: Assess how well each option meets the functional requirements of the Apelo Dental Clinic. Consider factors such as the system's capability to handle patient records, appointment scheduling, queue management, reporting, and other essential functionalities.
3. Scalability and Flexibility: Evaluate the scalability and flexibility of each option to accommodate future growth and changes within the clinic. Consider whether the solution can adapt to evolving needs, accommodate additional users or clinics, and integrate with other systems or technologies.
4. User Experience: Consider the usability and user experience of each option. Evaluate factors such as user-friendliness, intuitiveness, training requirements, and potential impact on staff productivity and satisfaction.
5. Technical Compatibility: Assess the technical compatibility of each option with the existing IT infrastructure of the Apelo Dental Clinic. Consider factors such as system requirements, compatibility with operating systems, databases, and integration capabilities with other tools or software.
6. Vendor Reputation and Support: Evaluate the reputation, experience, and track record of potential vendors or solution providers. Consider factors such as their customer support, maintenance services, response time, and availability of updates or upgrades.
7. Implementation Timeframe: Assess the estimated time required for implementing each option. Consider factors such as the complexity of implementation, data migration, training requirements, and potential disruption to clinic operations during the transition period.
8. Regulatory Compliance: Ensure that each option aligns with relevant regulatory requirements, such as data protection and privacy regulations in the dental industry. Consider how well each option addresses compliance needs and minimizes any legal or regulatory risks.
9. Risk Assessment: Evaluate the potential risks associated with each option and assess their impact on the project's success. Consider factors such as data security risks, vendor reliability, potential system downtime, and the clinic's ability to handle any challenges or disruptions.
10. Return on Investment (ROI): Assess the potential return on investment for each option. Consider the projected benefits, cost savings, revenue generation, and overall value that the chosen solution can bring to the Apelo Dental Clinic.

By using these decision criteria, the project team can make informed and objective decisions that align with the goals and requirements of the Apelo Dental Clinic. It is important to prioritize and weight the decision criteria based on their relative importance to the project's success and the specific needs of the clinic.

### 7.10.8. Performance Matrix for Procurement Activities

Performance metrics for procurement activities in the Apelo Dental Clinic project help evaluate and measure the effectiveness and efficiency of the procurement process. These metrics provide insights into key performance areas and enable continuous improvement. The following are some performance metrics that can be considered for procurement activities:

1. Cost Savings: Measure the cost savings achieved through procurement activities, including negotiated discounts, competitive bidding, volume discounts, or alternative supplier selection. This metric helps assess the financial benefits gained through efficient procurement practices.
2. Supplier Performance: Evaluate the performance of suppliers based on factors such as on-time delivery, product or service quality, responsiveness to inquiries, and adherence to contractual terms and conditions. This metric ensures that suppliers meet or exceed expectations, minimizing the risk of disruptions or delays.
3. Contract Compliance: Monitor the level of compliance with contractual terms and conditions by both the Apelo Dental Clinic and the suppliers. Assess adherence to pricing agreements, delivery schedules, warranty provisions, and any other contractual obligations. This metric helps identify and address any deviations or non-compliance.
4. Purchase Cycle Time: Measure the time taken to complete the procurement cycle, starting from the identification of a need to the final receipt of goods or services. This metric helps identify bottlenecks or inefficiencies in the procurement process and enables process optimization for faster turnaround times.
5. Supplier Diversity: Evaluate the extent to which the procurement process promotes supplier diversity, considering factors such as the engagement of minority-owned or women-owned businesses. This metric assesses the inclusivity and social impact of the procurement activities.
6. Stakeholder Satisfaction: Gather feedback from internal stakeholders, such as project team members, end-users, and senior management, to assess their satisfaction with the procurement process. This can be done through surveys, feedback sessions, or regular communication channels. This metric helps gauge stakeholder perceptions and identifies areas for improvement.
7. Savings Tracking: Track and measure the cumulative cost savings achieved through procurement activities over a specific period. This metric provides visibility into the overall impact of procurement initiatives and helps quantify the value generated for the Apelo Dental Clinic.
8. Supplier Relationship Management: Evaluate the strength and effectiveness of relationships with key suppliers. This metric considers factors such as communication, collaboration, joint problem-solving, and long-term strategic alignment. It helps foster mutually beneficial partnerships and ensures a reliable supply chain.
9. Procurement Cycle Cost: Measure the overall cost incurred during the procurement process, including administrative costs, personnel costs, and other associated expenses. This metric helps identify areas where cost efficiencies can be achieved and supports budget planning and control.
10. Risk Management: Assess the effectiveness of risk management in procurement activities. This includes tracking the identification, assessment, and mitigation of risks related to suppliers, supply chain disruptions, contractual issues, and other procurement-specific risks.

## 7.11 Implementation Plan

### Executive Summary

The Apelo Dental Clinic System project is nearing completion, and as part of the project closeout, a transition out plan has been developed to ensure a smooth handover of the system to its new owners. The purpose of this plan is to provide a high-level overview of the transition process, including the history of the contract, the current state of the system, and the planned transition to the new owners.

The Apelo Dental Clinic System was developed by our organization in collaboration with the client to improve their data management storing and queuing system. The system has been in use for the past year and has successfully achieved the project objectives. As per the contract agreement, the system is now transitioning to the client's ownership. The current state of the system is stable and operational. All required functionalities have been tested and validated, and user training has been completed. As we transition out, we aim to ensure that the client is equipped with all necessary documentation and support to manage and maintain the system effectively.

The new owners will receive all project deliverables, including technical documentation, user manuals, and source code, to ensure they have a comprehensive understanding of the system. We will also provide knowledge transfer sessions to the new owners, covering system operations, maintenance, and troubleshooting. The transition out plan for the project includes a detailed timeline with a focus on a smooth and successful handover to the new contractor. The execution phase of the transition plan involves user training and go-live, which will take place at the end of August 2023.

The closeout phase of the plan involves several key activities, including documenting lessons learned, updating files and records, gaining formal acceptance, archiving files and documents, and holding a project closeout meeting. These activities will take place throughout September 2023, with the project closeout meeting scheduled for the end of the month. Throughout the transition, the transition team will work closely together to ensure a smooth handover and minimize any disruptions to the project's operations.

The team will consist of various roles, including the Transition Project Manager, Technical Lead, Subject Matter Experts, Quality Assurance Lead, and Project Team Members. By following this transition plan and timeline, the project team aims to ensure a successful and seamless handover to the new contractor while maintaining the quality of the project's deliverables. Overall, the transition out plan aims to ensure that the client receives a fully operational and sustainable system, and that our organization completes the project on a positive note.

### Transition Approach

#### Overall Approach:

The approach for the Transition Out plan for the Apelo Dental Clinic System Project will be a phased transition approach since there is a need for continuity and minimal disruption to ongoing operations. This approach allows for a gradual and systematic transfer of knowledge, resources, and responsibility to the new team, minimizing the risk of downtime and service interruption.

The transition approach will include the following steps:

1. Communication Plan: The communication plan will ensure that all stakeholders are aware of the transition plan, timelines, and expectations for the transition.
2. Transition Planning: The transition plan will be developed in coordination with the Apelo Dental Clinic Staff, and it will include a detailed timeline of all activities that need to be completed during the transition.
3. Knowledge Transfer: Knowledge transfer will occur through various means, such as documentation, instruction manuals, as-built documents, and formal training classes, to ensure that the Apelo Dental Clinic Staff has the necessary skills and knowledge to support the system.
4. Staffing: During the transition, the project team will scale down their staff to a minimum level required to support the knowledge transfer and transition activities.

#### Timeline:

The transition out plan for this project involves a comprehensive schedule of activities that are necessary to successfully transition from the incumbent contractor to the Apelo Dental Clinic Staff. The transition plan is broken down into two main phases, execution, and closeout. The execution phase includes user training and go-live events that are scheduled from August 28th to August 31st. The closeout phase involves document lessons learned, update files/records, gain formal acceptance, archive files/documents, and project closeout meeting. These activities will be conducted from September 1st to September 29th. The timeline provides a detailed schedule for each activity to ensure timely completion of all transition activities. The success of the transition plan will depend on the careful planning and execution of each activity as outlined in the timeline.

#### Assumptions:

The following assumptions will be made for the transition approach:

1. The Apelo Dental Clinic staff will be available for an onsite meeting to participate in the transition and receive knowledge transfer.
2. The project team will provide all necessary documentation, training, and instruction manuals to the Apelo Dental Clinic Staff to facilitate knowledge transfer.
3. The owner will provide all necessary equipment and software licenses for the Apelo Dental Clinic Staff to support the system.
4. The Apelo Dental Clinic Staff will have the necessary skills and knowledge to support the system after the completion of the transition.

### Transition Team Organization

#### Roles and Responsibilities:

* 1. **Transition Project Manager (TPM**): Overall responsible for the success of the transition. The TPM will manage the transition team, ensure timely completion of transition activities, coordinate with the customer, and ensure compliance with the transition plan.
  2. **Developers/Technical Lead (TL):** Responsible for providing technical expertise on the project. The Developers/Technical Lead will work closely with the project team to understand the system and develop a plan for the transition. The TL will also be responsible for coordinating with the new contractor to ensure a smooth transition of technical knowledge and expertise.
  3. **Subject Matter Experts (SMEs):** Responsible for providing subject matter expertise on specific areas of the project. The SMEs will work closely with the developers, project team and the Apelo Dental Clinic Staff to ensure a smooth transition of knowledge and expertise.
  4. **Quality Assurance (QA) Lead:** Responsible for ensuring that all deliverables meet the quality standards set forth in the transition plan. The QA Lead will work closely with the TPM to develop quality metrics and ensure that all transition activities are completed to a high standard.
  5. **Project Team Members:** Responsible for providing support with knowledge and expertise on the system. They will work closely with the TPM, developers, SME, and Apelo Dental Clinic Staff members to ensure a smooth transition of knowledge and expertise.

|  |  |
| --- | --- |
| **Roles** | **Responsibilities** |
| **1. Transition Project Manager (TPM**): | Overall responsible for the success of the transition. The TPM will manage the transition team, ensure timely completion of transition activities, coordinate with the customer, and ensure compliance with the transition plan. |
| **2. Developers/Technical Lead (TL):** | Responsible for providing technical expertise on the project. The Developers/Technical Lead will work closely with the project team to understand the system and develop a plan for the transition. The TL will also be responsible for coordinating with the new contractor to ensure a smooth transition of technical knowledge and expertise. |
| **3. Subject Matter Experts (SMEs):** | Responsible for providing subject matter expertise on specific areas of the project. The SMEs will work closely with the developers, project team and the Apelo Dental Clinic Staff to ensure a smooth transition of knowledge and expertise. |
| **4. Quality Assurance (QA) Lead:** | Responsible for ensuring that all deliverables meet the quality standards set forth in the transition plan. The QA Lead will work closely with the TPM to develop quality metrics and ensure that all transition activities are completed to a high standard. |
| **5. Project Team Members:** | Responsible for providing support with knowledge and expertise on the system. They will work closely with the TPM, developers, SME, and Apelo Dental Clinic Staff members to ensure a smooth transition of knowledge and expertise. |

Table 22: Implementation Plan Roles and Responsibilities

### Workforce Transition

The workforce transition is a critical aspect of the transition out plan for the Apelo Dental Clinic System project. In order to ensure a smooth and efficient transition, it is essential to determine and communicate the workforce plan of time. As part of the transition team, the Transition Project Manager will work closely with both the incumbent and new contractors as well as the customer to determine the best course of action for the workforce.

This may include retaining current staff, transitioning staff to the new contractor, or hiring new staff altogether. Communication will be key in this process, as the workforce must be informed of any changes in a timely and respectful manner.

The Transition Project Manager will work closely with HR and management to ensure that all staff are aware of their options and are provided with the necessary support throughout the transition process.

In addition, any necessary training or re-training will be provided to ensure that the workforce is fully equipped to continue providing high-quality services during and after the transition period. The workforce transition plan will be regularly reviewed and updated as necessary to ensure that the project is successfully completed on time and within budget.

#### Workforce Execution During Transition

During the transition period of the Apelo Dental Clinic System project, work will still need to be performed they are as follows:

* **User Training:** This will involve the development and delivery of training materials to educate users on the new system. The training sessions will likely be held over a period of three days and will involve both classroom and hands-on training.
* **Go Live**: This will be the actual launch of the new system. The team will need to ensure that all systems are in place and functioning correctly before the system is made available to users. This will likely involve final system testing and ensuring that all data has migrated correctly.
* **Document Lessons Learned:** This phase will involve documenting the lessons learned during the project. This includes identifying areas where the team performed well, as well as areas where there is room for improvement. The document will be used to help inform future projects and ensure that best practices are adopted moving forward.
* **Update Files/Records**: During this phase, the team will be responsible for updating all relevant files and records to reflect the completion of the project. This may involve archiving certain documents or updating contracts and agreements with new information.
* **Gain Formal Acceptance:** This phase involves formally gaining acceptance from the customer that the transition has been completed successfully. The team will need to ensure that all deliverables have been met and that the customer is satisfied with the new system.
* **Archive Files/Documents:** This phase involves archiving all project-related files and documents. This may include contracts, agreements, project plans, and other relevant materials.
* **Project Close Out Meeting**: The final phase of the transition will involve a project close out meeting with all stakeholders. This will be an opportunity to discuss the project, including any successes or areas for improvement, and to ensure that all outstanding issues have been resolved.

### Subcontracts

No contracts or subcontract agreements about this project currently exist, thus there is no need for any transfer or transition of contracts or related agreements.

#### Property Transition

1. **Government Furnished Equipment (GFE)**

Since there is no involvement of Government Furnished Equipment (GFE) in the Apelo Dental Clinic System project, this section of the transition plan is not applicable.

1. **Incumbent Owned Equipment**

It is crucial to clearly specify the equipment owned by the current party and ensure it remains in their possession. In case there is any equipment required for supporting the customer's applications and services, the plan should indicate whether the new contractor or customer has the choice to buy or utilize it. Additionally, the plan should incorporate a schedule for the transfer of ownership and any essential paperwork, such as bills of sale or agreements for transferring ownership.

If Apelo Dental Clinic can provide the necessary equipment upon transition, there may not be a need for the project team to transition the equipment to ADENICSY. However, it remains crucial to clearly distinguish between the equipment owned by the incumbent and the equipment that will be supplied by Apelo Dental Clinic. This is necessary to facilitate a seamless transition and prevent any potential conflicts or misunderstandings. The project team should closely collaborate with Apelo Dental Clinic and ADENICSY to ensure that all required equipment is accessible and appropriately transferred.

1. **Intellectual Property**

During the transition process of the Apelo Dental Clinic System Project, it is crucial to give careful thought to the management of intellectual property (IP) to facilitate a seamless transfer of all pertinent documentation, supplier and subcontractor details, service agreements, as well as original designs or plans. Intellectual property entails various legal considerations and may involve the requirement of non-disclosure agreements (NDAs) between the current party and the customer.

The following steps will be taken to ensure proper handling of intellectual property during the transition:

1. Identification of all relevant intellectual property:

All intellectual property related to the project will be identified, including but not limited to design documents, patents, trademarks, copyrights, software code, and any proprietary information or trade secrets.

1. Evaluation of contractual agreements:

The current contractual agreements about the ownership and transfer of intellectual property will be examined and assessed to guarantee adherence during the transition.

1. Negotiation of new agreements:

If there are any discrepancies or inadequacies in the current agreements, new agreements will be negotiated among the incumbent, new contractor, and customer to ensure the appropriate ownership and transfer of all intellectual property.

1. Protection of intellectual property:

Throughout the transition period, adequate safeguards, such as non-disclosure agreements (NDAs) and other legal measures, will be implemented to ensure the protection of all intellectual property.

1. Transfer of intellectual property:

Once the transition process is finalized, the transfer of all pertinent intellectual property will be carried out by the contractual agreements in effect. The intellectual property will be transferred to the new contractor, the customer, or retained by the incumbent, depending on the terms specified in the agreements.

By following these steps, the Apelo Dental Clinic System Project can ensure a smooth and secure transition of all intellectual property related to the project.

1. **User Accounts and Passwords**

As part of the transition plan for the Apelo Dental Clinic System project, it is important to address the transition of user accounts and passwords. The following details the steps and considerations for this aspect of the property transition:

1. **User Account Inventory**

* Firstly, it is essential to create a detailed inventory that encompasses all user accounts and their corresponding privileges. This inventory should encompass both internal and external users, including system administrators, third-party vendors, and end users. Additionally, the inventory should clearly indicate which accounts are inactive or no longer required for the system.

1. **Password Security**

* Maintaining security during the transition is crucial, and this can be achieved by resetting or disabling all user passwords. By taking this step, unauthorized access to the system and its data can be prevented. Before the transition takes place, users should be informed to change their passwords to a temporary one provided to them. Subsequently, during the transition, the new contractor or system owner should enforce the creation of new, strong passwords by all users.

1. **Account Transition and Disablement**

* After addressing the inventory and password security measures, the subsequent task is to determine which accounts will undergo the transition process and which accounts will be deactivated. The transition plan should clearly outline the individuals entrusted with overseeing the transfer of accounts and passwords, ensuring a seamless transition.
* If there is a need to disable accounts, the transition plan should provide comprehensive information regarding the process and procedures for deactivating accounts. This is crucial to ensure that the access rights of terminated employees, contractors, or third-party vendors are promptly revoked.

1. **Table of User Accounts**

* Within the transition plan, it is necessary to include a table comprising all user accounts that will either undergo the transition or be disabled. This table should encompass the username, associated email address, and corresponding privileges or access rights for each account. Additionally, the table should specify whether the account will be transitioned or disabled, accompanied by any specific instructions for the transition process.

To conclude, the transfer of user accounts and passwords is a critical component of the Apelo Dental Clinic project's property transition plan. By adhering to a thorough inventory, implementing password security measures, following account transition and disablement procedures, and furnishing a user account table, a seamless and secure transition can be accomplished.

### Knowledge Transfer

**Documentation/Manuals:**

* The project team and senior developer will provide documentation and manuals to the Apelo Dental Clinic.
* The documentation package will encompass an overview of the project, system architecture details, functional requirements, technical specifications, and other pertinent information. This documentation will aid the Apelo Dental Clinic staff in gaining a comprehensive understanding of the system and its functionality.
* The manuals will offer detailed, sequential guidance on executing specific tasks associated with the system.

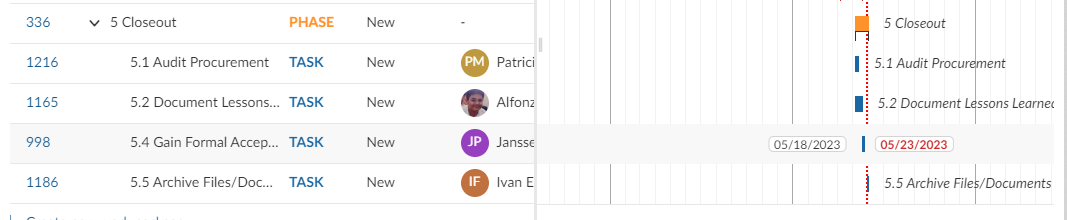
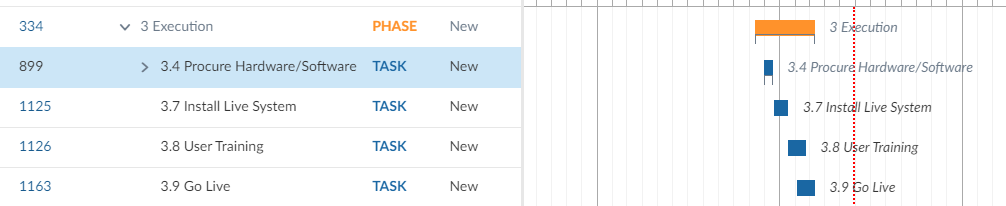
**Training:**

* The project team, along with a senior developer, will provide personalized training to the Apelo Dental Clinic to ensure a comprehensive understanding of the system and its operational procedures.
* The Apelo Dental Clinic will be granted access to online training materials and resources, which will assist them in enhancing their knowledge and skills about the system.
* The Apelo Dental Clinic will take on the responsibility of disseminating the information to their staff members, as formal classroom training or scheduled sessions may not be feasible in their dynamic and fast-paced work environment.

As an integral component of the Knowledge Transfer Plan, frequent check-ins and meetings will be arranged between the project team, senior developer, and Apelo Dental Clinic. These interactions aim to facilitate a successful transfer of knowledge and address any questions or concerns promptly. Furthermore, any modifications or updates to the system will be documented and shared with the Apelo Dental Clinic staff, ensuring that they have access to the latest information.

### Schedule

Figure 4: Execution and Closeout Schedule



### Handover and Acceptance

Upon the finalization of the transition plan, which incorporates all essential documentation and deliverables, the process of handover and acceptance will commence. The project team will subsequently arrange a formal meeting with the project sponsor and other relevant stakeholders to thoroughly assess the transition plan and ensure that all necessary requirements have been met.

During the handover meeting, the project team will present the finalized transition plan, along with all the necessary documentation and deliverables, to the project sponsor and other relevant stakeholders. Subsequently, the project sponsor and stakeholders will carefully examine the materials and engage in discussions regarding any unresolved matters or concerns.

Upon the resolution of all outstanding matters, the project sponsor and stakeholders will proceed to sign the formal acceptance document. This document serves as proof that the handover process has been effectively completed. The acceptance document will also feature a checklist encompassing all the necessary deliverables and documentation, accompanied by the signatures of all stakeholders who have reviewed and granted approval for the materials.

The handover and acceptance section will additionally delineate the procedures for addressing any lingering issues or concerns that may arise after the completion of the handover. This may entail following a formal dispute resolution process or implementing corrective actions to rectify any identified deficiencies.

Overall, the handover and acceptance section within the contract transition out plan will offer a comprehensive and explicit roadmap for accomplishing the handover process, guaranteeing the contentment of all stakeholders with the outcomes.

# Sponsor Acceptance

This project acceptance document establishes formal acceptance of all the deliverables for the Apelo Dental Clinic System project. The Apelo Dental Clinic System project has met all the acceptance criteria as defined in the requirements document and project scope statement.

Sponsor Acceptance

Approved by Project Sponsor: **Date:**

Dr. Denroe Apelo

Owner, Apelo Dental Clinic

# Appendices

## Project Cost Summary

Approved Budget: PHP 430,161.78

|  |  |  |
| --- | --- | --- |
|  | **Duration /Frequency and Trigger** | **Total Cost in PHP** |
| **Direct Costs** | | |
| Manpower Cost | 9 months | 89,161.78 |
| Maintenance Cost | 1, *on-call* | 15,500.00 |
| Contingency Cost | 9 months | 117,000.00 |
| **Total Project Cost** | *for 9 months with 1 maintenance* | **221,161.78** |
| **Miscellaneous** | | |
| Equipment | Bought once | 203,000.00 |
| Subscription | Once yearly | 6,000.00 |
| **Total Miscellaneous Cost** | *for the first year* | **209,000.00** |

Table 23: Project Cost Summary

## Project Methodology

A picture containing text, screenshot, diagram, rectangle

Description automatically generated

Figure 5: Project Methodology

## System Requirements Specification

### System Requirements for Development

|  |  |
| --- | --- |
| **Software** | **Specifications** |
| Operating System | Windows 10 or later (32/64 bit) |
| Visual Studio Code | Version 1.72.1 |
| Browser | Chrome(Windows 80.0.3987.87, macOs version: 80.0.3987.87, Linux Version: 80.0.3987.87, Android Version 80.0.3987.87, Ios 80.0.3987.88)    Safari (macOS Laptops and Desktops version: 13.0, iOs iPhone, iPad) |
| XAMPP | Version 8.0.28 |
| Laravel | Version 8.2 |
| GitHub | Version 3.4 |

Table 24: System Requirements for Development

### System Requirements for Deployment

|  |  |
| --- | --- |
| **Software** | **Specifications** |
| Operating System | Windows 10 or later (32/64 bit) |
| Browser | Chrome (Windows 80.0.3987.87, macOs version: 80.0.3987.87, Linux Version: 80.0.3987.87, Android Version 80.0.3987.87, Ios 80.0.3987.88)    Safari (macOS Laptops and Desktops version: 13.0, iOs iPhone, iPad) |
| XAMPP | Version 8.0.28 |

Table 25: System Requirements for Deployment

## Development Tool Specification

### Development Tools Specification

|  |  |
| --- | --- |
| **Hardware** | **Specifications** |
| PC or Laptop | Processor – dual core @ 2.4 GHz (i5 or i7 Intel Processor or equivalent AMD), 64 bits |
| RAM – 8 GB |  |
| Free disk space – 2 GB |  |
| With access to Wi-Fi or LAN |  |
| Internet Connection | At least 3mbps |
| Atleast 4g/LTE connection |  |

Table 26: Development Tools Specification

### Deployment Tools Specification

|  |  |
| --- | --- |
| **Hardware** | **Specifications** |
| PC or Laptop | Processor – dual core @ 2.4 GHz (i5 or i7 Intel Processor or equivalent AMD), 64 bits |
| RAM – 8 GB |  |
| Free disk space – 1 GB |  |
| With access to Wi-Fi or LAN |  |
| Internet Connection | At least 3mbps |
| Preferably DSL |  |
| Atleast 4g/LTE connection |  |

Table 27: Deployment Tools Specification

## WBS Dictionary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level** | **WBS Code** | **Element Name** | **Definition** | **Duration** |
| 1 | 1 | ADENICSY | All work to implement a new widget management system. | 28 days |
| 2 | 1.1 | Initiation | The work to initiate the project. | 2 days |
| 3 | 1.1.1 | Evaluation & Recommendations | Working group to evaluate solution sets and make recommendations. | 7 days |
| 3 | 1.1.2 | Develop Project Charter | Project Manager to develop the Project Charter. | 10 days |
| 3 | 1.1.3 | Deliverable: Submit Project Charter | Project Charter is delivered to the Project Sponsor. | 1 day |
| 3 | 1.1.4 | Project Sponsor Reviews Project Charter | Project sponsor reviews the Project Charter. | 1 day |
| 3 | 1.1.5 | Project Charter Signed/Approved | The Project Sponsor signs the Project Charter which authorizes the Project Manager to move to the Planning Process. | 1 day |
| 2 | 1.2 | Planning | The work for the planning process for the project. | 21 days |
| 3 | 1.2.1 | Create Preliminary Scope Statement | Project Manager creates a Preliminary Scope Statement. | 5 days |
| 3 | 1.2.2 | Determine Project Team | The Project Manager determines the project team and requests the resources. | 14 days |
| 3 | 1.2.3 | Project Team Kickoff Meeting | The planning process officially started with a project kickoff meeting including the Project Manager, Project Team, and Project Sponsor (optional). | 7 days |
| 3 | 1.2.4 | Develop Project Plan | Under the direction of the Project Manager the team develops the project plan. | 7 days |
| 3 | 1.2.5 | Submit Project Plan | Project Manager submits the project plan for approval. | 3 days |
| 3 | 1.2.6 | Milestone: Project Plan Approval | The project plan is approved, and the Project Manager has permission to proceed to execute the project according to the project plan. | 3 days |
| 2 | 1.3 | Execution | Work involved executing the project. | 14 days |
| 3 | 1.3.1 | Project Kickoff Meeting | Project Manager conducts a formal kick off meeting with the project team, project stakeholders and project sponsor. | 2 days |
| 3 | 1.3.2 | Verify & Validate User Requirements | The original user requirements are reviewed by the project manager and team, then validated with the users/stakeholders. This is where additional clarification may be needed. | 7 days |
| 3 | 1.3.3 | Design System | The technical resources design the new widget management system. | 21 days |
| 3 | 1.3.4 | Procure Hardware/Software | The procurement of all hardware, software and facilities needed for the project. | 25 days |
| 3 | 1.3.5 | Install Development System | Team installs a development system for testing and customizations of user interfaces. | 10 days |
| 3 | 1.3.6 | Testing Phase | The system is tested with a select set of users. | 14 days |
| 3 | 1.3.7 | Install Live System | The actual system is installed and configured. | 10 days |
| 3 | 1.3.8 | User Training | All users are provided with a four-hour training class. Additionally, managers are provided with an additional two-hour class to cover advanced reporting. | 14 days |
| 3 | 1.3.9 | Go Live | System goes live with all users. | 2 days |
| 2 | 1.4 | Control | The work involved the control process of the project. | 3 days |
| 3 | 1.4.1 | Project Management | Overall project management for the project. | 2 days |
| 3 | 1.4.2 | Project Status Meetings | Weekly team status meetings. | 7 days |
| 3 | 1.4.3 | Risk Management | Risk management efforts as defined in the Risk Management Plan. | 3 days |
| 3 | 1.4.4 | Update Project Management Plan | Project Manager updates the Project Management Plan as the project progresses. | 5 days |
| 2 | 1.5 | Closeout | The work to close-out the project. | 2 days |
| 3 | 1.5.1 | Audit Procurement | An audit of all hardware and software procured for the project ensures that all procured products are accounted for and in the asset management system. | 3 days |
| 3 | 1.5.2 | Document Lessons Learned | The Project Manager and the team perform a lesson-learned meeting and document the lessons learned for the project. | 1 day |
| 3 | 1.5.3 | Update Files/Records | All files and records are updated to reflect the widget management system. | 10 days |
| 3 | 1.5.4 | Gain Formal Acceptance | The Project Sponsor formally accepts the project by signing the acceptance document included in the project plan. | 4 days |
| 3 | 1.5.5 | Archive Files/Documents | All project related files and documents are formally archived. | 4 days |
| 3 | 1.5.6 | Post User Support | The team provides support to the staff as they continue to use the system after the closure | 7 days |

Table 28: WBS Dictionary

## Detailed Schedule

Table 29: Detailed Schedule (Part 1)

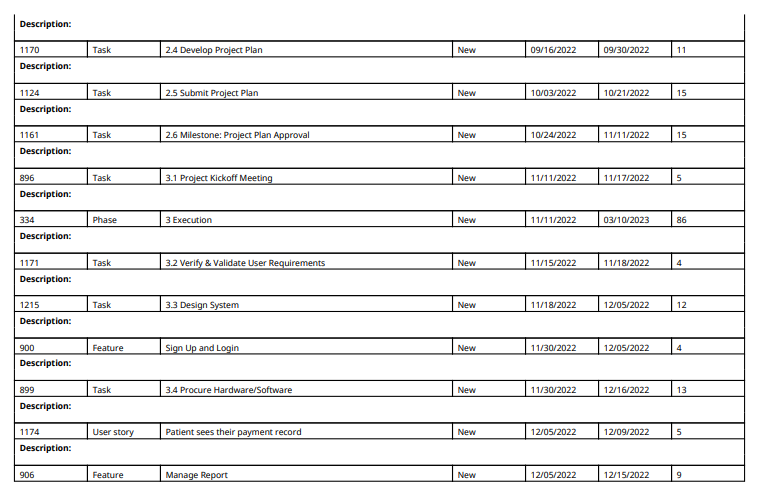
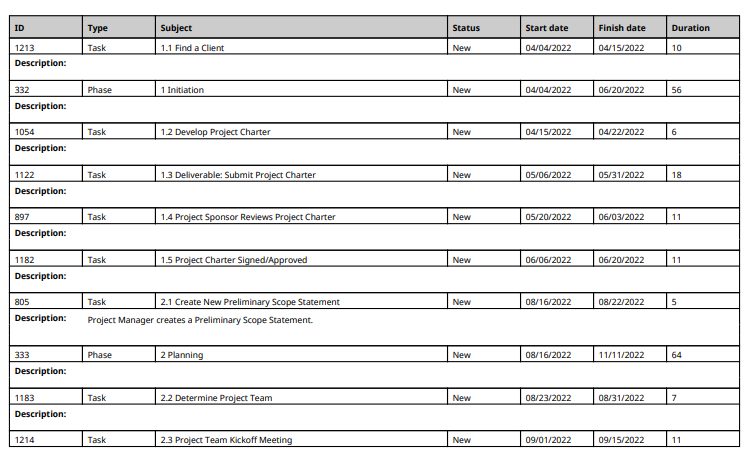
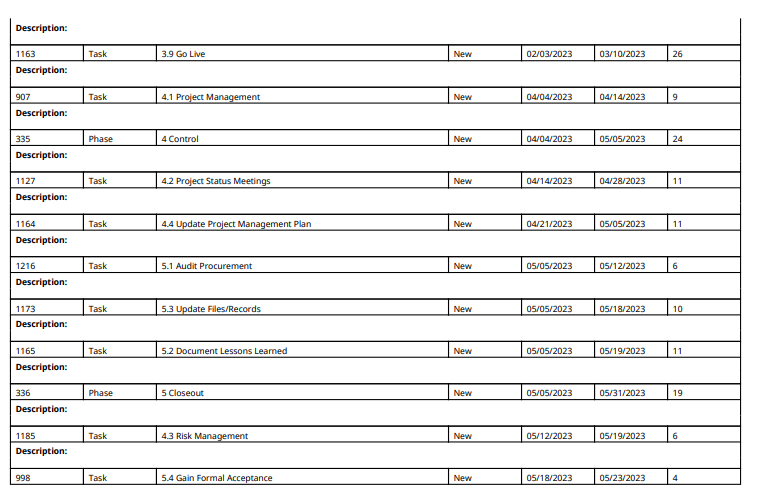


Table 30: Detailed Schedule (Part 2)



## Detailed Cost

Table 31: Detailed Cost