**Business Case**

**<Asia Pacific College Clinic System>**

**Asia Pacific College**

**ASIA PACIFIC COLLEGE 3 Humabon Place,**

**Magallanes, Makati City 1232 PH**

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# Executive Summary

## Issue

The current system of Asia Pacific College’s Clinic for managing health records and inventory is inefficient and time-consuming because of this it is negatively impacting the efficiency and effectiveness of the health services we provide to the students and faculty. The process of managing physical records is consuming valuable clinic space and is prone to errors, while the lack of a scheduling system has resulted in walk-in patients and long queues, creating an unsatisfactory experience for patients. The process for generating summary reports of services is also time-consuming and requires significant manual effort. Additionally, the current communication process for notifying students of appointment cancellations is inadequate, leading to confusion and frustration among our student population. To address these issues and improve the overall management of health records, scheduling, and communication, it is necessary to implement a new and improved system that will streamline these processes, reduce errors, and enhance the overall experience to not only the patients but also the clinic.

## Anticipated Outcomes

The proposed project to digitize the health record system and add a scheduling system is expected to result in significant improvements in the efficiency and effectiveness of the health services provided by the APC clinic. By implementing features such as CRUD (Create, Read, Update, Delete) operations for health records, the system will provide a faster and more accurate management of health records generated by the clinic's services such as student physical check-ups, dental examinations, consultations, first aid, and emergency treatment. The new system will enable clinic staff to easily access and update patient records, reducing the time required for record-keeping and allowing for more efficient patient care.

The addition of a scheduling system with a table and calendar view of appointment schedules will allow users to manage their appointments, avoiding scheduling conflicts and reducing wait times easily and efficiently for walk-in patients. As a result, the overall experience for students and faculty using the clinic's services is expected to improve significantly, leading to increased satisfaction and a higher level of trust in the clinic's ability to provide quality care. Furthermore, the digitization of health records will allow for easier sharing of information with other medical providers, as well as a more secure and efficient system for storing and accessing records. The project is anticipated to result in a more streamlined and effective health record and scheduling system, improving the clinic's ability to provide high-quality health services to its student population, and enabling the clinic to better serve the healthcare needs of the campus community.

## Recommendation

Based on the analysis of the current health record and scheduling system, it is recommended that Asia Pacific College invest in a new digitized health record and scheduling system. This new system will eliminate physical records, free up valuable clinic space, and enable easier sharing of information with other medical providers. In addition, the implementation of a scheduling system with a table and calendar view of appointment schedules will reduce wait times for patients and improve the overall experience for students.

While SMS notification was not implemented due to budget constraints, it is recommended that APC implement it, if possible, to further improve patient experience and streamline communication with students regarding their appointments. Despite this limitation, the recommended investment in this project is still expected to result in significant improvements in the efficiency and effectiveness of the health services provided by Asia Pacific College's clinic, leading to increased satisfaction and a higher level of trust in the clinic's ability to provide quality care. Therefore, it is recommended that Asia Pacific College move forward with the proposed project and allocate the necessary resources to ensure its successful implementation.

## Justification

The proposed project to digitize the health record system and add a scheduling system is necessary to address the current inefficiencies and limitations in the clinic's health record and scheduling processes. The current system is time-consuming and error-prone, leading to long wait times for walk-in patients, physical records that consume valuable clinic space, and a lack of timely communication with students regarding appointment cancellations. The absence of a scheduling system has resulted in an unmanageable queue of patients and has caused students to walk in for their physical and dental check-ups, which is not an optimal solution. Furthermore, the manual process of generating summary reports of services is time-consuming, which detracts from the quality of patient care and limits the clinic's ability to respond to the healthcare needs of the campus community.

The proposed project will address these issues by providing faster and more efficient management of health records generated by the clinic's services, such as student physical check-ups, dental examinations, consultations, first aid, emergency treatment. The digitization of health records will eliminate the need for physical records and free up valuable clinic space while enabling easier sharing of information with other medical providers. The addition of a scheduling system will reduce wait times for patients and provide a more efficient way of managing appointments, avoiding scheduling conflicts and improving the overall experience for students. These improvements are expected to lead to increased satisfaction and a higher level of trust in the clinic's ability to provide quality care, enhancing the reputation of the clinic and the university.

# 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. | Jan Patrick M. Navarrete |
| Project Manager | Oversee the business case and be responsible for executing the project. Assigned for quality assurance. | John Angel Manahan |
| Project Team Member | Oversee the project's process improvement and documentation. | Kurt Jordan Cadenas |
| Project Team Member | Provide technical support for the project. | Churchill Capagngan |
| Project Team Member | Provide technical support for the project. | Darcy Kaizer Medina |
| Executive Sponsor | Provide guidance to the project. | Jojo F. Castillo |

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# Problem Definition

## Problem Statement

Asia Pacific College’s Clinic is encountering problems when it comes to handling patient records, that includes managing and organizing the records due that the current method they are using on making the records are through traditional means of pen and paper. This kind of method can be prone to human error or data loss as paper type record can be vulnerable to damages from accidents such as water spill, crumpling, and misplacement. This is also relevant for the inventory record as they need to manually update the clinic’s inventory to track the items being distributed to the patient in need.

One thing the clinic staff is concerned about is the number of people who will undergo medical exams during the enrollment period, as Asia Pacific College clinic only has a small amount of workforce and can be overrun by the people. This can cause delays for the people who wish to enroll.

## Organizational Impact

The implementation of this project could have a significant impact on the clinic of Asia Pacific College as it will allow the staff to organize the records and reduce the time spent looking for specific data. This also reduces the staff's workload and organizes the queuing of patients coming to the clinic. Overall, this project will be able to digitize the clinic of Asia Pacific College, making their work more efficient without overthinking that much on human-related errors.

## Technology Migration

The migration process of existing physical records will undergo scanning by the staff, while the database will be integrated into Asia Pacific College’s Database.

# Project Overview

## Project Description

The goal of the project is to digitize the handling of health records in Asia Pacific College’s clinic, that would allow the staff to monitor, organize, and update the said records. As well as having an appointment system to control the patient’s queue, avoiding the time consumed for the patient side as well as minimizing the crowd that will fall in line in the clinic. This will also provide an inventory system where the clinic staff can monitor the stock of medicine and ask for a requisition request when needed.

## Goals and Objectives

E-Cliniq aims to automate the record-keeping processes and add an appointment system to Asia Pacific College’s clinic, which would improve the efficiency and handling time of processes. This system addresses the common business problem of unorganized queues, manual record-keeping, and inventory management, which can lead to human errors. By implementing the system, the school’s clinic can achieve the following objectives:

* Lessen the time when fetching health records from the tables in the system.
* Migrate 100% of patient records to a digital database integrated to the existing database of Asia Pacific College.
* Inventory of medicine would be tracked digitally for restocking and management.
* Provide a way to schedule appointments online which will also give notifications.
* Provide user training to the clinic staff to ensure effective implementation and adoption of the system.

## Project Performance

The system project will be considered successful if it achieves the following performance metrics:

* **Quick fetching of records and security of records:** This could be measured by the seconds it will take to search for a health record compared to searching for it in the filing cabinets.
* **Reduction of paper used:** This could be measured when the health records are migrated 100% to the digital database integrated into the existing database of Asia Pacific College.
* **Decrease inventory management time:** This could be measured by the seconds it will take to manage the inventory compared to the hours it will take to manually count all the stocks.
* **Better appointment experience:** This could be measured through how many people will queue in a day compared to how many people walk in when there was no appointment system implemented.
* **Effective implementation:** This could be measured by comparing the cost of maintaining the integrated platform compared to efficiency of it.
* **User adoption:** This could be measured by the percentage of users actively using the integrated system.

## The E-Cliniq project will be deemed successful if it meets these performance measures, accomplishing its objectives of increasing operational effectiveness and improving patient experience in Asia Pacific College's clinic.

## Project Assumptions

Here are the preliminary assumptions to the proposed system:

* 1. The project team will have access to all data and materials from the clinic required for the system's development, design, and implementation.
  2. Asia Pacific College will be the one to implement the system, which has reliable internet connectivity and appropriate hardware and software to support the digital platform.
  3. The clinic staff and patients are willing to adopt and learn the new system, with minimal resistance to change.
  4. The project team possesses the technical and management skills required to build and implement the system on schedule, within budget, and with the least possible interference with the school clinics' regular operations.
  5. The system will abide by all applicable data privacy and security laws, protecting the privacy and accuracy 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 the school’s database to synchronize student data to the application.
  8. Both clinic personnel and patients will benefit from the system's user-friendly interface, which will require little training to operate properly.

## Project Constraints

Here are the preliminary constraints to the proposed system:

1. The system is not 100% working at the moment, which may cause some delay in the deployment of the system.
2. E-Cliniq must be able to integrate with the existing system of the school, which is the RAMS portal, the project team needs to communicate with the developers working on the RAMS portal to be able to integrate the database to the system.
3. Data privacy and security must comply with the privacy and security regulations the school implements with all the data that circulates within their system.
4. The system must be user-friendly and accessible to the clinic staff, patients, and other relevant stakeholders by providing features that will allow the users to access the system anytime, and anywhere.
5. Appropriate training and support should be provided to all relevant stakeholders.
6. Development, implementation, and maintenance of E-Cliniq requires investment such as being able to send over notifications and alerts through SMS that will consume cellular load. The project should be carefully budgeted to ensure that it can be used by the clinic with small cost but high efficiency.

## Major Project Milestones

Here are the major project milestones to the proposed system:

1. Interview and assessment with the client and nurse to identify what features are needed in the system and other things such as workflow, data collection, and reporting needs by April 29, 2022.
2. Designing and developing the E-Cliniq system which includes an easy-to-understand user interface, data entry, storage, and retrieval feature. The system should be designed to meet the specific needs of the school clinic by May 16, 2023.
3. Have the system be tested by the relevant stakeholders that will regularly use the said application in development to ensure that the requirements are met and working as intended which may include user acceptance testing and functional testing by May 23, 2023.
4. Implementation of E-Cliniq and provide proper training to operate the system properly to clinic staff and other relevant stakeholders by May 31, 2023.
5. Migrate existing paper records to the system and integrate the database of RAMS portal to E-Cliniq to ensure that the data is up to date by June 7, 2023.
6. Launching the system for the school to use by June 10, 2023.
7. Maintenance and updates on E-Cliniq which includes bug fixing, adding features as needed, troubleshooting, and addressing user feedback by June 26, 2023, onwards.

# Strategic Alignment

By aligning the E-Cliniq system with the overall goals and objectives of Asia Pacific College’s clinic, the clinic will be able to maximize efficiency and increase productivity of the stakeholders involved and it will ensure that it will contribute to the long-term plans of the clinic.

**APC’s clinic aims to digitize all existing and future medical records of students and employees.**

The system project aligns with this goal by having an online repository of all existing medical records by having them scanned to the system and all future medical records which will help the clinic save space and search for records in a timely manner. The project will contribute to the overall success of the clinic and help them become efficient.

**APC’s clinic aims to continuously innovate and improve the services they provide to meet the changing needs of the patients.**

The system project aligns with this goal by digitizing processes that the clinic used to do manually which will allow the clinic staff to effectively minimize search times of records and manage appointments to avoid long queues of walk-in patients. With this, the project will help the clinic be competitive and efficient.

**APC’s clinic aims to enhance the satisfaction of the patients.**

The project aligns with this goal by improving the experience of patients in terms of quality and time spent queueing to the clinic which will help minimize queues and maximize the quality of services. With this, the project will continue to satisfy the patients of APC’s clinic.

# Cost Benefit Analysis

Many consider this one of the most important parts of a business case as it is often the costs or savings a project yields that win final approval to go forward. It is important to quantify the financial benefits of the project as much as possible in the business case. This is usually done in the form of a cost-benefit analysis. The purpose of this is to illustrate the costs of the project and compare them with the benefits and savings to determine if the project is worth pursuing.

# Alternatives Analysis

An alternative analysis for E-Cliniq system for Asia Pacific College’s clinic include the following options:

**Option 1: Do nothing (status quo)**

In this option, the school would continue to use the traditional system of keeping physical copies of medical records in filing cabinets, have patients walk in regularly, and do inventory manually.

**Pros:** No upfront costs or disruption to existing processes and systems.

**Cons:** Potential for ongoing challenges related to the current manual process, including difficulties, and long searching times for specific health records, long queues in the clinic and long times in processing the inventory of the clinic which causes delays and inaccuracy. These issues could result in inefficiency.

# Approvals

The project approval should come from the project sponsor and key stakeholder – Mr. Jojo F. Castillo, the Clinic head of Asia Pacific College.