

ACTIVITY 5

TOPIC: Development of Automated Hospital Management System for Ofelia Mendoza

Maternity and General Hospital

CHAPTER I

INTRODUCTION

(Opening statement about the main topic leading to your specific topic)

Automated Management System has been an important part of every institution that due to its positive outcome. It grants optimization and ease to the processes happening in different sectors and departments. Institutions like Hospital Institutions often have manual processes like management of patient records that covers a lot of time to accomplished that leads to a very slow workflow and burden to the employees. One of the hospitals experiencing these problems is the Ofelia Mendoza Maternity and General Hospital who still using manual system to manage processes like billing transaction, room designation, attendance management, patients record.

(Discussion on the specific topic leading to your main problem)

These manual processes often interrupts the workflow and consume a lot of time that affects to the efficiency of the hospital service. Manual processes like management of patient records and employee attendance are prone to record lost and duplication. Having inaccurate and undocumented attendance record results on mistakes on employee salary computation. On the other hand, having all the patients' record on a paper often leads to duplication, misplacement, complete lost, and space consuming documents. Besides that, the manual billing transaction has the higher possibility to cause mistakes and inaccurate computation. And also, one of the time

consuming process is the room designation of a patient. Due to that problems, the main problem of this study focuses on how to lessen the burden and the time consumed by the manual processes.

(Presentation of your main problem)

Having the management of different operation in Ofelia Mendoza Maternity and General Hospital manually operated often cause time consuming operation and, in the end, burden to the hospital's work flow. Manual operations that cause inefficiency to the hospitals service can cause problem not only to the hospital but also to the patient.

(Evidences that the problem exists)

Management of the patients' record that covers up to estimated time of 30 minutes just to retrieve a record. Storing paper patients' record is prone to misplacement and complete loss of the record. Duplication of record is also a risk that might cause data inaccuracy. On the other hand the management of employee attendance causes problems to the employee salary computation. Manual Billing transaction that consumes up to 5 to 15 minutes of time is so lengthy and might cause miscalculation. Manual checking of available rooms also consume a lot of time that covers up to 10 minutes of time just to find unoccupied one.

(Causes and Effect)

The cause and effect of this study is the manual monitoring of attendance which will result in inaccurate time records for workers. For the billing transaction, there was a time that the results have an error in computation which can lead to delay transactions. The availability of the room

or wards will have difficulty since not all the workers of OLMMGH have the access the list of rooms which will results a delay of admitting the patient. In recording of patient's information, there is a loss and duplication of the record since there are multiple health worker will record it due to shifting of the staff that can lead to inconvenience to the patients and staff. Since the medical record is in the paper, it does not last permanently which may fade or stained over the years.

(Presentation of the perceived solution to the problem and its strategy)

This project aims to develop an automated management system for Ofelia Maternity and General Hospital. The automated management system to be develop is planned to be capable of managing the attendance, billing transaction, patient record, and room designation. The features of the automated management system must be capable to have a less time consuming and more efficient processes. This system targets to lessen the time consumed by the said manual operations and gives ease to the hospital's workflow.

Purpose and Description

(Explanations or discussions of any or all of the following: the rationale, timeliness, and/or relevance of the study; possible solutions to existing problems or improvement to unsatisfactory conditions; who are the beneficiaries and what are their benefits; possible contribution to the body of knowledge, and possible implications.)

(how do they benefit)

Hospital Management System is a computer-based system that assists the providers and staff by doing their jobs and managing information linked to health care. Also having this system, it will provide proper control of all data created in health care facilities. There are some hospitals

in the Philippines that have their own system, but the majority of hospitals are still using manual procedures for things like attendance monitoring for the staff, billing transaction, room designation and patient medical records.

The Ofelia Mendoza Maternity and General Hospital (OLMMGH) is a maternity and general hospital which it specializes the needs of pregnant and postpartum women. In addition, they are also in charge of newborn babies. They have also a surgery operation and check up for in patient or out patient. OLMMGH is not yet technologically advanced, and it is still run-in manual operation. Their operation will be substantially improved if they have an automated hospital management system. The goal of this study was to assist them in becoming more organized in their work, to arrange the patient's record, to ensure efficient billing, and to protect the patients' privacy and confidential information. The health worker of OLMMGH will benefit from this study since it will expedite their job and processes connected to patient records and other hospital needs.

General Objective

(There should be a general statement of the whole problem)

The objective of this study was to develop an automated hospital management for Ofelia Mendoza Maternity and General Hospital and to lessen the manual operation. The findings provided is to facilitate the process and accessible to the users.

Specific Objectives

(Specific objectives which the general problem is broken-up)

1. To determine the flaws of Ofelia Mendoza Maternity and General Hospital in the former manual operation.
2. To perceive how to lessen the manual operation on Ofelia Mendoza Maternity and General Hospital.
3. To assess the ability to operate a well-developed hospital management such as managing attendance, billing transaction, room allocation, and patient's record.

Scope and Delimitations of the Study

(What the study is all about, where and when the study is to be conducted and who the subjects are or for whom the study is being made. Also included is a brief statement of the reason why the study is conducted and how it will be resolved).

There are some delimitations present in this study. The study will focus to lessen the manual operation of Ofelia Mendoza Maternity and General Hospital in Malolos Bulacan by developing an Automated Hospital Management System. However, this study will include users who have basic knowledge of computers.

TOPIC: Kolokwi Mobile Application

CHAPTER I

INTRODUCTION

(Opening statement about the main topic leading to your specific topic)

The rise of the internet, especially this generation, introduced us into a virtual world that allowed a much more convenient and efficient way of living for the people who use it on a regular basis. One of the things that was made possible with the help of this is the ability to exchange messages and information with others through the help of the internet. The rise of this way of communication started out as a way to exchange messages to people who are distant, but as time went by, it has evolved and has been integrated to become one of the mediums that we use to do several things in cyberspace such as online learning, virtual meetings, or a lot more. Instant messaging apps have become so important to people that most of us use it on a daily basis, especially during this time where people are forced to stay indoors and avoid social spaces as much as possible. One of the situations that utilizes instant messaging apps in this present time is during online learning or virtual meetings between students, faculty, and professionals.

(Discussion on the specific topic leading to your main problem)

Messaging apps offer a lot of functionalities such as file sharing, messaging, voice calls over the internet and more but these functions are not optimized for use in a formal context such as education. There are a lot of functions that have been integrated into messaging apps that enable

users to communicate more than ever but these functions often have restrictions that hinder users from using the app in a more optimal way for situations such as online learning. And with these in mind, the researchers have found out there are burdens and problems with using different virtual classroom and messaging applications for use in formal contexts.

(Presentation of your main problem)

Existing Instant Messaging applications include the same main functions that a messaging application should provide but they are also able to integrate functions that enable them to be identified as a unique application. Although there are several applications that are used for messaging in the formal contexts, there still seems to be no available app that caters to the needs of users for online learning and other formal interactions. The burdens of using multiple apps to access different functionalities and using a single app to be for multiple contexts are the problems that the researchers have determined.

(Evidences that the problem exists)

Most of the existing messaging applications put a limitation on file size or types that are allowed to be sent. One application has set a 25mb file size limit whenever you are sending a file to another person or a group, and it also has exceptions to what types of files you can send such as not being able to send “.rar’ files. Also, online learning enables students to have more flexibility on their schedules and may have more time for other activities, but there are still situations that hinder students or faculty to be able to use their time for online learning more efficiently such as miscommunication while using applications. Users have been using messaging applications for

communication with students or faculty and with that, they are forced to include private threads with other threads that are related to school. This makes it confusing to other people since they have to navigate which threads or messages are private and which are for education purposes and that creates confusion that will hinder people to be more engaged in this learning environment.

(Causes and Effect)

The current existing messaging applications limit the file type and file size that can be sent which result users to use multiple applications that will let them send those files that can't be sent in the messaging application they are using. Using different platforms at the same time to share learning materials leads to confusion. Instructors and students often use personal accounts in classroom related group chats, it invades their personal space which causes personal messages unnoticed. It is hard to track each message especially when there are so many classroom related group chats active. Also, students experience difficulty in locating important updates and announcements since they're using personal accounts, there are many unrelated chats in classroom related group chat that cover up those updates and announcements. The outcome of these obscured important messages by other unrelated messages is that there are some students who are unable to do what needs to be done in time.

(Presentation of the perceived solution to the problem and its strategy)

The study aims to develop a mobile application. The proposed mobile application is capable and efficient in file sharing in terms of its type and size, effective in relaying messages such as updates and announcements.

Purpose and Description

(Explanations or discussions of any or all of the following: the rationale, timeliness, and/or relevance of the study; possible solutions to existing problems or improvement to unsatisfactory conditions; who are the beneficiaries and what are their benefits; possible contribution to the body of knowledge, and possible implications.)

(how do they benefit)

The Kolokwi messaging application aims to provide functions that are optimized for use in education and other possible formal situations. Developing this app enables its users to have the freedom of communication with peers while also containing functions that improve the quality of the user's education environment. Having different functions such as being able to send files that isn't as limited as others in terms of type or size, or functions that enable users to navigate through important messages or announcements quickly while reducing the difficulty of scrolling and filtering of other normal messages will enable students and faculty to be able to study and teach more freely and efficiently. The students and faculty, especially during the pandemic, were forced to integrate online learning in order to avoid the spread of diseases and while it may have its benefits, other people struggle more during this period and may have difficulties embracing this new approach to learning. And while it may be an online learning environment, people have different ways of being involved in this type of education such as differences in the types of computing devices, apps, and ways of accessing the internet. and one of the solutions that we have considered is being able to provide a single app that combines

different functions in order to save memory space on computing devices while still being able to be as functional as other applications but also be an application with an identity to help people in embracing this online learning approach and improve their communication with peers.

General Objective

(There should be a general statement of the whole problem)

The objective of developing Kolokwi Mobile Application is to improve the quality of learning environments of both the students and educators.

Specific Objectives

(Specific objectives which the general problem is broken-up)

1. To design and develop Kolokwi Mobile Application.
2. To integrate functions and features that will help in the learning environments of students and faculty, including messaging functions, file upload, and notifications for important announcements
3. To develop a system that will remove the difficulty in navigation of both chat groups and specific messages that result from getting mixed up with personal and informal messages.

Scope and Delimitations of the Study

(What the study is all about, where and when the study is to be conducted and who the subjects are or for whom the study is being made. Also included is a brief statement of the reason why the study is conducted and how it will be resolved).

The aim of this research is to develop an application that is way more efficient than the existing messaging and file sharing systems which schools and universities currently use. The study focuses on integrating the features of messaging and file sharing to give ease and be more effective for online learning and communication.

Topic: Dental Clinic management system for Daily Care Dental clinic

CHAPTER I

INTRODUCTION

(Opening statement about the main topic leading to your specific topic)

Web-based management system has been an effective way of managing businesses specially for health-related institutions. It reduces the work and it simplifies the things that sometimes take a lot of effort to do or to finish. It can also improve productivity and competitiveness of an institution. Health-related institutions such as dental clinics that does not have an electronic management system mainly relies on manual management system. Manual management system includes managing records of the patients, scheduling of appointments and billing transactions etc. Daily Care Dental Clinic is one of the dental clinics that still relies on manual management system.

(Discussion on the specific topic leading to your main problem)

Manual management system can cause unnecessary problems that can often be avoided by using an electronic one. Manual management of patient records are prone to data duplication and data loss. Manual billing transaction is not very practical nowadays because of Covid-19 and a lot of people are starting to prefer the use of e-wallets. The appointment for Daily Care Dental Clinic is only available via a call or a text message but most of the time, the patients just directly go to the dental clinic and queue for dental treatment or examination. The patients need to go for

registration first then wait for their turn. The patients do not have any other options. These can cause long queues and discomfort for patients who needs to wait for some time.

(Presentation of your main problem)

Generally, the manual management system in Daily Care Dental Clinic can be time consuming, costly, etc. It can also cause difficulty to the dentist and the dentist's assistant who is the one managing the appointment, patient records and the billing transaction. Moreover, it can lead to patient queues which may not be comfortable not only for patients but also for the dentist and the staff.

(Evidences that the problem exists)

According to Tufail Maryam (2018), a lot of past researchers have agreed that the main patient dissatisfaction is caused by long waiting time. The research also stated that everybody demanded a timeless and efficient medical care delivery because manual appointments and long waiting lines have formed an irritating situation for healthcare institutions. For manual management of patient record, a research entitled "Bulacan State University College of Information and Communications Technology Web-based appointment and Information Management System for Holy Cross Dental Clinic / Fernando P. Berganio Malolos, Bulacan (2018)" stated that "Keeping the patients' records manually has been a dilemma for dental clinics like Holy Cross. The secretary, who oversees these. typically faces difficulties in the storage and safekeeping of records such as personal data, dental procedures, and prescriptions, among other things. This becomes more of a predicament when the secretary needs to look for a patient's information, which sometimes gets buried deep in the pile of written records, should they set up an

appointment with the dentist.” For the billing transactions, the use of other payment options such as e-wallets, debits, etc. is becoming a viable option because a lot of Filipinos are starting to convert to the use of e-money. Moreover, according to a reporter of Philippine Daily Inquirer, Daxim L. Lucas (2020). More Filipinos are now using digital channels to conduct transactions - including critically important payments - due to the profound impact of the coronavirus pandemic on their daily lives, especially limitations on physical movement that are imposed by the crisis.

(Causes and Effect)

The manual processes that are present in Daily Care Dental Clinic are causing some problem for the dentist, dentist’s staff, and the patients. In recording and retrieving of patient’s information, a possibility of data duplication and data loss is present and it can result to delays and displeasure for dentist and the staff. Manual recorded information are prone to getting lost or destroyed by unexpected events or natural disasters. For the billing transaction, the use of cash is not very practical nowadays because of the pandemic as the virus or any type contagious diseases can be transmitted through this way and it could result into a bad experience for the patient, dentist, and staff. As for the appointments, a manual appointment scheduling can result into long queues and long waiting times which can result to patient dissatisfaction and irritation for the patients.

(Presentation of the perceived solution to the problem and its strategy)

A development of Web-based management system that will be capable of solving these present issues. Web-based management system offers a lot of benefits to the patients, dentist, and the staff. Online scheduling can eliminate the long waiting time of the patient. Electronic patient

recording can provide a more effective way of record keeping and it can also be used for faster data retrievals. Lastly, automated billing transaction can provide payment options which will be more convenient for the patient and dentist's staff.

Purpose and Description

(Explanations or discussions of any or all of the following: the rationale, timeliness, and/or relevance of the study; possible solutions to existing problems or improvement to unsatisfactory conditions; who are the beneficiaries and what are their benefits; possible contribution to the body of knowledge, and possible implications.)

(how do they benefit)

Dental-clinic management system, developed to help dentists manage their clinics efficiently and intelligently. It is based on a structured database web-based system that securely stores and regulates patients related medical data. The system aims at facilitating the process of reporting, monitoring, and measuring performance. But There are some Dental Clinic that still using manual process to manage the operation in their clinic.

Daily Care Dental Clinic Keeping your teeth meet your gums clean can prevent gum disease, while keeping your tooth surfaces clean can help you stave off cavities and gum disease and monthly checking of patient braces. The goal of this study is to improve the manual operation by using web based dental clinic management system and this system can help to organized the Patients Appointments, billing transaction and Patients Record of dental clinic.

General Objective

(There should be a general statement of the whole problem)

The objective of this study is to lessen the manual operation of the Daily Care Dental Clinic. Such as Patients Appointments, billing transaction and Patients Record of dental clinic.

Specific Objectives

(Specific objectives which the general problem is broken-up)

1. To perceive how to lessen the manual operation in Daily Care Dental Clinic.
2. To manage the flaws of the system such as Patients Appointments, billing transaction and Patients Record of dental clinic.
3. To implement the system and evaluate its performance in compliance with the current dental clinic's management requirement.

Scope and Delimitations of the Study

(What the study is all about, where and when the study is to be conducted and who the subjects are or for whom the study is being made. Also included is a brief statement of the reason why the study is conducted and how it will be resolved).

The study will provide a system that will lessen the manual operation of the dental clinic by developing a web based dental clinic management application. This study will include users who have basic knowledge of computers.