

# DEVELOPMENT OF BARANGAY HEALTHCARE MANAGEMENT SYSTEM

A Thesis

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## **INTRODUCTION**

The study focuses on the development of an integrated Barangay Healthcare Management System. The study has several important significance and potential beneficiaries. The fast development of technology has transformative changes in the healthcare sector globally. This study focused on the usability, security, interoperability, and scalability of the system. The limitation of this thesis is limited to the users who interact with the program, including doctors, patients, and admin. The Philippines is a country with a population of over a 100 million, faces differences in providing equitable and accessible healthcare services to its citizens.

## METHOD

The Barangay Healthcare Management System is designed to meet the requirements of administrative, admin and patient. The system provides doctors with several capabilities, such as the capacity to consult online with the patient and follow up checkup. The administrators have access to tools that allow them to keep an eye on and control system operations, user interactions, and user accounts, all of which are regularly examined to ascertain how the system is being utilized. The researchers presented the produced system to the respondents and described the characteristics of the Barangay Healthcare Management system. The researchers devised a survey questionnaire for respondents to assess the survey's results. The researchers then developed a detailed system design based on the requirements and expectations of the Barangay Healthcare Management System. They then developed each module or component of the system iteratively. Finally, the researchers tested the system's operation for a predetermined time. The study was designed to help help with the Web-Based Web Management System (Based on the Study Methodology of the Study System, which is based on ISO 25010) The steps to develop a Barangay Healthcare Management System using the agile model are as follows:

1. Accessed the Barangays Healthcare Management System through the website. Log in as an administrator. Conducted an actual system presentation in the chosen barangay healthcare facility. Export data to PDF, Excel, CSV, or Excel formats. Test the system using real-time users to gather their feedback and recommendations. The system should be regularly tested to ensure that it is working properly. It should be tested regularly to ensure it is properly working. The testing procedure employs Test Case Forms that encompass each module, including operational and testing protocols. The information from the filled surveys was totaled to calculate the weighted means. These entities will supply the system with inputs and get outputs from it. The study was utilized from the ISO25010 assessment tool, namely: functionality, efficiency, and compatibility, reliability, maintainability, portability, and usability. It shows how External entity ?admin interacts with the system. Any issues found during testing should be documented and reported to the appropriate personnel.

## RESULTS

The system shows the main home page of the user or the patient who visits the appointment system. The system can only store data of appointment of the patient and not the health record of the patients. The user or patient can book an appointment either visit on site or online consolation. Doctors can edit the information in the doctors' information page to change the date and time of the appointment. The patient can export the appointment data of the system by PDF, CSV, and XLSX. The users can also edit the doctors' information page by editing the information of the doctors in the Doctors' Information Page. The system can store the appointment data of the patient into a database. The system can book consultation of a patient for visit-on-site and online. The patient cannot cancel the appointment using the system. The grand weighted mean score of 2.54 implies that the respondents perceived that the system was acceptable. The test results on the accuracy and functionality of the developed system are presented in the tables that follow. This chapter contains the project description, the chapter description, and the chapter describing the project. The system has a medical check-up, dental, animal bite, pre-natal & family planning and immunization. The system can add and manage doctor's profile. The user can only book an appointment and does not have a profile. All the major indicators were rated as 'Acceptable' Usability 2.74 Very Acceptable. Functional Completeness 2.43 Fairly Acceptable. Reliability 2.61 Very acceptable. The patient appointment is confirmed.

## **DISCUSSION**

The Barangay Pinagsama Healthcare system was evaluated for functionality, efficiency, compatibility, reliability, portability, maintainability and usability. The system can book an appointment consultation for the patient either visit on- site or through online. The test result showed that the system is accurate and met its expected functionalities. The following recommendations are put forward for further improvement of the system 74.76.75.76-75.75-76-76.74-75-74.75 -76.