SAN QUINTIN LOCAL GOVERNMENT UNIT

SCHOLARSHIP MONITORING SYSTEM

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Chapter 1

INTRODUCTION

Background of the Study

Online systems can provide more details and often include graphic and multimedia information for registrants. Most registration and application websites are database systems that automate the collection, tabulation, and reporting of applicant information. Automated payment processing and confirmations also are standard features of online systems.

The data that is available to the Scholarship Monitoring System can be pulled from either of the above systems. This will not only make the process simpler for the scholars and the staff but also remove various bottlenecks and redundancy. It also weeds out false claims and sanities the system of duplicates and leakages (Gerald, 2005).

Scholarship monitoring is one of the efforts made by institutions to monitor whether the student contributes to the institution or not. Monitoring also aims to increase the capacity of its human resources through education, Universitas Muhammadiyah Magelang is one of the institutions that do this kind of monitoring. So far, monitoring activities are carried out at the end of the semester, by collecting hard files at the Student and Alumni Development Institute (LPMA) face-to-face which causes data loss and duplication.

The monitoring results are then recapitulated by the scholarship working group to determine the number of activities carried out by students to be used as a reference for the next scholarship.

This research resulted in a monitoring information system to facilitate the working group in the field of scholarships and the Chairperson of LPMA in issuing a decision

letter for further scholarship recommendations, so students can find out whether they passed or did not qualify based on the results of the monitoring (Prijayanti, Artha, & Arumi, 2020).
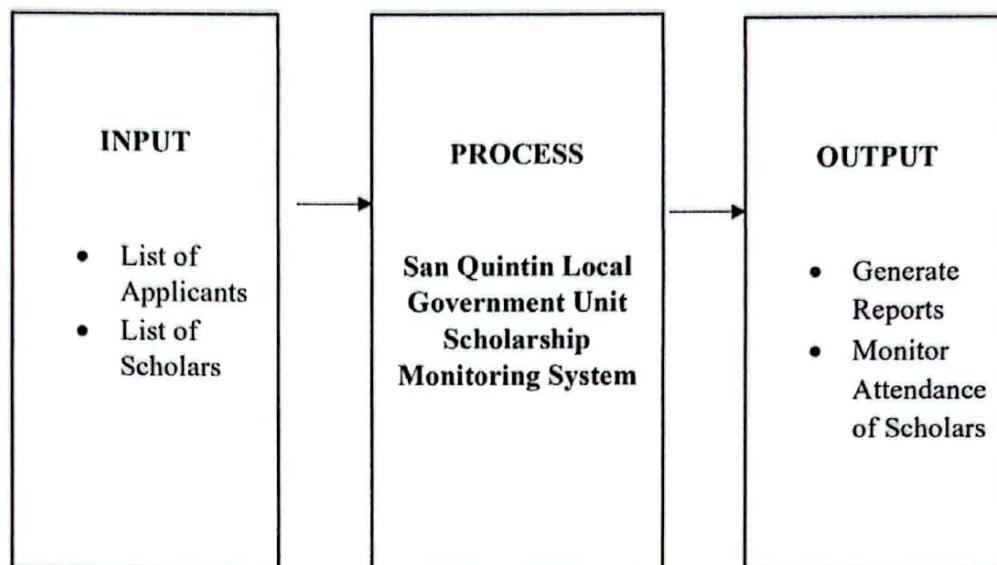
The system improved the process of checking the attendance of the scholars and monitoring their attendance at every event. The list of the scholars is stored in the system to wherein the organizer of the events has access and is in charge of monitoring the attendance of the scholars at every event.

The system improves the manual process of monitoring the attendance of scholars during the events. The manual processes which are mostly done by hand are prone to human errors. The organizer or staff in charge of monitoring may make a mistake in monitoring and keeping records of the scholars present at the event. There are also loads of paperwork and it is very time-consuming. The manual process is very ineffective and outdated.

The Local Government Unit of San Quintin, Abra uses the traditional paper-based logbook to record individuals who enter the venue to maintain the safety and security of the scholars. Using this manual way requires a lot of effort in maintaining, compiling, and organizing it. Retrieving data in the logbook can be quite difficult especially when there is a huge number of populations within the institution. In connection with this, the researchers were motivated to conduct this study to provide an enhanced security measure to the scholars.

Conceptual Framework of the Study

Figure 1 shows how the conceptual framework of the study. It will serve as the outline of how the researchers will conduct the study.

INPUT	PROCESS	OUTPUT
• List of Applicants • List of Scholars	San Quintin Local Government Unit Scholarship Monitoring System	• Generate Reports • Monitor Attendance of Scholars

Figure 1. Conceptual Framework

Objectives of the Project

This study generally aimed to develop the Scholarship Monitoring System for the scholars and staff of LGU Abra.

Specifically, this study covered the following:

1. To Identify policies and processes of scholarship monitoring and application.

2. To determine the functional and non-functional requirements

3. To evaluate the acceptability of the developed system

Scope and Limitation of the Study

This system was intended for students and applicants from San Quintin, Abra. Its functionality allows for the easy retrieval and monitoring of an ordered log information record in a monitoring system. Only authorized individuals were able to manage this system. The features of this study are restricted to an administrator log-in and a scholar log-out. The device might also keep track of how many people arrive on time for the

event. There may be printed copies of all attendance records. The Administrator can edit or delete the scholars who have finished studying. Also, the new applicant can fill up the application form.

On the other hand, the system has its limitations. The system will run online and does not run without an internet connection. Only the scholars can log in to the system, you can only log in once so when you are logging in please be careful.

Importance of the Study

The study is beneficial to the following:

The **Staff** can check and monitor the scholar's attendance easily. This system would help them lessen the time they spent checking and monitoring their attendance.

The **Scholars** can save time by putting their details in a log book. With the use of the system, it will be easier for them to get their attendance as they will just be login their username and password.

The **Researchers** enhanced their skills in computer programming, problem analysis, and research-related skills such as the preparation of documents, tabulating and presentation of the results, and data gathering techniques and procedures.

Future Researchers can use this research as a guide and reference for future students and researchers. The study can also be upgraded, updated, and revised if they chose to conduct a similar study to this capstone project

Chapter 2

METHODOLOGY

Research Design

The researchers used a descriptive developmental type of research to organize the presentation, prescription, and interpretation of the data and results served as a basis for the developed system, the San Quintin Local Government Unit Scholarship Monitoring System. Asprey *et al.* (2020) describe that descriptive research provides important information about the population or phenomenon being studied. When conducting descriptive research, researchers should not try to change the subject of the study to identify cause-and-effect links. The descriptive method of research refers to the type of research that is aimed at obtaining information on the current state of phenomena. This type of research sets out to provide an accurate profile of situations, people, or events (Rahi, 2017). Descriptive research gathers quantifiable information that can be used for statistical inference on data analysis. With the help of this research methodology, the researcher gains a better understanding of the record situation at the San Quintin LGU. The researchers used this method to learn more about the scholarship of the San Quintin. The researchers then formulated and develop the system through analysis, interpretation, and determination of its flaws. All the gathered information through this method will be analyzed, interpreted, and integrated into the proposed system. A descriptive research design can use a wide variety of research methods to investigate one or more variables McCombes *et al.* (2022).

Software Model

The study used Agile Development Model to promote adaptive planning, evolutionary development, and early delivery for a highly iterative and incremental

approach to software development and provides additional techniques obtainable, so in that case, if there is any kind of Modify request or improvement appears at any level.

Figure 2. presents the Agile Development Model that the researchers used in the system development. As introduced by Ta (2020), agile methodology can help the project team to do their work more efficiently and effectively with reduced risk while delivering the highest quality product within the constraints of the budget that satisfies the customers' expectations.
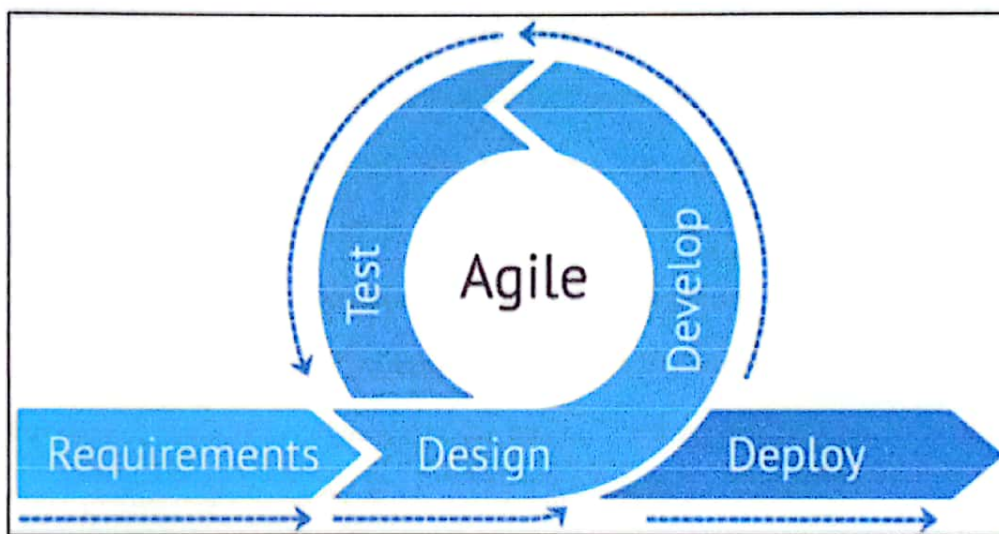
Figure 2. Agile Development Model

The five phases that will be used to implement Agile Development Model are as follows:

Requirements: In this stage, the requirements of the system were gathered and analyzed. The researchers interviewed the scholars and staff. They used both open ended and close-ended questions to gather the idea of the respondents as a basis for the system development.

Design: This phase was focused on designing the user interface, defining the process, and data design. The researchers used the Entity Relationship Diagram and Use Case Diagram in representing the system's design.

Development: In this stage, the designs created in the previous were applied. The researchers started to build the system. By using PHP, CSS, JavaScript, and HTML in creating and developing the system. PHP was the language used in server-side scripting, creating dynamic webpages, and could interact with the database. Meanwhile, HTML, CSS, and Bootstrap were used in creating and designing the content and interface of the system. A database was also utilized that acts as a repository of the data to be stored and used by the entire system. The proponents used MySQL as a medium for communicating with the XAMMP.

Testing: After the implementation, the researchers conducted four levels of testing: unit test, integration test, system test(end-to-end), and user acceptance test to assess the functionality and efficacy of the system, as well as to find out any failure or fault. Three (3) IT professionals tested the developed system before deployment.

Deployment: After a series of thorough testing of the system usability, in this stage, the system or product is now ready to be released in the San Quintin, Abra community for consumption.

Project Plan

Figure 3 presents the schedule of the project development. In this project, one of the things that was taken into consideration was time management. In this study, the researchers established a schedule for every phase of development that served as their guide in keeping organized work which helps them determine the things that need to be done within the scheduled time frame.

Activity	Oct.	Nov.	Dec.	Jan.	Feb.
Requirements	■				
Design		■			
Development			■		
Testing				■	
Deployment					

Figure 3. Project Schedule

Project Assignments

The project's team members' roles and responsibilities within the proposed system, the San Quintin Local Government Unit Scholarship Monitoring System.

Roles	Names	Functions
Project Manager	**Angela Galace**	• Responsible for coordinating with the project team.
System Analyst	**Agatha Mae Manzano**	• Coordinates the technical team's efforts in resolving challenges and ensuring practical and consistent solutions.
Developer	**Dianne Liberato Ave Jean Zapata Angela Galace**	• Responsible for managing the systems planning design team and building the project.
QA/Tester	**Agatha Mae Manzano Dianne Liberato Angela Galace**	• Responsible for checking the debugging queries of the project.
Documenter/ Technical Writer	**Jeryl Sevilla Agatha Mae Manzano**	• Responsible for checking the debugging queries of the project.

Table 1. Project Assignments

Bachelor of Science in Information Systems

Population and Locale of the Study

The respondents were selected utilizing the online Slovin's formula, the study consist of the LGU employee, and the scholars of San Quintin, Abra. The respondents of the study consist of Seventeen (17) and three (3) LGU employees under Mayor's Office. Table 2 shows the distribution of respondents.

Respondents	N
LGU Staff	3
Scholars	17
TOTAL	**20**

Table 2. Distribution of Respondents

Research Instrument

Interviews, the internet, library research, and a survey questionnaire were the tools used in the study, which also involved the participation of the grantee's scholar of San Quintin Abra. In determining the acceptability of the developed study, the proponents used the Website Analysis Measurement Inventory (WAMMI) to test the system's acceptability and was adapted from the book of Dato *et al.* (2021) entitled QR Code Based Log Monitoring System.

Data Analysis

Questionnaires and interviews were used to collect data. Mean, frequency count, and the following indicators, ease of use, satisfaction, and usefulness, were required to treat the required data to determine the acceptability of the proposed Scholarship Monitoring System for San Quintin, Abra.

Table 3 shows the descriptive interpretation of the proposed system's level of acceptability.

Point Value	Mean Range	Descriptive Rating	Descriptive Interpretation
5	4.21-5.0	Strongly Agree	Very Highly Acceptable
4	3.41-4.20	Moderately Agree	Highly Acceptable
3	2.61-3.40	Neutral	Moderately Acceptable
2	1.81-2.60	Moderately Disagree	Slightly Acceptable
1	1.00-1.80	Strongly Disagree	Not Acceptable

Table 3. Descriptive Interpretation on the Level of Acceptability of Proposed Scholarship Monitoring System for San Quintin, Abra.

The data gathered were categorized from Not Acceptable to Very Highly Acceptable. Mean ranges from 1.00-1.80 described as Strongly Disagree and interpreted as Not Acceptable, 1.81-2.60 described as Moderately Disagree and interpreted as Slightly Acceptable, 2.61-3.40 described as Neutral and interpreted as moderately acceptable, 3.41-4.20 described as Moderately Agree and interpreted as Highly Acceptable, and 4.21-5.00 described as Strongly Agree and interpreted as Very Highly Acceptable.

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