



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

**“Laboratory Log Monitoring System for Walk-in Visitors of Student of College
of Communication and Information Technology of PRMSU San Marcelino
Campus”**

BY:

REM CARL ANTONIO

JOMAR DELA CRUZ

RENZ ROY RAGADIO

JAIMIE DIANNE SIMPELO

A Thesis

**In partial Fulfillment of the Requirements
for the degree of Bachelor of Science in Computer Science
College of Communication and Information Technology
President Ramon Magsaysay State University
San Marcelino, Zambales**

June, 2023



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	--	--

	APPROVAL SHEET	
--	-----------------------	--



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to our thesis groupmates, Rem Carl Antonio, Jomar Dela Cruz, Renz Roy Ragadio and Jaimie Simpelo for their dedication, hard work, and cooperation. for their constant support, priceless advice, and exceptional teamwork throughout the whole research process. It has been a fulfilling and enriching experience to collaborate with such a creative and committed group of people.

We owe a debt of gratitude to our thesis adviser, Ms. Erika Mae A. Paje, whose advice and knowledge were extremely helpful to us during this process. Her depth of expertise, wisdom, and perceptive criticize all played a key role in the effective completion of this thesis. We consider ourselves extremely fortunate to have had the chance to work with her as mentor.

We also want to express our gratitude to the staff and professors of PRMSU CCIT CAMPUS for their support and resources, which were crucial to the successful completion of this thesis.

Additionally, we are grateful with our family, friends and to our crush for their unwavering support, understanding, and encouragement throughout this journey. Their belief in our abilities and constant motivation provided the necessary strength to overcome challenges and persevere.

To the Almighty God, we want to convey our sincere gratitude and appreciation for His gifts and direction as we successfully completed this thesis. We acknowledge His presence in our life and the consistent support He has given to our thesis group members with the utmost humility. Thank you and God Bless



EXECUTIVE SUMMARY

The Log Book Monitoring System for Walk-in Visitors at the CCIT Computer Laboratory is an innovative and efficient solution designed to track and manage the activities of students visiting the computer laboratory. It replaces the traditional paper-based log books with a digital system, providing real-time monitoring and accurate attendance tracking.

The system offers a user-friendly interface that allows CCIT students to log in and out of the laboratory using their Student ID number, streamlining the attendance process and saving time for both students and staff. The digital log book eliminates the issues associated with manual recording, such as illegible handwriting and missing information, ensuring data integrity and accuracy.

With the integration of an inventory system, the monitoring extends to handpicked laboratory equipment. The system tracks the usage of laboratory items, making it easier to manage resources and enhance security measures.

The Log Book Monitoring System significantly improves the efficiency of tracking visitors in the CCIT Computer Laboratory. It enables instructors to have real-time information on student attendance, helps students complete their tasks more effectively, and aids in better resource management. The system's automated features, accurate data recording, and comprehensive monitoring capabilities make it a valuable tool for the CCIT department, supporting a more secure and productive learning environment for students and faculty alike.



TABLE OF CONTENTS

TITLE PAGE	i
APPROVAL SHEET	ii
ACKNOWLEDGEMENT	iii
EXECUTIVE SUMMARY	iv
TABLE OF CONTENTS	v
CHAPTER 1. INTRODUCTION	
Introduction	1
Statement of the Problem and Objective of the Study	2
Scope and Limitations	3
Significance of the study	4
CHAPTER 2. REVIEW OF RELATED LITERATURE/ SYSTEMS	
Technical Background.....	6
Review of Related Literature	8
Synthesis.....	11
CHAPTER 3. METHODOLOGY	
Research Design.....	13
Research Analysis.....	14
Big Bang Model	16
Flow Chart.....	17
Local Study.....	18
Design Software System.....	22



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

CHAPTER 4 RESULTS AND DISCUSSION

Results of Evaluation.....26

CHAPTER 5 RECOMMENDATIONS

Recommendations29

Reference.....31

APPENDICES

Appendix A Relevant Source Code.....32

Appendix B Evaluation Tool or Test Documents46

Appendix C Users' Guide48

Appendix D Copy of Request Letter/ MOA/ MOU50

Appendix E Curriculum Vitae52



Chapter 1

INTRODUCTION

Today's societies operate in a rapidly evolving technological landscape where information management through technology is increasingly essential. Logbooks have traditionally been used to organize and track records in various areas, such as security, libraries, classrooms, and laboratories. However, paper-based logbooks have proven challenging, time-consuming, and environmentally wasteful.

In light of these drawbacks, the College of Communication & Information Technology (CCIT) Department at PRMSU San Marcelino Campus recognized the need to adapt to modern society by replacing paper-based logbooks with a more efficient and reliable system. Thus, the log monitoring system was developed to facilitate the transition to modern technology. This system aims to streamline record-keeping, improve accuracy, and enhance security measures within the department.

Moreover, the implementation of an inventory system in conjunction with the log monitoring system further enhances laboratory management. The inventory system enables tracking and monitoring of equipment records, including borrowed items, ensuring comprehensive resource management. This integration strengthens security measures and facilitates efficient utilization of laboratory resources.

The combined implementation of the log monitoring system and inventory system addresses the limitations of traditional paper-based methods, enabling the CCIT Department to embrace modern technology and optimize their operations.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Statement of the problem

Here are some possible problems for the student in computer laboratory log monitoring system:

- The current method of filtering and sorting log data for students using the CCIT Laboratory is slow and burdensome when relying solely on a log book.
- The manual logbook is less secure and vulnerable to data duplication, deletion, and modification.
- The use of log books and papers leads to the wastage of resources and occupies unnecessary space on bookshelves.
- The log book lacks the capability to gather data and generate comprehensive reports from the logs.
- The log books are susceptible to damage from water exposure, resulting in data loss and hindered access to information.

OBJECTIVE OF THE STUDY

The objective of this study was to design and implement a student computer laboratory log monitoring system for walk-in visitors that effectively tracks and monitors computer usage. The specific objectives of the study were:

- To improve the ease of filtering and sorting log data.
- To enhance log data security by implementing admin credentials.
- To eliminate the use of log books and reduce paper waste.
- To enable the generation of reports and facilitate data gathering.
- To implement a data backup mechanism for the system.



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	--	--

	SCOPE AND LIMITATIONS	
--	------------------------------	--

	<p>The PRMSU CCIT Student utilizing Computer Laboratory Log Monitoring System is intended to assist instructors in tracking the logs of students who were attending the laboratory and recording the items that CCIT students wish to borrow.</p>	
--	---	--

	Scope	
--	--------------	--

- | | | |
|--|---|--|
| | <ul style="list-style-type: none">• Access to the system is limited to PRMSU CCIT students.• The system records the log-in and log-out activities of students;• An inventory system is included to monitor handpicked laboratory equipment.• The log system can record data when a student borrows an item included in the system.• The system allows generating of Log Monitoring Reports. | |
|--|---|--|

	Limitations	
--	--------------------	--

- | | | |
|--|---|--|
| | <ul style="list-style-type: none">• Other departments cannot access this system.• The system cannot monitor computer activity.• Server and client communication functionality is not available.• The print function template cannot be customized.• User notifications for log timeouts or item returns are not supported.• The system may face challenges in handling a large number of walk-in visitors.• The system lacks built-in data backup functionality.• The quantity in the inventory system cannot automatically change when someone borrows an item. | |
|--|---|--|



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	--	--

	Significance of the study	
--	----------------------------------	--

	<p>The implementation of a computer lab log monitoring system holds several benefits for the PRMSU CCIT student department. It provides a secure environment and enables efficient monitoring of computer lab activities. Professors may effectively manage the computer lab and track student progress, while students attending the lab can benefit from improved supervision and support.</p>	
--	--	--

	<p>Moreover, this system assists administrators in overseeing computer lab resources and ensuring their efficient utilization. By having real-time monitoring and data analysis capabilities, the system can identify areas of improvement and optimize resource allocation, leading to enhanced productivity and cost-effectiveness.</p>	
--	---	--

	<p>The significance of this study lies in its ability to create a conducive learning environment, streamline administrative processes, and improve resources within the PRMSU CCIT student department.</p>	
--	--	--

	<p>To Students – The result of the study will provide a secure environment and enable efficient monitoring of computer lab activities, benefiting students as users. They can enjoy a safer and controlled space for their lab work, ensuring a conducive learning environment. The system allows for improved supervision and support, enabling students to receive better guidance and assistance from professors/ instructors.</p>	
--	--	--

	<p>To Professors – The result of the study will assist administrators in overseeing computer lab resources and ensuring their efficient utilization. By having real-time monitoring and data analysis capabilities, professor instructors may effectively manage the computer lab and track student progress, further enhancing the learning experience.</p>	
--	---	--



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	--	--

	<p>To Future Researchers - The result of the study will hold a great significance for future researchers in the field for it will provide a foundation of knowledge and insights that can inspire and guide their future investigations. The study's findings will shed light on the effectiveness of log monitoring systems in enhancing efficiency, improving security, and providing valuable insights from log data. This will serve as a starting point for future researchers to delve deeper into these areas and investigate.</p>	
--	--	--



Chapter 2

TECHNICAL BACKGROUND

Visual Basic Studio (C# language)

Visual Basic (VB) or C# programming language in Visual Studio aims to track and monitor the usage of computer labs by students in an educational institution.

The Student Computer Laboratory Log Monitoring System was developed using Visual Basic Studio and the C# language. It offers a powerful and efficient solution for monitoring and managing computer activities in a student computer laboratory. Its comprehensive features provide administrators with the necessary tools to ensure a secure and productive environment for students, making it an invaluable asset for educational institutions.

Dapper Extension

Dapper Extension is a small library that provides additional features to the widely-used .NET ORM Dapper. It adds basic CRUD operations such as Get, Insert, Update, and Delete for your POCOs, making it easier to perform common database operations. Dapper Extensions use numeric parameters passed in the function itself instead of creating dynamic objects for them, which enhances Dapper parameterized operations.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

SQL Server

SQL Server is a relational database management system developed by Microsoft. It is used to store and retrieve data as requested by other software applications. SQL Server supports a variety of programming languages, including SQL, C#, Java, and Python. It provides features such as transaction processing, indexing, and security.

SQL Server can be used for both small-scale and enterprise-level applications. It is widely used in industries such as healthcare, finance, and e-commerce. SQL Server is available in different editions, including Express, Standard, and Enterprise

SQL Express Local Database

SQL Express LocalDB is an on-demand managed instance of the SQL Server engine that requires no configuration to run and utilizes minimal files. It is intended for developers and runs in-process, meaning that it runs as part of the application and not as a separate process. This also means that it requires a special connection string and cannot be accessed remotely. SQL Server Express is similar to LocalDB in cost, target audience, and API compatibility, but can be used for larger applications and requires more installation and configuration time. Both LocalDB and SQL Server Express can be used for production applications at no cost, but choosing LocalDB as a backend should only be done if the application's database needs will not grow over time.



REVIEW OF RELATED LITERATURE

A student computer laboratory log monitoring system is a technical tool created to track and monitor the actions and usage of computers in a student computer laboratory or a setting comparable to it in order to gather and analyze data about the use of computers.

FOREIGN

According to Doe and Smith, (2017) the design and deployment of a laboratory log monitoring system with a quality assurance focused on the design, features, and advantages of such a system for maintaining data integrity, traceability, and compliance in a laboratory setting.

According to Johnson and Davis, (2019) an automated log monitoring system focused on keeping track of and interpreting log data produced by lab equipment including pressure, temperature, and humidity sensors. The report examined the system's implementation specifics and possible uses for preserving ideal laboratory conditions.

According to Thompson and Brown, (2016) the integration of log monitoring and analysis methods within Laboratory Information Management Systems (LIMS) went over the advantages of real-time log monitoring for performance enhancement, data security, and mistake detection in lab settings.

Based on the study of Wilson and Robert, (2020) the effectiveness and security concerns of log monitoring in lab networks provided a framework for safely gathering and examining log data from various laboratory systems and discussed ways to process and store logs to their best advantage for effective monitoring.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Based on Anderson and Thompson, (2018) a log monitoring system was created especially for laboratory compliance and auditing needs. In addition to discussing the design and execution of a system that makes effective log collection, analysis, and reporting possible, it emphasized the significance of log data in meeting regulatory obligations.

According to Jang and Zou, (2011) traditional monitoring methods were still frequently based on laboratory examinations of representative field samples; this requires a significant amount of time and money, and the sample may alter before the examination. Additionally, the equipment that was now on the market was typically too bulky to be made portable. As an alternative, portable monitoring devices based on lab chips and electrochemical sensing seem well adapted to supplement traditional analytical techniques for a variety of environmental monitoring applications.

Local

According to Cruz and Bathan, (2022) the creation of a Log Monitoring System Using a Quick Response (QR) Code at Samar State University served as the institution's tracing system for COVID-19 prevention. The study was created as a method for tracking down an individual who is in direct touch with a COVID-19 positive by keeping the daily logs of the employees, students, and visitors.

Based on the study of Samonte, (2021) people or employees in any facility could benefit from the monitoring of the automated smart laboratory environment to conduct their duties with precision, comfort, and efficiency. The creation of a mobile application for system control, alerts and notifications, device automation, monitoring



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

of the environment's status, and data viewing in a medical laboratory facility was the subject of this study. The fundamental concern in laboratories was the monitoring of humans, other living things, and experimental specimen safety.

According to Estrera and Pachica (2020) teachers' presence impacted pupils' learning significantly. The issue with manual systems was that human error is a problem. Sometimes the attendance sheet was lost unintentionally, which caused the data to be distributed incorrectly. This was a laborious task that requires keeping track of numerous faculty and class schedules. The process of creating reports took time and expensive. There were many automated attendance monitoring systems available today, including biometric systems. Another method of identifying a person based on physiological or behavioral traits was biometrics.

Based on Zapanta and Daniel, (2021) in the laboratory, students utilized computers to perform research, finish assignments, practice laboratory exercises, and communicate with teachers and other students. The study integrated access control and monitoring system to conveniently strengthen the security of the LAN workstations. By offering a real-time view and user-client activity records, it kept track of what users connected to the LAN are doing.

Based on Ebin and Arandia, (2022) the initial goal was to create a prototype of the Student Attendance Acquisition System (SAAS) using the Raspberry Pi and QR code technology. After that, a web server for the Attendance Monitoring System (AMS) could be set up and used to store, retrieve, and display attendance data. The effectiveness of the created system might also be able to conduct a reliability test and identify the participants who were most likely to be absent. After testing 10 BSECE



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
	<p>students over the course of five consecutive days, utilizing QR code technology, there were no issues with the system.</p>	
	11	



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Synthesis

Using the idea of previous researchers, a student computer lab log monitoring system combines recording techniques, centralized data gathering, user-friendly interfaces, and maintenance in order to efficiently monitor and manage computer lab activity. Students' access to computer laboratories is monitored and controlled by the Student Computer Laboratory Log Monitoring System. This system delivers increased accuracy, real-time monitoring, data analytics, and improved security by substituting old-fashioned log-in sheets with a digital solution.



Chapter 3

DESIGN AND METHODOLOGY

Research Design

This system is focused on the student of PRMSU CCIT Campus to monitor the student in the computer laboratory and who is attending laboratory activities. Conducting a survey to the students has provided valuable feedback and gathered some information on what features were needed in a system to provide valuable input.

Data Collection

The researchers gave the consents to the students to ensure the confidentiality and security of the collected data.

Each student using the computer was given a unique user identification in the system, which was done by using student IDs as user login credentials.

Log monitoring system automated the process of data collection, eliminating the need for manual recording and data entry.

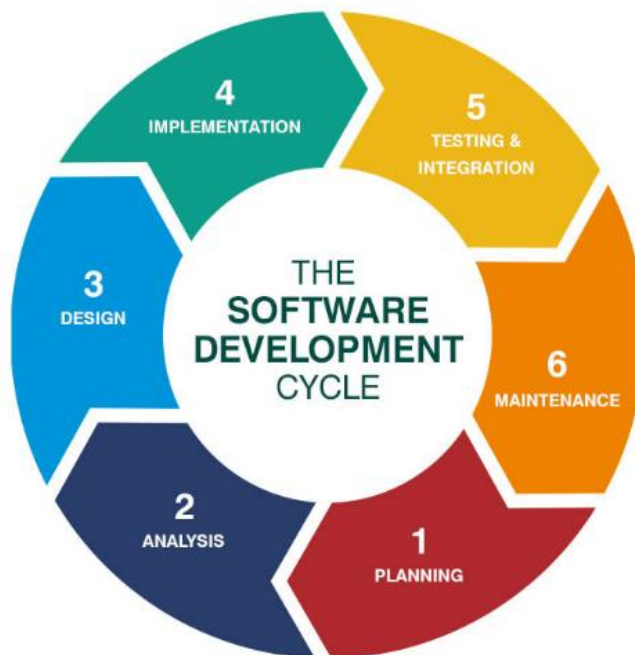
Data Analysis

Researchers collected the data from the students through a survey. Then, the gathered data were tabulated, analyzed and interpreted. Students' feedback on the laboratory log monitoring system served as the main data of the study.



Research Analysis

The Software Development Life Cycle (SDLC) is a structured framework that guides the development and deployment of software systems. It encompasses a series of well-defined phases, from initial concept and requirements gathering to system testing, deployment, and maintenance. Employing SDLC methodologies ensures systematic and efficient software development while minimizing risks and ensuring high-quality outcomes.





COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Planning

Identified the specific requirements and objectives of the log monitoring system.

System design

Created a detailed design plan for the log monitoring system based on the requirements.

Develop

Started the coding and programming phase based on the design specification.

Testing

Performed various levels of testing, including unit testing, integration testing, and system testing.

Deployment

Prepared the log monitoring system for deployment to the student computer laboratory.

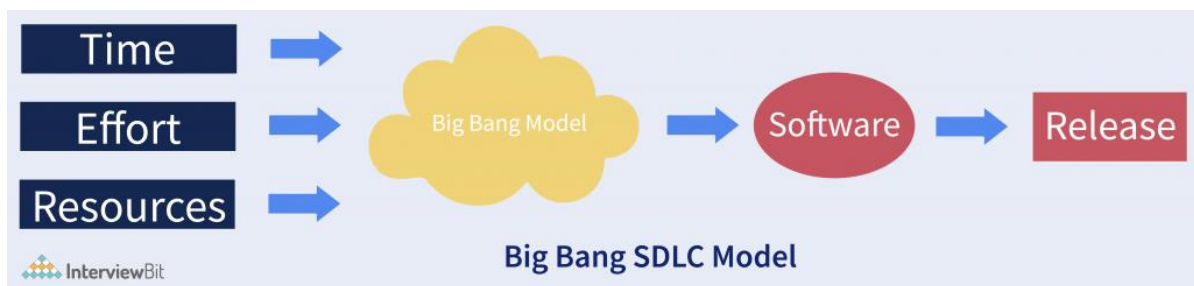
Maintenance

Provided maintenance to ensure the system operates smoothly.



Big Bang Model

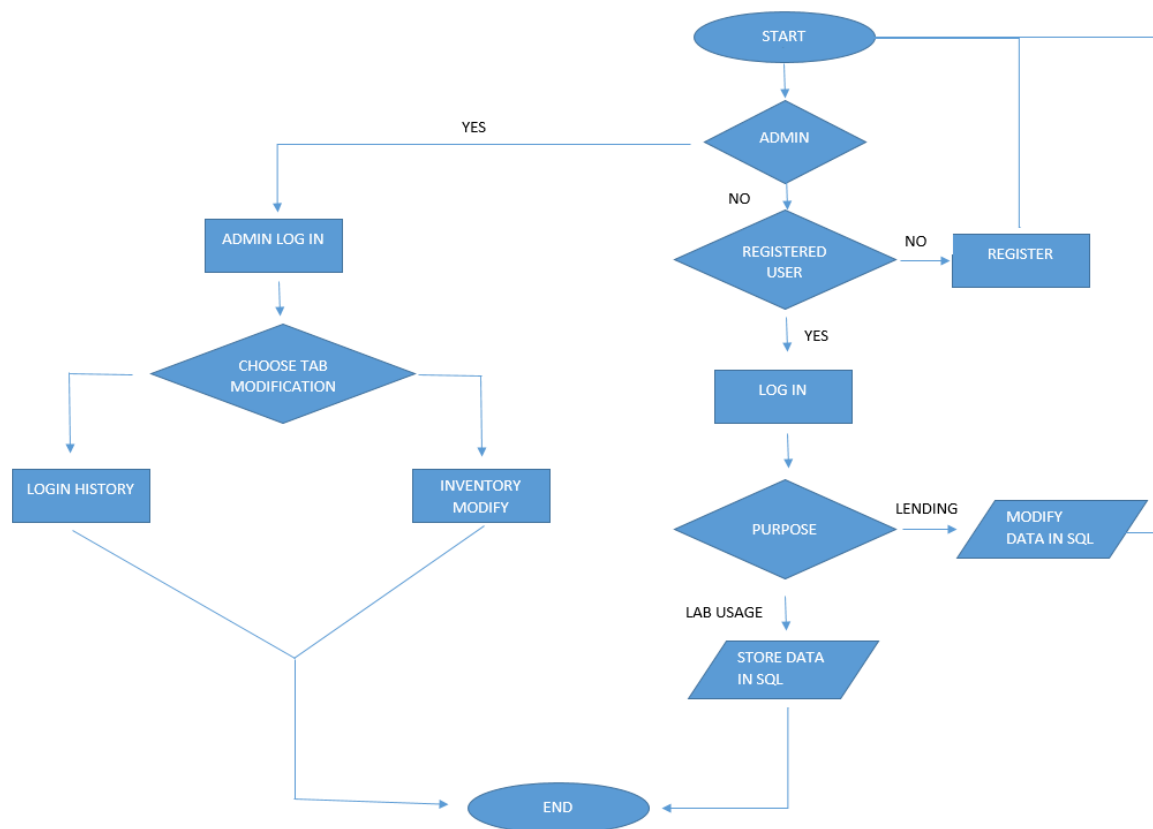
The Big Bang Model is an SDLC model that does not follow any specific process. The Big Bang Model involves little or no planning and concentrating all available resources on coding and software development. The requirements are recognized and carried out when they appear. The program may or may not need to be completely redesigned depending on the necessary changes.





Laboratory Log Monitoring System Flow Chart

The Student Computer Laboratory Log Monitoring System's flowchart offered a visual depiction of the sequential actions required in observing and controlling student computer use. It emphasized the value of monitoring operations, producing reports, analyzing data, and taking appropriate action. By putting in place such a system, educational institutions could guarantee the safe and responsible use of computer labs while fostering a positive learning environment.





COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Local Study

This study was conducted in the computer laboratory of the College of Communication and Information Technology (CCIT) at PRMSU San Marcelino Campus. The computer laboratory served as the primary facility for CCIT students to carry out their academic activities and assignments.

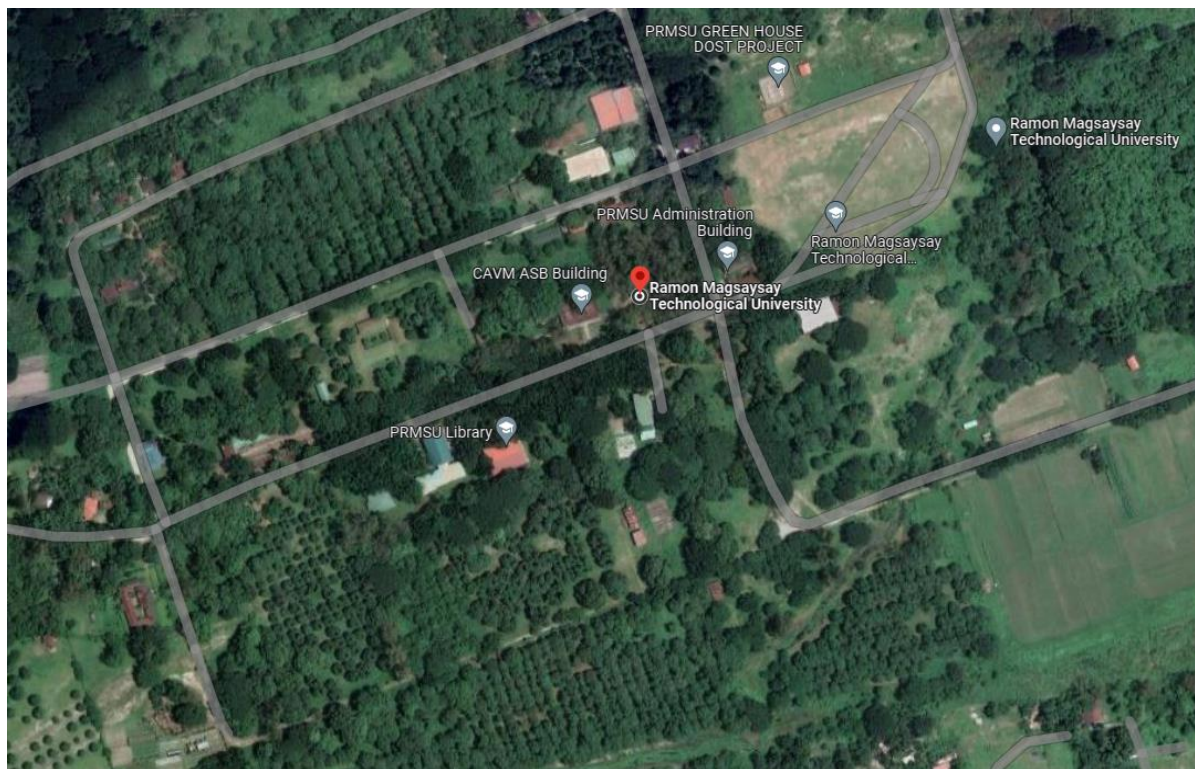


Figure 1. PRMSU SAN MARCELINO CAMPUS



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Figure 2. CCIT DEPARTMENT

A department within the academic structure of the educational institution (PRMSU) that focuses on the study and application of various disciplines related to communication and information technology.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Figure 3. CCIT LABORATORY

Servers as a hub for students to engage in hands-on learning experiences, conduct research, complete assignments, and collaborate on projects related to their respective fields of study.

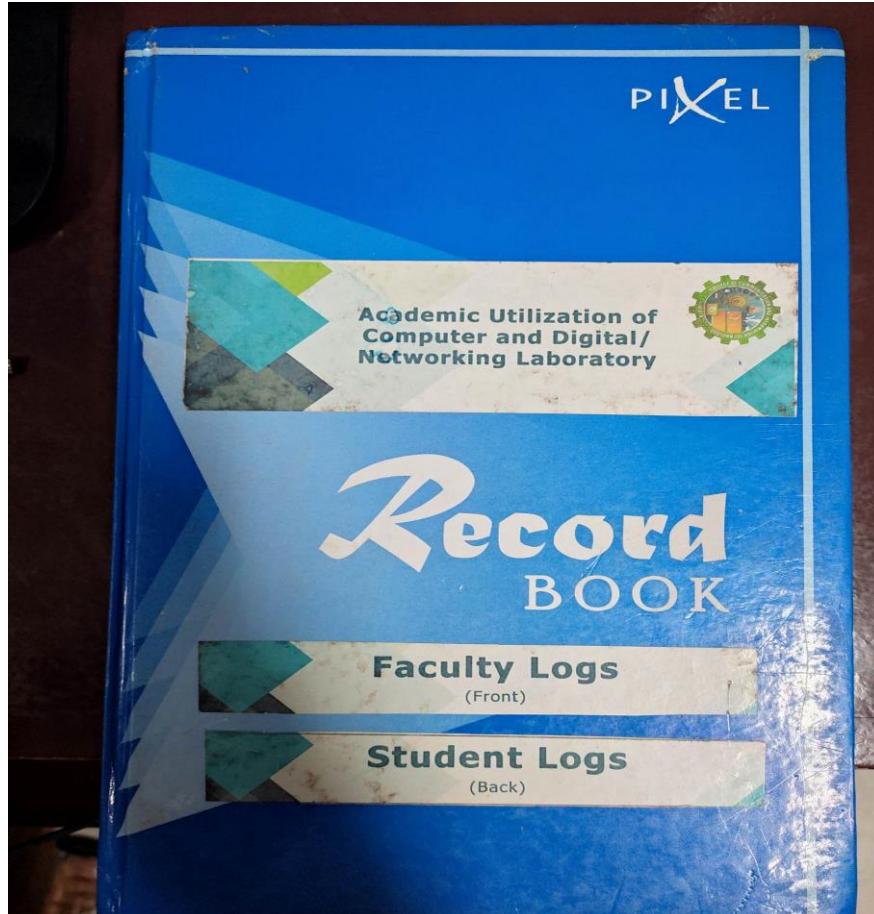


Figure 4. LABORATORY LOG BOOK

A Record-keeping tool used in the computer lab of the CCIT department, serves as a means to track and monitor the activities of students and visitors using the lab facilities.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Design of Software System

The log monitoring system for the computer lab was designed to efficiently track and monitor the usage of computers by visitors.



Figure 5. Dashboard

Visual representation of a log entry for a student.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY
SAN MARCELINO CAMPUS

LOG STATUS

Time-Out

Submit

Equipment

☐ Borrow ☐ Return

Item Name: Projector

Quantity: 0

Available

Figure 6. Entries Form

Use to access the administrative functions and privileges of the system.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

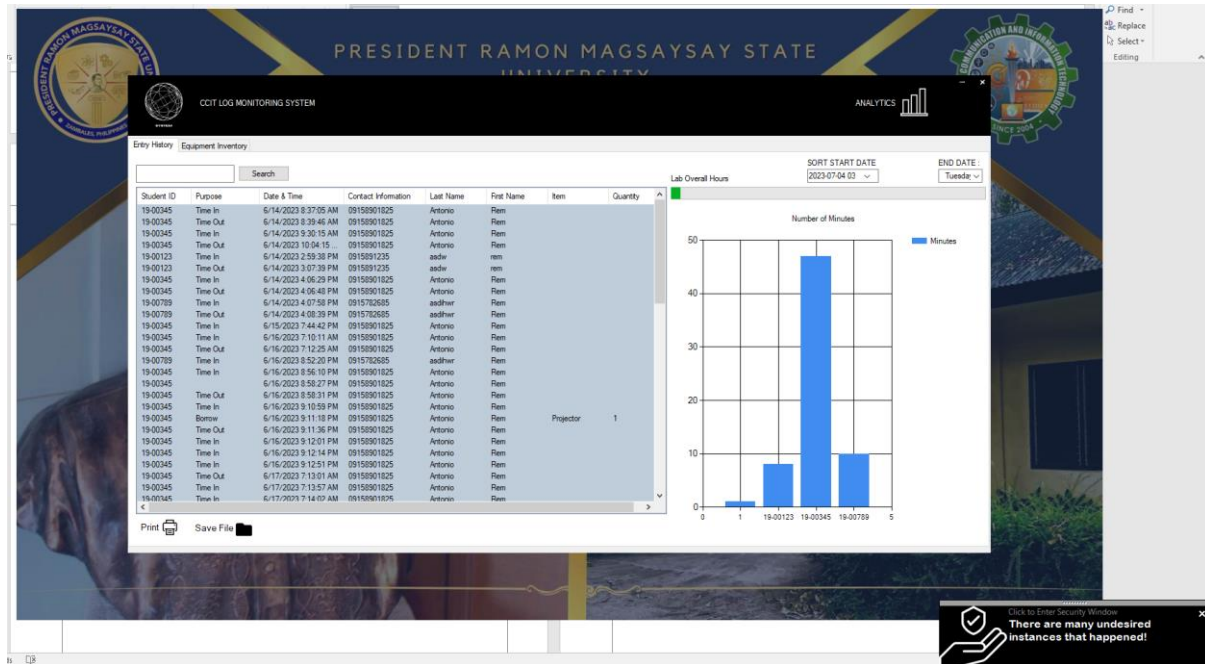


Figure 7. Admin Form

The administrator allows to configure the system view, analyze log data, generate reports, and perform administrative tasks.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY
SAN MARCELINO CAMPUS

REGISTRATION

Student ID

Age

Contact Info

First Name

Last Name

Figure 8. Registration Form

Collects and records information from individuals who wish to register or sign up for a particular event, service, or membership.



Chapter 4

Results and Discussion

Result of Evaluation

Overall, the average satisfaction level across all four Bachelor of Science in Computer Science (BSCS) classes was 4.7 out of 5, it indicates a high level of satisfaction with the computer lab log monitoring system. Majority of students expressed satisfaction or higher levels of satisfaction, with a significant number of students indicating that they are very satisfied with the system.

These results highlight the positive impact of the log monitoring system on students' experience in the computer lab. The system has proven to be effective in meeting their needs and expectations, as reflected in the high satisfaction ratings.

The findings suggest that the implementation of the log monitoring system has successfully addressed the limitations of the previous manual log book approach. The automated system provided students with a more efficient and convenient way to log in and out of the lab, resulting in accurate attendance tracking.

The high satisfaction levels also indicate that the system has improved the security and data integrity of the environment.

The results also highlight the importance of continuous improvement and customization of the system based on specific student needs. While overall satisfaction levels were high, there were some students who expressed lower satisfaction or neutrality. It was crucial to identify and address their concerns to further enhance the system's functionality and user experience.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Result of Evaluation

I. ACCURACY

Poor 1 Unsatisfied 2 Acceptable 3 Satisfied 4 Very Satisfied 5

Student	Poor	Unsatisfied	Acceptable	Satisfied	Very Satisfied	Average	Total Respondent
BSCS 1			4	12	14	4.3	30
BSCS 2			5	9	12	4.8	26
BSCS 3			6	9	10	4.2	25
BSCS 4			4	7	9	4.5	20
Professor			1	2		3.6	3
Total Average: 4.28						104 respondents	



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

II. Efficiency

1 Strongly Disagree 2 Disagree 3 Acceptable 4 Agree 5 Strongly Agree

Student	Strongly Disagree	Disagree	Acceptable	Agree	Strongly Agree	Total	Total respondent
BSCS 1			7	9	14	4.2	30
BSCS 2			5	11	10	4.2	26
BSCS 3			11	6	8	3.9	25
BSCS4			8	5	7	4.0	20
Professor			1	2		3.6	3
Total Average: 4.0						104 Respondents	

Total Respondent	Accuracy Average:	Efficiency Average	Overall Average
104	4.28	4.0	4.14



Chapter 5

RECOMMENDATIONS

As the research on log monitoring systems for CCIT students of the PRMSU San Marcelino Campus reached its conclusion, it opened up new avenues for future researchers to explore further in this domain. The implementation and evaluation of such a system within an educational institution could have significant implications for enhancing security measures, promoting accountability, and improving the overall student experience.

In this section, recommendations for future researchers were given in delving deeper into this research within the CCIT Department of PRMSU San Marcelino Campus.

1. System is Accessible to all Students of PRMSU-SM and Faculty members.

Future researchers may explore the potential of integrating log monitoring systems with other security measures, such as access control or intrusion detection systems. This may provide a more comprehensive and integrated approach to information security, and further enhance the effectiveness of the log monitoring system.

2. Long-term Evaluation of System Performance:

To gain a deeper understanding of the effectiveness of the log monitoring system, future researchers may conduct a long-term evaluation of its performance. This may involve analyzing data over an extended period to assess the system's ability to detect and respond to various types of security incidents and identify trends in student behavior. By tracking system performance over time, researchers may provide insights into the system's sustainability, scalability, and adaptability.

3. Analysis of User Behavior Patterns and Risk Factors:

Further research may focus on analyzing user behavior patterns and identifying risk factors within the PRMSU San Marcelino Campus. By examining log data and conducting statistical analysis, researchers may uncover potential vulnerabilities and



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

identify patterns that may indicate security threats or breaches. This analysis may inform the development of more targeted security measures and user awareness campaigns.

4. Integration of Advanced Technologies:

Future researchers may explore the integration of advanced technologies, such as machine learning, artificial intelligence, and natural language processing, into the log monitoring system. By leveraging these technologies, the system may learn from historical data, detect anomalies more accurately, and provide more intelligent insights and recommendations to administrators. This may further enhance the system's ability to prevent and respond to security incidents.

5. User Feedback and User Experience Optimization:

To improve the user experience and ensure user acceptance, future researchers may focus on gathering user feedback and optimizing the log monitoring system accordingly. Surveys, interviews, or usability testing may provide valuable insights into user perceptions, challenges faced, and suggestions for improvement. Based on this feedback, researchers may refine the system's interfaces, notifications, and overall usability to maximize user satisfaction and engagement.

6. Compliance with Data Privacy Regulations:

Given the increasing importance of data privacy and protection, future researchers may thoroughly investigate the legal and ethical considerations associated with the log monitoring system. They may explore ways to ensure compliance with data privacy regulations, such as the General Data Protection Regulation (GDPR) or the Data Privacy Act, to safeguard the rights and privacy of students while maintaining effective security measures.



REFERENCES

- Jang, A., Zou, Z., Lee, K. K., Ahn, C. H., & Bishop, P. L. (2011). State-of-the-art lab chip sensors for environmental water monitoring. *Measurement Science and Technology*, 22(3), 032001.
- Paculaba, A.M, M.A Bathan, and E, Niego. "Log Monitoring System using Quick Response (QR) Code: A State University's COVID-19 Contact Tracing System." *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)* 3.2 (2022): 209-218.
- Samonte, M.J C., et al. "Internet-of-Things Based Smart Laboratory Environment Monitoring System." *2021 IEEE 8th International Conference on Industrial Engineering and Applications (ICIEA)*. IEEE, 2021.
- Apanta Jr, Daniel B., H Talirongan, and F.J B. Talirongan. "Access Control and Monitoring: A System for Computer Laboratory." *Mediterranean Journal of Basic and Applied Sciences (MJBAS)* 5.1 (2021): 18-27.
- Naive, A. F., P. J. M. Estrera, and A. O. Pachica. "Design and implementation of faculty class attendance monitoring system using BLE beacons." *Indian Journal of Science and Technology* 13, no. 40 (2020): 4234-4243.
- Ebin, J Dominique, et al. "Utilizing QR Codes for Smart and Low-cost Student Attendance Acquisition and Monitoring System in Eastern Visayas State University, Philippines." *2022 IEEE 14th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM)*. IEEE, 2022.



Appendix A

Relevant Source Code

Log Entry

```
namespace LogAppForms
{
    public partial class EntryForm : Form
    {
        bool drag = false;
        Point start_point = new Point(0, 0);

        public EntryForm()
        {
            InitializeComponent();
        }

        private void LogIn()
        {
            UserModel model = new UserModel(entryIDValue.textBox1.Text);

            GlobalConfig.DataConnections.CurrentTime(model);
            PurposeForm purposeForm = new PurposeForm(this);
            purposeForm.BringToFront();
            WinAPI.AnimateWindow(purposeForm.Handle, 500,
            WinAPI.HOR_NEGATIVE);
            purposeForm.Show();
        }

        public void button1_Click(object sender, EventArgs e)
        {
            if (IsValidForm() == true)
            {
                UserModel m1 = new UserModel(entryIDValue.textBox1.Text);
                if (GlobalConfig.DataConnections.IsStudentIdDuplicate(m1))
                {
                    LogIn();
                }
            }
            else
            {
            }
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
        MessageBox.Show("Your ID is not registered, Ask the Admin for more  
information", "Get an Administrator for more information", MessageBoxButtons.OK,  
        MessageBoxIcon.Exclamation);  
    }  
}  
else  
{  
    MessageBox.Show("INVALID INPUT VALUE");  
}  
}  
  
private void entryIDValue_TextChanged(object sender, EventArgs e)  
  
{  
  
}  
  
private bool IsValidForm()  
{  
    bool isValid = true;  
    if(entryIDValue.textBox1.Text.Length == 0)  
    {  
        isValid = false;  
    }  
  
    return isValid;  
}  
  
private void button2_Click(object sender, EventArgs e)  
{  
    AdminLogIn adminLogIn = new AdminLogIn();  
    adminLogIn.Show();  
}  
  
private void button3_Click(object sender, EventArgs e)  
{  
    panel2.Visible = false;  
    UserForm userForm = new UserForm();  
    userForm.BringToFront();  
    WinAPI.AnimateWindow(userForm.Handle, 500, WinAPI.HOR_NEGATIVE);  
    userForm.Show();  
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY		
---	--	--

	<pre>} private void panel1_MouseDown(object sender, MouseEventArgs e) { drag = true; start_point = new Point(e.X, e.Y); } private void panel1_MouseMove(object sender, MouseEventArgs e) { if(drag) { Point p = PointToScreen(e.Location); this.Location = new Point(p.X - start_point.X, p.Y - start_point.Y); ; } } private void panel1_MouseUp(object sender, MouseEventArgs e) { drag = false; } private void button4_Click(object sender, EventArgs e) { this.Close(); } private void button5_Click(object sender, EventArgs e) { this.WindowState = FormWindowState.Minimized; } public void EntryForm_Load(object sender, EventArgs e) { this.Activate(); } }</pre>	
--	---	--



Purpose Form

```
namespace LogAppForms
{
    public partial class PurposeForm : Form
    {
        private SqlConnection _conn = new
SqlConnection(GlobalConfig.ConnectionString("SearchCN"));
        private SqlCommand cmd;
        private DataTable dt;
        private SqlDataAdapter adapter;
        private DataSet ds;

        private string timeIn = "Time In";
        private string timeOut = "Time Out";
        private string Borrow = "Borrow";
        private string Return = "Return";
        private EntryForm entryForm;
        private bool toggleSwitchState = false;
        string val = "";
        decimal q = 0;
        string cmb = "";

        public PurposeForm(EntryForm entryForm)
        {
            InitializeComponent();
            this.entryForm = entryForm;
        }
        public PurposeForm()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            if (ValidateForm())
            {
                if (userControl21.radioButton1.Checked == true)
                {
                    val = Borrow;
                    q = userControl21.numericUpDown1.Value;
                    cmb = userControl21.comboBox1.Text;
                }
            }
        }
    }
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
if (IsItemAvailable(cmb)) //if itemname quantity is > 0
{
    PurposeModel model = new PurposeModel(q, val, cmb);
    UserModel u_model = new UserModel(entryForm.entryIDValue.Text);

    RemoveQuantity();
    GlobalConfig.DataConnections.CreatePurpose(u_model, model);
    GlobalConfig.DataConnections.AddUnreturnedItem(cmb,q);
    MessageBox.Show("Success, Please return the borrowed Item!");
    Close();
}
else
{
    MessageBox.Show("Item is not available!!");
}

}
if (userControl21.radioButton2.Checked == true)
{
    val = Return;
    q = userControl21.numericUpDown1.Value;
    cmb = userControl21.comboBox1.Text;

    PurposeModel model = new PurposeModel(q, val, cmb);
    UserModel u_model = new
UserModel(entryForm.entryIDValue.textBox1.Text);

    AddQuantity();
    GlobalConfig.DataConnections.CreatePurpose(u_model, model);
    GlobalConfig.DataConnections.SubUnreturnedItem(cmb,q);
    MessageBox.Show("Success, Thank you for Returning the Item!");
    Close();
}

if (toggle_Switch1.Checked == true || toggle_Switch1.Checked == false)
{
    string val = "";
    if (toggle_Switch1.Checked == true)
    {
        val = timeIn;
    }
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
        if (toggle_Switch1.Checked == false)
        {
            val = timeOut;
        }
        PurposeModel model = new PurposeModel(val);
        UserModel u_model = new
UserModel(entryForm.entryIDValue.textBox1.Text);

GlobalConfig.DataConnections.CurrentTime(u_model, model);
        MessageBox.Show("Success, Mind the other students!");

        Close();
    }
}
else
{
    MessageBox.Show("Fill up properly");
}
}

public bool ValidateForm()
{
    if(toggle_Switch1.Checked == true && userControl21.radioButton1.Checked)
    {
        MessageBox.Show("You're already Timed In and trying to borrow/return
Items, Time Out first!!");
        return false;
    }
    if (toggle_Switch1.Checked == true && userControl21.radioButton2.Checked)
    {
        MessageBox.Show("You're already Timed In and trying to borrow/return
Items, Time Out first!!");
        return false;
    }
    if (userControl21.numericUpDown1.Value <= 0 ||
userControl21.comboBox1.Text.Length <= 0)
    {
        if (toggleSwitchState == false)
        {
            return false;
        }
    }
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
        if (toggleSwitchState == true)
        {
            return true;
        }
        return false;
    }
    if (userControl21.radioButton1.Checked ||
userControl21.radioButton2.Checked)
    {
        return true;
    }

    return true;
}

private void toggle_Switch1_CheckedChanged(object sender, EventArgs e)
{
    //return flag as default cause of auto change
    toggleSwitchState = false;
}

private void InitializeToggleSwitch(string studentID){

    using (SqlConnection connection = new
SqlConnection(GlobalConfig.ConnectionString("SearchCN")))
    {
        connection.Open();

        string sqlQuery = "SELECT TOP 1 TimeInOut FROM DateTimeTable
WHERE StudentIdNumber = @StudentIdNumber ORDER BY CurDateTime DESC";
        using (SqlCommand command = new SqlCommand(sqlQuery,
connection))
        {
            command.Parameters.AddWithValue("@StudentIdNumber", studentID);

            using (SqlDataReader reader = command.ExecuteReader())
            {
                if (reader.Read())
                {
                    string lastTimeInOut = reader.GetString(0);
                    toggle_Switch1.Checked = (lastTimeInOut == "Time In");
                }
            }
        }
    }
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
        label2.Text = lastTimeInOut;
    }
    else
    {
        //for togglestate
        toggle_Switch1.Checked = false;
    }
}

connection.Close();
}

private void PurposeForm_Load(object sender, EventArgs e)
{
    InitializeToggleSwitch(entryForm.entryIDValue.textBox1.Text);
}

private void toggle_Switch1_MouseClick(object sender, MouseEventArgs e)
{
    toggleSwitchState = true;
}

private void RemoveQuantity()
{
    ItemModel item = new ItemModel(
        userControl21.comboBox1.Text,
        userControl21.numericUpDown1.Value
    );

    GlobalConfig.DataConnections.RemoveItem(item);
}

private void AddQuantity()
{
    ItemModel item = new ItemModel(
        userControl21.comboBox1.Text,
        userControl21.numericUpDown1.Value
    );
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
);

GlobalConfig.DataConnections.AddQuantityItem(item);
}
private bool CheckPreviousPurpose(string studentID)
{
    string previousTimeInOut = null;
    string previousStudentIdNumber = null;
    bool foundString= false;
    DataTable dataTable = GetDateTimeTable();
    dataTable.DefaultView.Sort = "TimeInOut DESC";

    foreach (DataRowView rowView in dataTable.DefaultView)
    {
        DataRow row = rowView.Row;

        string currentTimeInOut = row["TimeInOut"].ToString();
        string currentStudentIdNumber = row["StudentIdNumber"].ToString();

        if (currentStudentIdNumber == studentID && previousTimeInOut ==
"Return")
        {
            foundString = true;
            break;
        }

        previousTimeInOut = currentTimeInOut;
        previousStudentIdNumber = currentStudentIdNumber;
    }
    return foundString;
}
private DataTable GetDateTimeTable() //On table DateTimeTable
{
    _conn.Open();
    cmd = new SqlCommand("SELECT * FROM DateTimeTable", _conn);

    adapter = new SqlDataAdapter(cmd);

    ds = new DataSet();

    adapter.Fill(ds, "dbo.DateTimeTable");
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
_conn.Close();

dt = ds.Tables["dbo.DateTimeTable"];

return dt;
}

private DataTable GetItemsTable() // returns Items table
{
    _conn.Open();
    cmd = new SqlCommand("SELECT * FROM Items", _conn);

    adapter = new SqlDataAdapter(cmd);

    ds = new DataSet();

    adapter.Fill(ds, "dbo.Items");

    _conn.Close();

    dt = ds.Tables["dbo.Items"];

    return dt;
}

public bool IsItemAvailable(string itemName)
{
    bool avail = false;
    foreach (DataRow row in GetItemsTable().Rows)
    {
        string tableItemName = row["ItemName"].ToString();
        int quantity = Convert.ToInt32(row["Quantity"]);

        if (quantity > 0 && tableItemName == itemName)
        {
            avail = true;
        }
    }
    return avail;
}
```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
private void panel1_Paint(object sender, PaintEventArgs e)
{
}

private void button2_Click(object sender, EventArgs e)
{
    WinAPI.AnimateWindow(this.Handle, 4000, WinAPI.HOR_POSITIVE);
    this.Close();
}
}
```

Registration Form

```
namespace LogAppForms
{
    public partial class UserForm : Form
    {
        private bool drag = false;
        private Point start_point = new Point(0, 0);
        EntryForm entryForm = new EntryForm();

        public UserForm()
        {
            InitializeComponent();
        }

        private void register_button_Click(object sender, EventArgs e)
        {
            if(validateForm())
            {
                AdminPass adminPass = new AdminPass();

                if (adminPass.ShowDialog() == DialogResult.OK)
                {

```




COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

```
UserModel m1 = new UserModel(studentID_value.textBox1.Text);
if (!GlobalConfig.DataConnections.IsStudentIdDuplicate(m1))
{
    CreateUser();
}
else
{
    MessageBox.Show("Your ID is already registered, Ask the Admin for more information", "Get an Administrator for more information",
    MessageBoxButtons.OK, MessageBoxIcon.Exclamation);
}
}
else
{
    this.Close();
    entryForm.Visible = true;
}
}
else
{
    MessageBox.Show("Fill In The Forms Properly!");
}
}
public void CreateUser()
{
    UserModel user = new UserModel(
studentID_value.textBox1.Text,
    age_value.textBox1.Text,
    contactInfo_value.textBox1.Text,
    firstName_value.textBox1.Text,
    lastName_value.textBox1.Text
    );

    GlobalConfig.DataConnections.CreateUser(user);
    MessageBox.Show("Registered Successfully");
    this.Close();
}
public bool validateForm()
{

```



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

3)

```
if (studentID_value.textBox1.TextLength == 0)
{
    return false;
}
if (age_value.textBox1.TextLength == 0 || age_value.textBox1.TextLength >
{
    return false;
}
if (firstName_value.textBox1.TextLength == 0)
{
    return false;
}
if (lastName_value.textBox1.TextLength == 0)
{
    return false;
}
if (contactInfo_value.textBox1.TextLength == 0)
{
    return false;
}

return true;
}

private void button1_Click(object sender, EventArgs e)
{
    entryForm.Visible = true;
    this.Close();
}

private void UserForm_MouseDown(object sender, MouseEventArgs e)
{
    drag = true;
    start_point = new Point(e.X, e.Y);
}

private void UserForm_MouseMove(object sender, MouseEventArgs e)
{
    if (drag)
    {
        Point p = PointToScreen(e.Location);
```



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	---	--

	<pre>this.Location = new Point(p.X - start_point.X, p.Y - start_point.Y); ; } } private void UserForm_MouseUp(object sender, MouseEventArgs e) { drag = false; } } }</pre>	
--	---	--

For more information get in: <https://github.com/friedGarlic/LogSys.git>



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

Appendix B

Evaluation Tools or Test Documents

Part. 1 Personal Information

Name: _____

Email Address: _____

Contact Address: _____

Part 2. System being develop are usually according to:

Accuracy – The ability to provide paper output when it is needed.

Efficiency – Acting to produce an effect with the minimum effect.

Instruction: Using the 4-points scale shown below, please rate the following questions by placing a check in the box. Please answer the question honestly.

1 = Poor

2 = Unsatisfied

3 = Acceptable

4 = Satisfied

5 = Very Satisfied

Efficiency	Poor	Unsatisfied	Acceptable	Satisfied	Very Satisfied
1. Do you think it is easy for you to access your log history?					



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

2. Do you think it is important to monitor the student's activities in the computer laboratory?					
3. Do you think using the log monitoring system can be effective in eliminating the issues involving misinformation and errors in the computer laboratory?					
4. Do you think it is helpful to track the records of the visitor's frequency of equipment usage in the log monitoring system?					
5. Do you think the log monitoring system preserves a safe and controlled environment for students?					

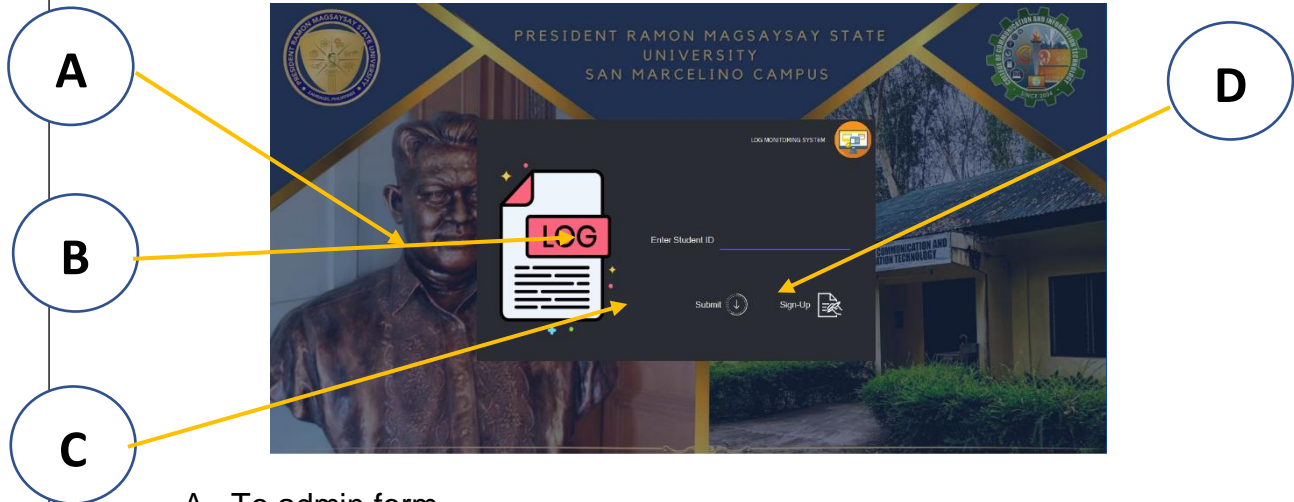
Please feel free to provide any additional comments or suggestion for improvement. We value your feedback and will use it to enhance the system further.



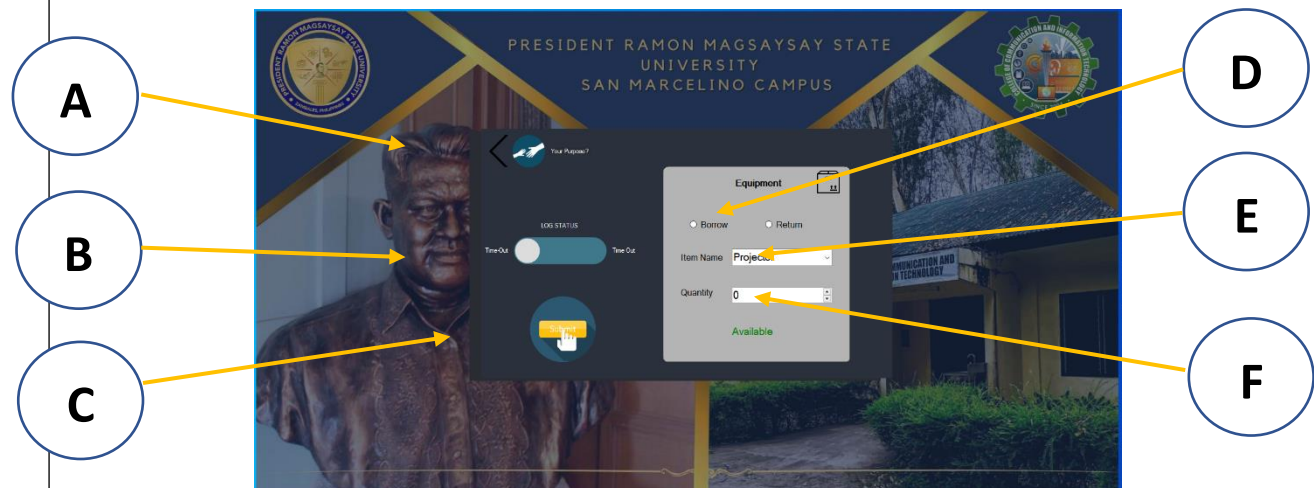
Appendix C

User's Guide

Design of Software, System, Product and or User Interface Design



- A. To admin form
- B. Fill out "Student ID Number"
- C. Click to "Submit"
- D. Click to "Register/Sign Up"



- A. To Admin form
- B. Toggle switch for "TimeIn and TimeOut"
- C. Click "Submit Button"
- D. Click "Borrow or Return"
- E. Choose Item
- F. Choose quantity of desired item



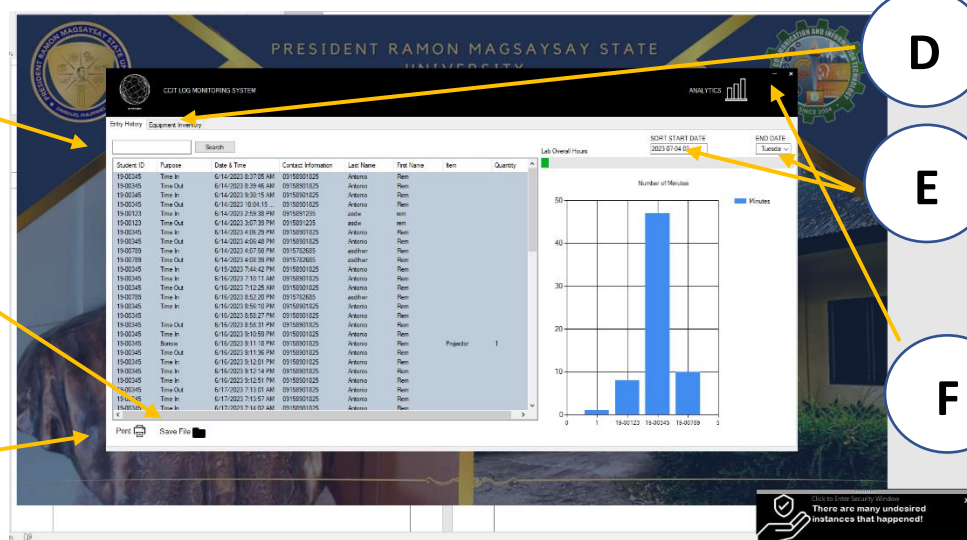
COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

A points to the Student ID field.

B points to the Register button.

C points to the back arrow.

- Fill out forms "Student ID", "Age", "Contact Info", "First Name", "Last Name"
- Click "Register"
- Back to "Entry Form"



- Filter search using "Student ID", "Date format mm/dd/yyyy"
- Save as pdf to desktop
- Print current list
- To Equipment inventory
- Sort range of date
- Close admin



	COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY	
--	--	--

	<p>APPENDIX D CERTIFICATION</p>	
--	-------------------------------------	--



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Republic of the Philippines
PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY
College of Communication and Information Technology
San Marcelino, Zambales

CERTIFICATION

This is to certify that the undersigned has reviewed and proofread the research manuscript entitled **Laboratory Log Monitoring System for Walk-in Visitors of Student of College of Communication and Information Technology of PRMSU San Marcelino Campus** prepared and submitted by **JOMAR DELA CRUZ, REM CARL ANTONIO, JAIMIE DIANNE SIMPELO, RENZ ROY RAGADIO**, BSCS-IV, student researchers of President Ramon Magsaysay State University - San Marcelino Campus.

This further certifies that the manuscript strictly followed the standard writing conventions which include punctuation, spelling, capitalization sentence structure, paragraph breaks, grammar, and usage.

Issued on the day of July, 2023 at San Marcelino, Zambales.

Date Signed

Sir. Lulustan Flores
Grammarian



	<p>APPENDIX E</p> <p>CURRICULUM VITAE</p>	
--	---	--



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

RENZ ROY RAGADIO

Brgy. LaPaz San Marcelino, Zambales

Contact No. 09633064077

Email: ragadiorenz@gmail.com



OBJECTIVES:

- To get an opportunity to utilize my computer literacy skills and the best of my potential.
- To gain experience working and contributing in a company.
- To find a company that will accept fast learner employees and that would value me as their asset.

PERSONAL DATA:

Date of Birth:	July 29, 2001
Place of Birth:	San Marcelino, Zambales
Citizenship:	Filipino
Sex:	Male
Age:	20
Civil Status:	Single
Height:	5'7"
Weight:	45
Religion:	Roman Catholic
Dialect Spoken:	English, Tagalog,

EDUCATIONAL BACKGROUND:

Kindergarten	San Guillermo Elementary School	- (2008-2010)
Elementary	San Guillermo Elementary School	- (2010-2016)
High School	Ramon Magsaysay Technological University	- (2016-2020)
Senior High School	President Ramon Magsaysay State University	- (2020-2022)
College	President Ramon Magsaysay State University	- (currently)



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



JAIMIE DIANNE L. SIMPELO

Purok 7 Aludig St. San Jose Castillejos

Zambales, Philippines

Mobile # 09301169449

E-mail address:

jaimie_dianne16@yahoo.com/jaimiediannes16@gmail.com

OBJECTIVES

To seek for a job opportunity in a growing organization where I can apply my skills and knowledge.

SKILLS & PERSONAL ATTRIBUTES

- Computer Operating System and Software Knowledge (Windows, MS Excel, MS Word, MS Powerpoint, MS Publisher, MS Access & E-mail).
- Clerical Skills
- Good Interpersonal and Communication Skills (Speaks and Understands basic English)
- Fast Learner, Flexible and Pro-active
- Adapts easily to multi-cultural and multi-disciplinary team.
- Have a Pleasant Personality.

TRAININGS/SEMINARS ATTENDED

- LEADERSHIP PROGRAM – November 10-11, 2017
Columban College Basic Ed.
Olongapo City, Philippines



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

EDUCATION

Sta. Maria Elementary School (Middle School)
Purok 5 San Jose Castillejos, Zambales
Graduate 2011-2012

St. Nicholas Academy of Castillejos Inc. (Junior Highschool)
San Juan Castillejos, Zambales
Moved up 2016-2017

Columban College Inc. Basic Education
Asinan, Olongapo City
(Currently Studying)

PERSONAL DATA

Address in the Philippines : Purok 7, Brgy. San Jose, Castillejos, Zambales
Date of Birth : July 15, 2001
Place of Birth : San Marcelino, Zambales, Philippines
Sex : Female
Nationality : Filipino
Height : 5'0"
Weight : 53 kg.
Civil Status : Single
Languages : English, Tagalog

REFERENCES

Available upon request



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Jomar R. Dela Cruz

Address: Aglao, San Marcelino

Mobile # +639955968193

OBJECTIVES

A very outgoing and ambitious person, eager to put my abilities to use in this company despite the fact that I don't have any previous experience in this field. I'm looking forward to the opportunity to grow. I have no doubt that I can overcome any obstacles and be successful in this position because of my excellent work attitude and propensity for learning new skills.

SKILLS & PERSONAL ATTRIBUTES

- Computer Operating System and Software Knowledge (Windows, MS Excel, MS Word, MS PowerPoint, MS Publisher, MS Access & E-mail).
- Clerical Skills
- Good Interpersonal and Communication Skills (Speaks and Understands basic English)
- Fast Learner, Flexible and Pro-active
- Adapts easily to multi-cultural and multi-disciplinary team.
- Have a Pleasant Personality.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

EDUCATION

Dalanawan Elementary School – 2012 - 2013

San Marcelino National High School- 2016-2017

San Marcelino Senior High School – Technical Vocational
Livelihood, Track Industrial Arts Strand – Shield Metallic Arc
Weilding (SMAW) – 2018-2019

President Ramon Magsaysay State University – Bachelor of
Science and Computer Science – 2019-2023

PERSONAL DATA

Address in the Philippines : Aglao, San Marcelino Zambales

Date of Birth : June 30, 2001

Place of Birth : Aglao, San Marcelino Zambales

Sex : Male

Nationality : Filipino

Languages : English, Tagalog

REFERENCES

Available upon request



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Rem Carl Antonio

Requidan St. Pamatawan Subic Zambales ,Philippines

Mobile # +63 9158901825

E-mail address:

remcarlmerza@gmail.com

Portfolio:

<https://github.com/friedGarlic?tab=repositories>

PROFILE

Strong will to train and learn, Fair minded as natural leader who thrives on the challenges. Self-motivated, hardworking individual, and enjoy learning new knowledges.

SKILLS & PERSONAL ATTRIBUTES

- Computer Operating System and Software Knowledge (Windows, MS Excel, MS Word, MS Powerpoint, MS Publisher, MS Access & E-mail).
- Costumer Service Support, Technical Support Service
- Strong Interpersonal and Communication Skills (Speaks and Understands English)
- Fast Learner, Flexible and Pro-active
- Tech Savvy
- Intermediate Skills in Developing and Designing .Net Framework Systems, 3D models.



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

EDUCATION

Sta. Maria Elementary School (Middle School)
Purok 5 San Jose Castillejos, Zambales
Graduate 2011-2012

St. Nicholas Academy of Castillejos Inc. (Junior Highschool)
San Juan Castillejos, Zambales
Moved up 2016-2017

Columban College Inc. Basic Education
Asinan, Olongapo City
(Currently Studying)

WORK EXPERIENCE

Computer Service Technician (TRAINEE)

Philippine Statistics Authority

- Performs regular maintenance in computer hardware
- Provide help and advice, technical support, troubleshoot/diagnostic computer hardware issues.

Online Instructor

Kodland

- Teaching with online module and leading online discussions of the course material via forums and web chat. Responds to student comments and questions.

Technical Support Representative

Henry Schein One

- Performs technical assistance using remote access to client workstation or servers, resolving technical issues concerning customer's account or company software infrastructure, instructions and walkthrough.
- Schedule appointment for installation, updates, debug that Henry Schein One provides to clients.