Development Of Radio Frequency Identification Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI)

A Capstone Project

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For The Degree of Bachelor of Science in Information Technology

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DEDICATION

This research paper is dedicated to our beloved parents. Your unwavering support, encouragement, and sacrifices have been the backbone of our journey. Your belief in us, even when we had little time to spend with you, provided the strength and motivation needed to complete this project. We are deeply grateful for your financial support, understanding, and constant love. This achievement is as much yours as it is ours. Thank you for always being there for us.

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ABSTRACT

This research addresses the critical need for an automated attendance management system with integrated payroll at the Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI). The manual processes previously in place led to significant inefficiencies, including excessive paperwork, error-prone records, and delays in payroll processing, adversely affecting employee morale and trust. To mitigate these issues, an innovative Attendance Monitoring System utilizing RFID technology was developed, following the agile Software Development Life Cycle (SDLC). The system was evaluated through a survey, with respondents rating it highly across multiple criteria, achieving a weighted mean of 4.42, indicating strong agreement on its effectiveness.

The implementation results demonstrated that the system significantly improves attendance tracking by providing real-time data, thus enhancing punctuality and productivity. However, challenges remain in the seamless generation of payroll, suggesting the need for further system enhancements. This study underscores the importance of integrating real-time attendance tracking to optimize operational efficiency in educational institutions. It also highlights the necessity for ongoing research and development to refine such systems, ensuring accurate and efficient integration with payroll processes, thereby fostering a more effective operational environment for farm schools like MAIFSI.

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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

INTRODUCTION

Technology is rapidly developing, making attendance management and payroll processing essential for any organization in the industrial era 4.0. This is due to the use of the internet and smartphones. Attendance monitoring can be directly related to the payroll system by using the attendance data to calculate employee pay. By tracking the attendance of each employee using an attendance monitoring system, the system can determine the number of hours each employee has worked and the number of hours they were absent or tardy. This data can then be integrated with the payroll system to ensure that employees are paid accurately based on their attendance records. For example, if an employee was absent for one day in a pay period, the attendance monitoring system would record that absence and the payroll system would deduct the appropriate amount from the employee's pay. Integrating attendance monitoring with the payroll system can streamline the payroll process and reduce errors that may occur when manually tracking attendance and calculating pay. It can also ensure that employees are paid fairly and accurately based on their actual attendance record. According to the American Psychological Association (2023), a payroll monitoring system is defined as "a computerized tool used by businesses to automate and streamline the payroll process, including the calculation of employee wages, salaries, tax deductions, benefits, and the generation of paychecks".

Several system solutions can help manage and reduce absenteeism and tardiness in the workplace. One solution for these challenges is to Implement an attendance system with payroll integration that can help address this challenge. Some studies have

explored the benefits of using such systems, as outlined below. One study by Sahu and Joshi (2018) investigated the impact of an attendance monitoring system on employee productivity and attendance in an Indian manufacturing organization. The authors found that the attendance monitoring system improved attendance by 10%, reduced absenteeism by 20%, and increased productivity by 15%. The authors concluded that implementing such a system could be beneficial for organizations.

In the Philippines, a study conducted by Hernandez (2019) aimed to develop an attendance monitoring system with payroll for a private school in the country. The study found that the developed system improved the accuracy and efficiency of the attendance monitoring and payroll processes, resulting in cost savings and increased employee satisfaction. Institutions are now adapting technology to aid their process. One of the said technologies is Radio Frequency Identification or RFID which can be used in systems. Systems enable institutions to have their processes done efficiently. Incorporating the technology and the Attendance Monitoring Systems will enable institutions to monitor the attendance of their employees without taking up much time. According to Kumar (2018), RFID technology can be used to record attendance and calculate payroll, reducing errors and administrative burdens.

Despite technological advancement, the Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) of Mercedes, Silago, Sitio Kawayan, Southern Leyte encountered challenges in ensuring accurate and timely attendance tracking and payroll processing, which in turn, affected their overall productivity and efficiency. MAIFSI faced challenges in managing its attendance and payroll system using manual methods. According to the school administrator, recording attendance manually involves a lot of paperwork, and the process can be prone to errors and fraudulent practices. Manual payroll processing can lead to delays and errors, which can affect employee morale and

lead to mistrust between employees and management. Manual methods are not effective nowadays. With all the processes the institutions do, monitoring manually is time-consuming and requires a lot of manpower and effort.

To provide a solution to these gaps encountered by MAIFSI, the researcher proposed a system entitled “Radio Frequency Identification (RFID) Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI)” to improve attendance tracking and promote punctuality and productivity in the workplace. By tracking employee attendance in real-time, these systems can help identify issues with absenteeism and tardiness immediately and take corrective action (Hirsch, 2018). Thus, this project aims to design, develop, and implement a system that will help enhance employee productivity and improve the efficiency of the farm school.

Objectives of the Study

Generally, this study aims the develop of "Radio Frequency Identification (RFID) Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI)" which will help ease the process of monitoring the attendance and the payroll of the employees.

Specifically, the research project aims:

1. To automate the attendance process, eliminating the need for manual tracking and reducing errors and time consumption.

2. To use plug-and-play RFID READER then RFID Card to track the attendance of the employees by swiping their RFID Cards when entering and leaving the room.

3. To enhance the record of the employees' movements in and out of the room and provide an accurate record of attendance.

4. To ensure secure and reliable data.

Significance of the Study

The researchers put forth a system called " Radio Frequency Identification (RFID) Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) " to enhance the existing attendance and payroll monitoring system by addressing the issues encountered with the current process. The proposed research has the potential to benefit the following groups:

MAIFSI

The study aims to speed up employee attendance monitoring with payroll by introducing a new system. This system will simplify the monitoring of attendance of the employee that would generate payroll based on their time of work.

School Admin and Personnel

The automatic computation of employees’ salaries will simplify the process significantly. This new system will also facilitate the timely attendance of the employees.

Other Academic Institutions

This system will provide valuable insights into the use of RFID technology for Attendance monitoring and Payroll systems, which can be beneficial for future researchers studying the same technology.

Future Researchers

It provides a platform for them to build upon existing knowledge and expand the frontiers of their respective fields. By gaining access to the findings of previous research, they can save time and resources, avoiding redundant studies and exploring new avenues for inquiry.

Scope and Limitation

This research paper focuses on the development of a system for the Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI). The study aims to improve the attendance tracking and payroll processing of employees to enhance their productivity at work. The research period is one year, with a sole focus on attendance monitoring and payroll processing, excluding other matters such as student attendance and registrar tasks.

The goal of the study is to provide a better and more efficient experience for attendance tracking and payroll processing at MAIFSI. However, the research is subject to several limitations, including:

- The evaluation of only the employees of the school who will use the RFID card for attendance monitoring.
- Restricted system access for only the School Administrator

- Possible limitations in the development of other payroll features due to time constraints.

Chapter II

REVIEW OF RELATED LITERATURE

In this chapter, a concise review is presented of recent literature, studies, and systems related to attendance monitoring with payroll systems.

ATTENDANCE MONITORING SYSTEM

Attendance monitoring is an essential task for businesses to ensure that their employees are present and on time, and to monitor their productivity. A robust attendance monitoring system helps businesses eliminate time theft and reduce absenteeism by providing a more accurate record of employee attendance. In a study by Singh (2019), the author emphasized the importance of accurate attendance monitoring and the challenges associated with manual systems, including the risk of data loss, human error, and fraud. The author recommended the implementation of a biometric attendance monitoring system to improve accuracy and security. In a study by Pal (2019), the author highlighted the limitations of manual attendance monitoring, including the potential for time theft, difficulty in tracking attendance, and delay in payroll processing. The author suggested the use of a computerized attendance monitoring system that uses RFID technology to track employee attendance, which can improve efficiency and reduce the risk of errors. In a more recent study by Gokhale (2021), the author discussed the challenges of manual attendance monitoring, including the potential for fraud and the difficulty in auditing attendance records. The author recommended the implementation of a cloud-based attendance monitoring system that can be accessed from anywhere, which can improve accessibility and security. This system can also help businesses track employee performance and identify areas where improvements can be made. An automated attendance monitoring system can save time

and resources by eliminating the need for manual data entry and record-keeping. Additionally, this system can generate reports that provide valuable insights into attendance patterns and trends, allowing businesses to make data-driven decisions and take appropriate action where necessary.

RFID TECHNOLOGY

In recent years, the use of RFID technology has continued to be a popular topic in the literature, with various studies exploring its potential applications and benefits. Thus, an RFID card-based attendance system can help address these issues and ensure that employees arrive on time, leading to increased productivity and cost savings for the organization. According to Taneja et al. (2019), the use of RFID technology in attendance monitoring provides a more accurate and efficient way of recording attendance, as it eliminates the need for manual recording and reduces the chances of errors and fraud. In a study by Cruz (2018), it was found that the use of RFID-based attendance systems can save time and effort for both employees and employers, as it simplifies the process of attendance tracking and eliminates the need for manual data entry. A study by Joshi (2018) revealed that the use of RFID technology in attendance monitoring can be costly to implement, especially for small businesses or organizations. In a study by Chen et al. (2019), the authors explored the use of RFID in logistics and supply chain management. The authors emphasized the ability of RFID to improve inventory accuracy, reduce labor costs, and enhance supply chain visibility. The authors also highlighted the importance of integrating RFID with other technologies such as big data and cloud computing to maximize its potential benefits. In a more recent study by Kim (2021), the author examined the use of RFID in the retail industry, emphasizing its ability to improve inventory management, enhance customer experience, and reduce

costs. The author also noted the potential for RFID to enable new business models such as real-time inventory tracking and automatic checkout.

PAYROLL MONITORING SYSTEM

A software application known as a payroll monitoring system has been designed to streamline the process of managing employee salaries and wages. This system automates tasks such as calculating salaries, taxes, and deductions, and generates reports for each employee. The use of this system provides significant advantages to businesses by eliminating errors and saving time, making payroll processing more efficient and less prone to errors. It also ensures compliance with labor laws and regulations, as well as accurate and timely payments to employees. HR personnel and finance teams can track attendance, leave, overtime, and other related data with a payroll monitoring system, which can be used to generate comprehensive reports for management. According to a study conducted by Bui (2021), employee punctuality can positively impact work productivity and lead to increased work output. Additionally, a study by Scholarios et al. (2018) found that lateness and absenteeism can result in significant financial losses for organizations. Another study by Masood (2021) explored the impact of implementing an automated payroll system on employee satisfaction and retention in a Pakistani context. The authors found that the automated payroll system improved employee satisfaction and retention, as it reduced errors and delays in payroll processing, and ensured timely and accurate payment of salaries. The authors suggested that businesses should consider implementing such systems to improve employee satisfaction and retention. In the context of MAIFSI's Attendance Monitoring and Payroll System using RFID Cards, the implementation of an electronic attendance

system will not ensure that 100% of the employees may arrive on time but it will minimize tardiness. This, in turn, can increase work productivity and help meet the organization's goals and objectives.

RELATED FOREIGN STUDIES

There have been several foreign studies conducted to examine the effectiveness of implementing an attendance system with payroll using RFID card technology. One study conducted by Hamid and Hameed (2018) in Pakistan found that the implementation of an RFID-based attendance system led to a reduction in absenteeism, increased employee punctuality, and improved overall organizational performance. Additionally, a study conducted by Chaudhary and Mohania (2019) in India reported that the use of RFID technology for attendance monitoring resulted in increased accuracy, reduced administrative workload, and improved employee satisfaction. On the other hand, some studies have also highlighted certain disadvantages of using RFID-based attendance systems. A study conducted by Shaikh et al. (2018) in Oman reported that the implementation of RFID technology for attendance monitoring may lead to concerns over privacy and security, as well as potential technical issues such as signal interference and reader malfunction. Another study by Feng et al. (2017) in China found that RFID-based attendance systems may not be suitable for large-scale applications due to limitations in signal transmission range and interference from other devices. Several foreign studies have been conducted on the effectiveness of RFID-based attendance systems with payroll. Shukla (2017) presented a microcontroller-based attendance system using RFID and GSM technology. Siddique et al. (2017) proposed a smart attendance management and learning system that utilized RFID technology. Dwivedi et al. (2017) also investigated the use of RFID technology in attendance management systems. Their study focused on the development of an RFID-based attendance

management system that integrated with the payroll system. These studies demonstrate the benefits of using RFID technology in attendance management, including the ability to monitor employee attendance and integrate with payroll systems accurately and efficiently.

RELATED LOCAL STUDIES

Several local studies in the Philippines have explored the implementation of employee attendance systems with payroll One such study was carried out by Agripa (2022) from the Sorsogon State University. They created an Employee Attendance and Management System, and the results showed that SorSU --CC personnel gave it a positive review. The created system demonstrated a user-friendly, effective, economical, and flexible method of monitoring workers' attendance via contactless transactions without compromising the dependability and accuracy of the attendance reports. Similarly, Lao and Mendoza (2018) developed a web-based attendance system with payroll for the state university in the Philippines. The system was found to be effective in reducing the time and effort required for manual attendance monitoring and payroll processing, resulting in increased efficiency and accuracy. Other studies, such as the one conducted by Gonzales (2017), focused on evaluating the effectiveness and usability of RFID-based attendance systems with payroll for different organizations in the Philippines. These studies provide valuable insights into the benefits and challenges of implementing employee attendance systems with payroll in the local context. In a study conducted by Calanog (2017), it was found that the implementation of an attendance monitoring system using biometric technology resulted in a significant reduction in tardiness and absenteeism among employees. Another study by Catli et al. (2018) revealed that using an electronic attendance system in a hospital setting resulted

in improved productivity, employee satisfaction, and better management of human resources.

Thus, the use of an RFID card system for attendance monitoring is considered a solution to the challenges of using a manual attendance system. It provides accurate and reliable data for attendance monitoring and payroll computation, reduces administrative time, and costs, and enhances the security and accountability of the attendance process. Organizations and employees both benefit from an automated attendance system. Organizations need to adopt modern attendance monitoring systems such as the RFID card system to improve their operations and achieve their goals. The use of an attendance system with payroll, particularly the use of RFID cards, has been proven effective in various studies both locally and abroad. With the use of RFID technology, these challenges are addressed as it provides a reliable and efficient system that can monitor employee attendance and ensure accurate payroll management. The importance of attending work on time has also been highlighted as it significantly impacts employee productivity and overall business performance. With the implementation of an attendance system, employees are encouraged to come to work on time, leading to increased productivity and output. While there are disadvantages to using an attendance system with RFID cards, such as potential data breaches and the cost of implementing the system, its benefits outweigh the drawbacks. It is important for institutions like MAIFSI to carefully weigh the advantages and disadvantages and consider factors such as cost and security in implementing an attendance system with payroll. Through this review of related literature, it is evident that the use of an attendance system with payroll, particularly with the use of RFID technology, can provide significant benefits to institutions like MAIFSI. As the business landscape continues to evolve and become

more technology-driven, companies must keep up with the times and adopt more efficient systems to remain competitive.

CHAPTER III

TECHNICAL BACKGROUND

THE TECHNICALITY OF THE PROJECT

The proponent gathered information on the project and brainstormed technologies that may be applied to aid in boosting the system& development. The Radio Frequency Identification (RFID) Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) is a system that will help the school administrator monitor the attendance of the faculty/employee that generates payroll without having to go through the traditional approach.

These are the following technologies to be used.

Hardware Requirements

- Processor – 11th Gen Intel(R) Core (TM) i5-1135G7 @ 2.40GHz 2.42 GHz
- Memory (RAM) – 8.00 GB (7.78 GB usable)
- Hard Disk – 500G and above
- Plug and Play RFID reader with cards

Hardware Requirements:

Plug And Play RFID Reader

An RFID Reader is a device that reads information from RFID tags or cards. It uses radio waves to communicate with the RFID tags and retrieve data.

RFID Card

An RFID Card is a small plastic card with an embedded RFID chip that stores data. It can be used to identify a person or object and can be read by an RFID scanner.

PC Monitor

A display screen is used to view output from a computer. It can be used to display the attendance data collected by the system.

Software Requirements:

Visual Studio Code

It is a source code editor developed by Microsoft. In an attendance monitoring system with payroll, Visual Studio Code can be used to write and edit PHP and JavaScript code, as well as to debug and test the code.

XAMPP

It is a cross-platform web server solution that includes Apache, MySQL, PHP, and Perl. In an attendance monitoring system with payroll, XAMPP can be used to host the web application and the database.

Programming Requirements:

PHP

It stands for Hypertext Preprocessor. PHP is a server-side scripting language used for web development. In an attendance monitoring system with payroll, PHP can be used to build the web interface, process data from the user interface, and interact with the database.

JavaScript

It is a scripting language used to create interactive web pages. In an attendance monitoring system with payroll, JavaScript can be used to enhance the user interface, such as by providing visual feedback to the user or validating user input.

AJAX

It stands for Asynchronous JavaScript and XML. It is a technique used to exchange data with a server without requiring a page reload. In an attendance monitoring system with payroll, AJAX can be used to update the user interface dynamically, such as by displaying attendance records or calculating payroll in real time.

HTML5

It is the latest version of the Hypertext Markup Language used to create web pages. In an attendance monitoring system with payroll, HTML5 can be used to structure the content of the web page and provide semantic meaning to the data.

Bootstrap

It is a popular front-end framework for web development that provides pre-built CSS and JavaScript components. In an attendance monitoring system with payroll, Bootstrap can be used to create a responsive and user-friendly interface for the web application.

The proponents use the agile method in the Software life cycle (SDLC) in developing the proposed “Radio Frequency Identification (RFID) Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI)”. The Agile methodology is often preferred for software development projects where the requirements and scope may evolve or change during the development cycle. It allows for flexibility and adaptability to the needs of the project and the stakeholders involved (Gallagher, 2021). In the case of (RFID) Attendance Monitoring with the Payroll System of MAIFSI Farm School, this method may have been chosen because it allows for continuous feedback and improvements to be made during development, resulting in a more customized and effective system.

The Technicality of the Project

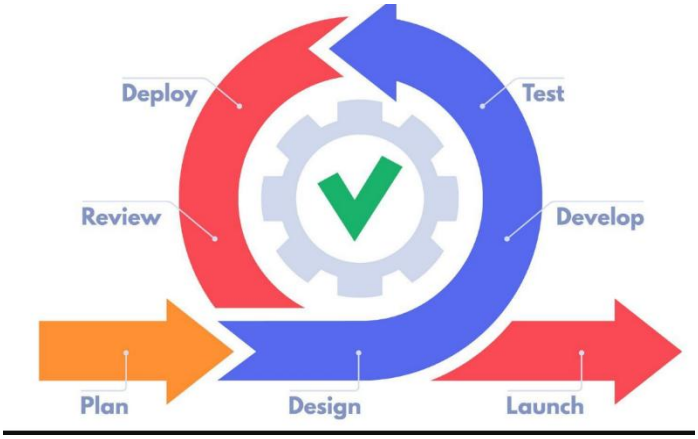


Figure 1*: *Agile method in the Software life cycle (SDLC)

[PLAN] -> [DESIGN] -> [DEVELOP] -> [TEST] -> [DEPLOY] -> [REVIEW] -> [LAUNCH]

In Figure 1, arrows were used to show the flow of activities or steps. In this case, you can use arrows to show the flow of the Agile development process, as follows: Plan, Design, Develop, Test, Deploy, Review, and Launch. The arrows show the sequence of activities or steps, starting with the plan and ending with launching the final version of the system.

Plan: This step involves working with stakeholders to plan the whole process of the system on how it will carry out this project to understand what the system needs to do and how it will be used.

Design: Once it is planned, the next step is to design the system. This involves creating user stories and wireframes for each feature, which will serve as a blueprint for development.

Develop: With the planning and design complete, the development team begins building the system. This is typically done in small increments or iterations, with each iteration adding new features or improving existing ones.

Test and deploy: Once an iteration completed, the system is tested and deployed by stakeholders to ensure that it meets the requirements and is working as expected. This feedback is used to refine the system and make improvements as needed.

Review: Based on stakeholder feedback, the development team reviews the system and repeats the plan, design, development, and test cycle until the system meets all requirements and stakeholders are satisfied.

Launch: Once the system is complete and stakeholders are satisfied, the final version is released.

The Agile methodology allows for constant feedback and adjustment, resulting in a system that better meets the needs of the stakeholders. By using this methodology, it can be developed in a way that ensures it is flexible and adaptive to any changes or evolving requirements that may arise (Gonsalves, 2020; Shore & Warden, 2019).

System Architecture

The overall architecture of the system is illustrated in Figure 2, where the main components are shown. Each of these components will be described in the following sections.

Architectural Design of the Developed System

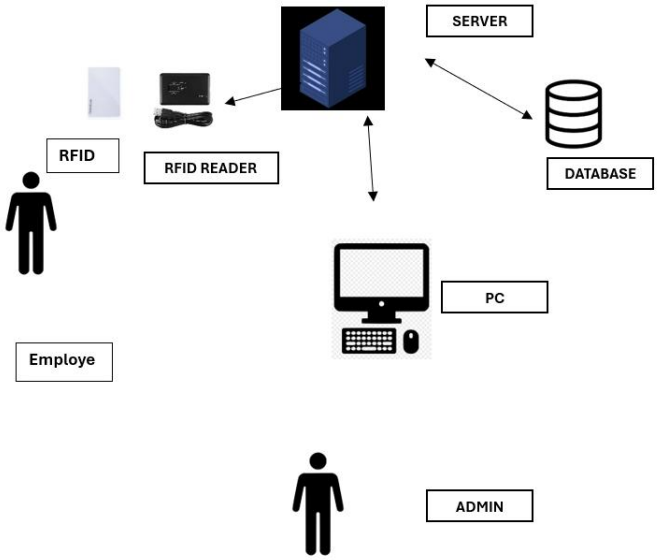


Figure 2*: *System Architecture

ATTENDANCE MONITORING W/ PAYROLL

RFID Readers: These are physical devices placed at various locations, such as entry and exit points, or workstations. They are responsible for capturing the RFID tag information of employees.

RFID Middleware Software: This software acts as a bridge between the RFID readers and the Attendance Monitoring Server. It receives the data from the RFID readers, processes, and formats it, and then sends it to the server for further processing.

Attendance Monitoring Server: This is the central component of the system. It receives the attendance data from the RFID middleware and performs tasks such as storing the attendance records, generating reports, calculating working hours, and calculating payroll based on the attendance data.

Database: The attendance monitoring server interacts with a database to store the attendance records and other relevant data. The database contains tables for employee details, attendance logs, and payroll calculations. It serves as a persistent storage for the system.

PC: This component provides a graphical interface for administrators and HR personnel to interact with the system. It allows them to view attendance data, manage employee information, generate reports, and perform other administrative tasks related to attendance monitoring and payroll.

The RFID readers capture RFID tag information, which is then processed by the RFID middleware software. The attendance monitoring server receives this processed data, stores it in a database, performs attendance calculations, and generates payroll. The user interface enables system administrators to interact with the system and access relevant information and functionalities.

CHAPTER IV

METHODOLOGY, RESULTS AND DISCUSSION

This chapter presents the requirements analysis and documentation, design of software and processes, development method and testing, system prototype and description, implementation plan and results.

Environment (only for org-specific capstone projects)

The research was carried out at Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) in Mercedes, Silago, Southern Leyte with the current School Administrator, Mr. Maximo T. Locop.

LOCAL

The research study was conducted within the grounds of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI). This specific location was chosen to address the existing attendance management challenges faced by the Farm School. The research involved the dedicated faculty and staff of MAIFSI. Each faculty member's participation in the study was facilitated by the researchers within the welcoming confines of the farm school building.

The figure below shows the location map of the study locale.

Figure 3*: *Location Map of Mercedes Agripreneur Integrated Farm School Incorporated

Population of the Study

The researcher's main goal is to create a system that solves the problems of the slow and labor-intensive attendance tracking system. They conduct interviews to understand how the current manual system works and use surveys to gather insights from MAIFSI employees for a complete understanding.

Total population sampling is used in this research study since the researcher chose to examine the entire population because it's the most practical to use because the sample size is manageable. Total population sampling is a type of purposive sampling technique that involves examining the entire population that has a particular set of characteristics. It can eliminate any potential bias occurring through sampling technique, but other than that it is not justified to consume more resources and time. Canonizado (2021) Gleaning information from the total population often gives deeper insights into a target population than partial samples would be capable of. It has the potential to allow a researcher to paint a much more complete picture, and greatly reduces guesswork. It also eliminates the risk of biased sample selection that is often encountered in would-be random study samples.

RESPONDENTS	**POPULATION**	**SAMPLE SIZE**
CEO/OWNER	**1**	**1**
FINANCE OFFICER	**1**	**1**
DRIVER	**1**	**1**
IT	**1**	**1**
REGISTRAR	**2**	**2**
TRAINING FACILITATOR	**7**	**7**
MAINTENANCE	**2**	**2**
TOTAL	**15**	**15**

Table 1*: *Respondents of the Study

The table shows the number of respondents of the study where the source data came from. Respondents are composed of people who are involved in the monitoring process. The researchers will conduct surveys to those involved to get a much reliable response.

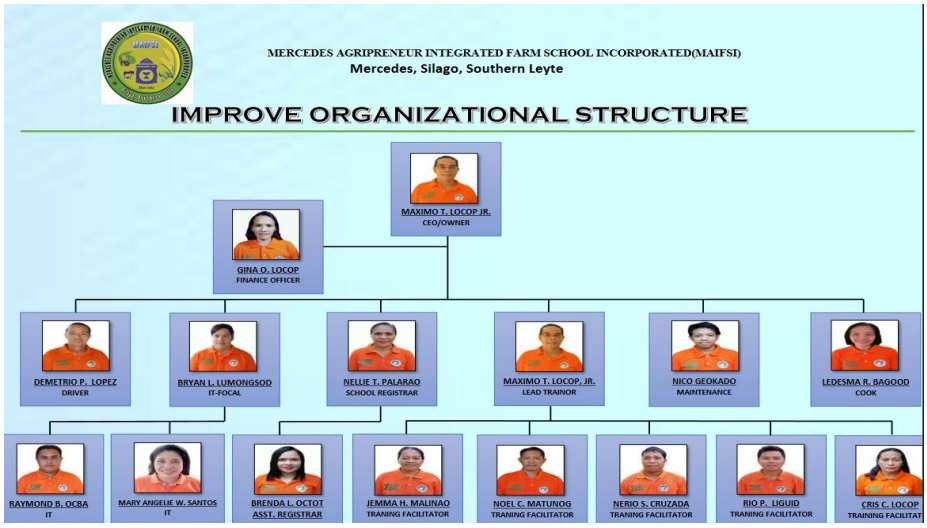


Figure 4*: *Organization Chart/Profile

As illustrated above, the Farm School of Mercedes, Silago, Southern Leyte is composed of the CEO/OWNER, Finance Officer, Driver, IT- Focal, IT Assistant, School Registrar, Assistant Registrar, Lead Trainor, Training Facilitator, Maintenance and Cook.

Requirements Analysis and Documentation

This phase shows the requirements definition needed for the Development of Radio Frequency Identification Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI). It includes the requirements from the users using the survey questionnaires to achieve the recommended features of the Radio Frequency Identification Based Attendance Monitoring with Payroll System.

To develop a Radio Frequency Identification Based Attendance Monitoring with Payroll System, the researchers need to make necessary preparation. Different procedures were made to attain the objective which includes the interviewing of the school administrator and the finance officer for the process of the payroll.

The researchers ask questions to the school administrator and the finance officer about the traditional way of attendance monitoring and payroll process. The researchers also made investigation if this way of attendance using RFID card is effective to the students. Due to this, we established basis to learn its advantages and disadvantages, we also ask the head of the school and the finance about their suggestions and recommendations to this type of transaction. By the help of the review of related literatures, the researcher had gained an overview of what has been studied by previous researchers and writers that gave discernment about the theories, and hypothesis and methodologies.

Through the help of the early research of the topic and online articles; the researchers were able to understand the need to continue the study and the effect of this in handling current problems applicable to this area.

The researchers present the software development tools, hardware specifications, and peopleware recommendations for the development of Radio Frequency Identification Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI).

Software Development

FOR SOFTWARE DEVELOPMENT	
System	Operating system such as Windows 10/11
Database	MySQL
Programming language	Visual Studio Code
Documentation	Microsoft Word 2016

Table 2: *Software Development*

Software Requirements. The software development tools used by the researchers in this project are presented in Table 2.

Hardware Requirements

Hardware Requirements	
Processor	11th Gen Intel(R) Core(TM) i5-1135G7 @ 2.40GHz 2.42 GHz
Memory	8.00 GB (7.78 GB usable) RAM
Others	COMPUTER AND LED MONITOR
Plug And Play RFID Reader	13.56Khz USB Proximity Sensor Smart Contactless RFID ID Card Reader
RFID Card	13.56 MHz/ proximity Card 125kHz-

Table 3: *Hardware Requirements*

Hardware Requirements. The researchers present the minimum hardware resources necessary for the utilization of Radio Frequency Identification Based Attendance

Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) is presented in Table 3.

Peopleware Recommendation

Software Developers	Job Responsibilities
Programmer	The programmer who has sufficient knowledge on Microsoft Visual Basic 6.0. He/she is needed for he/she will be in charge with the design and implementation of the system. He/she should also have knowledge about phpMyAdmin for him/her to add, edit, delete, and manipulate his/her way through the database. In times that the computer malfunctions, he/she should also know the basics on troubleshooting.
Recommended Users	Functions
IT Technician	Assisting in system maintenance and troubleshooting alongside the programmer.
School Administrator	Monitoring employees' attendance through the system.
Finance Officer	Monitoring employees' payroll using the system.
Employees	Utilizing the system for attendance tracking by swiping their cards.

Table 4: *Peopleware Recommendation*

Peopleware Recommendation. Peopleware refers to persons involved in the development of the system with specific task is given in Table 3.0.

DESIGN OF SOFTWARE AND PROCESSES

This phase includes the processes of the software used in the developed system (Radio Frequency Identification Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI)) which includes the system functionalities, discussion and illustration of the Decomposition chart, Data Flow Diagram, and Entity Relationship Diagram.

System Functionality

IT Technician

1. Assisting in System Maintenance:

- Conduct regular system maintenance tasks, including software updates, hardware checks, and system backups, to ensure the smooth operation of the RFID-based Attendance Monitoring with Payroll System.

- Monitor system performance and identify any potential issues or vulnerabilities that may affect system functionality.

2. Troubleshooting:

- Provide technical support and troubleshooting assistance to users encountering issues with the system, such as login problems, hardware malfunctions, or software errors.

- Diagnose and resolve technical issues promptly to minimize downtime and ensure uninterrupted system operation.

- Collaborate with the programmer to troubleshoot and debug software-related issues, including database errors, connectivity issues, and application bugs.

School Administrator

1. Monitoring Employees' Attendance

- Access the attendance monitoring system to view real-time attendance data of employees, including teachers, staff members, and students.

- Monitor attendance trends, such as late arrivals or absenteeism, to identify patterns and take appropriate action, such as implementing disciplinary measures or providing incentives for punctuality.

- Generate attendance reports for administrative purposes, such as payroll processing, performance evaluation, and compliance with regulatory requirements.

Finance Officer:

1. Monitoring Employees' Payroll

- Access the payroll management module of the system to review and verify employee payroll data, including hours worked, overtime hours, and deductions.

- Ensure accuracy and compliance with payroll policies, labor laws, and tax regulations when processing employee salaries and wages.

- Generate payroll reports, including payroll summaries, tax withholding reports, and employee earnings statements, for financial record-keeping and auditing purposes.

Employees

1. Utilizing the System for Attendance Tracking

- Use their assigned RFID cards to swipe in and out of the school premises or specific areas equipped with RFID readers to record their attendance automatically.

- Verify attendance records through the system to ensure accuracy and resolve any discrepancies, such as missing punches or incorrect timestamps.

- Ask the authorized personnel to access their own attendance data and view attendance history to track their own attendance patterns and identify areas for improvement, such as punctuality or attendance consistency.

The researchers present the data flow diagram and the functional decomposition diagram of the system which show the procedures of each function, the users, and the expected outputs of the developed system.

Functional Decomposition Diagram

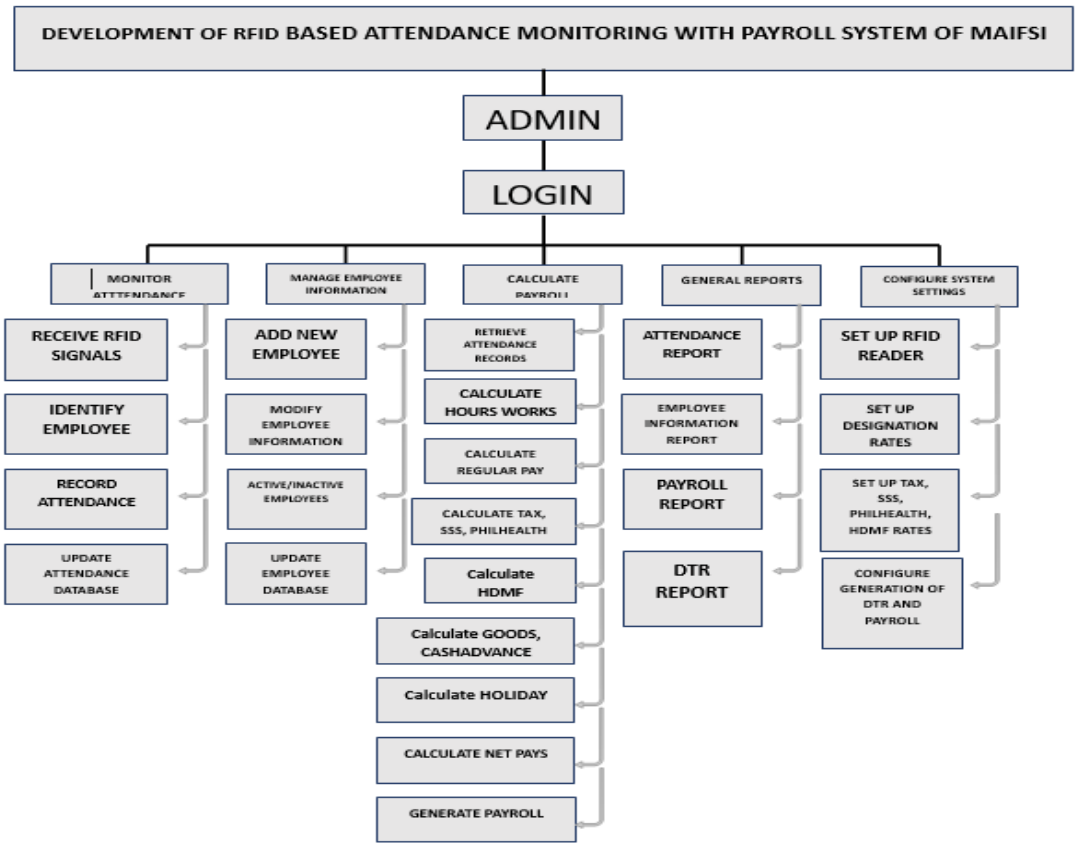


Figure 5: *Functional Decomposition Diagram*

The Functional Decomposition Diagram for the RFID-Based Attendance Monitoring and Payroll System of MAIFSI delineates a structured breakdown of the system's functionalities, offering a comprehensive view of its operations. At the core of the

system is the Admin role, which serves as the central authority with access to all functionalities, primarily facilitated through the login process. The system's functionalities are then categorized into several key components.

Based on the diagram above firstly, its shows the attendance monitoring for the employees which encompasses tasks such as receiving RFID signals, identifying employees, recording attendance, and updating the attendance database. This ensures accurate tracking of employee presence within the system.

Secondly, management in employee information section allows the admin to add new employees, modify existing information, manage employment status, and maintain an updated employee database, facilitating efficient personnel management.

It shows the calculation of payroll function involves retrieving attendance records, computing hours worked, determining regular pay, calculating deductions for taxes and contributions, handling cash advances, and generating final payroll reports. This component streamlines the payroll process while ensuring accuracy and compliance.

The general reports segment generates various reports, including attendance records, employee information summaries, payroll calculations, and detailed Daily Time Record (DTR) reports, providing valuable insights for decision-making and compliance monitoring.

Lastly, the Configure System Settings aspect that allows for the customization of RFID reader configurations, designation rates, deduction rates, and report generation settings, tailoring the system to the specific needs of MAIFSI.

The diagram above illustrates a systematic framework where the admin can effectively manage attendance, personnel information, payroll processing, report generation, and

system configurations. Each function is further broken down into specific tasks, ensuring clarity, efficiency, and accuracy in the system's operations, ultimately contributing to enhanced organizational management at MAIFSI.

Data Flow Diagram of Attendance Monitoring with Payroll System of MAIFSI

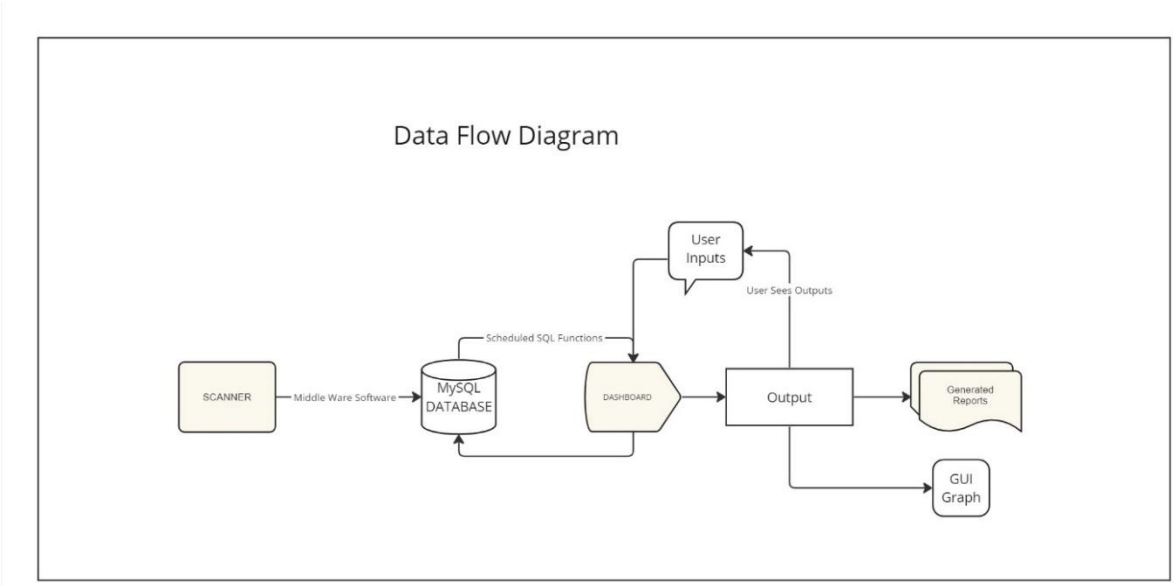


Figure 6: *Data Flow Diagram*

The Data Flow Diagram (DFD) for the RFID-Based Attendance Monitoring System with Payroll for Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI) illustrates the data flow between various system components. The process begins with the scanner, which reads RFID tags when employees check in or out. This data is processed through middleware software and then transferred to a MySQL database, where attendance records, employee information, and payroll data are stored. Scheduled SQL functions periodically process and update the database, performing tasks such as attendance summaries and payroll calculations. The dashboard serves as the user interface, allowing admins to manage and monitor data by retrieving information from the database. Admins can input data, such as system configurations and employee details, and view outputs like attendance summaries and payroll calculations. Processed

data from the dashboard is sent to the output component, which generates various reports, including attendance and payroll reports. These reports can be viewed and printed as needed. Additionally, the GUI graph component displays data in visual formats, such as graphs and charts, to help users understand trends and patterns. Users interact with the system primarily through the dashboard, providing inputs and viewing outputs, ensuring efficient and accurate monitoring of attendance and payroll processing.

DEVELOPMENT AND TESTING PHASE

The following are the requirements needed in Development of Radio Frequency Identification Based Attendance Monitoring with Payroll System of Mercedes Agripreneur Integrated Farm School Incorporated (MAIFSI). It includes the three components of the computer system which are the software, hardware and peopleware.

Software Requirements:

- Operating system such as Windows 10/11
- Programming language: Visual Studio Code
- Database: MySQL
- Documentation: Microsoft Word 2016

Hardware Requirements

● Processor – 11th Gen Intel(R) Core (TM) i5-1135G7 @ 2.40GHz 2.42 GHz

● Memory (RAM) – 8.00 GB (7.78 GB usable)

● Hard Disk – 500G and above

● Plug and Play RFID reader with cards

Peopleware Requirements:

Peopleware refers to persons involved in the development of the system.

- The programmer who has sufficient knowledge on Visual Studio. He/she is needed for he/she will be in charge with the design and implementation of the system. He/she should also have knowledge on database used for him/her to add, edit, delete, and manipulate his/her way through the database. In times that the computer malfunctions, he/she should also know the basics on troubleshooting.

Before developing the system, the researchers conducted an interview to the intended beneficiary if there is a need in the farm school for such system. Unit testing, integration testing and system testing were conducted first to test if the researchers develop the right system. Then, testing such as expert testing and user acceptance or final testing was conducted.

Each part of the system had to be separated in unit testing. Each part had to be tested individually if it is working properly as it should. After unit testing, integration testing follows. Its main purpose is to test if the software units are compatible with each other. Also in integration testing, any inconsistencies are detected between the software units that are integrated called assemblages and/or between the software units and the hardware.

DESCRIPTION OF THE SYSTEM

OUTPUT AND USER-INTERFACE DESIGN

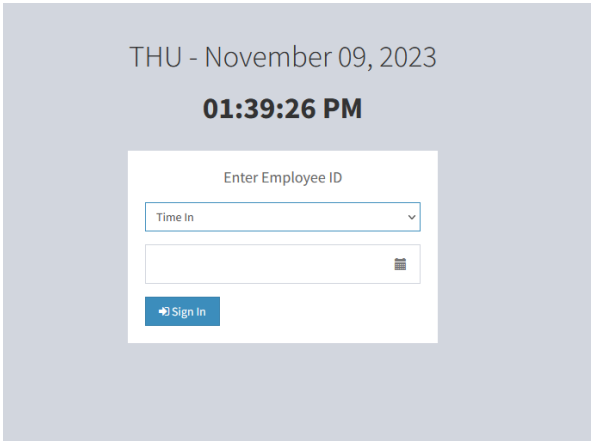


Figure 7: *Attendance(staff) login/logout*

System Functions

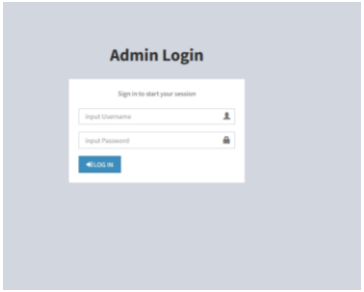


Figure 8: *Admin*

When the user runs the system, this will be the first thing that will be displayed. The user should type the username and the password to access data stored in the system. They should have a valid account registered on the database of the system for them to go to the next page.

NOTE: THE LOGIN FORM HAS A LOGIN ATTEMPT WITH COUNTDOWN.

After logging in successfully, the main form or the home page of the system will show up. It will show the dashboard of the attendance reports showing the total number of employees, percentage on time in the morning and its number of attendances also it will show the late attendance in morning with its percentage. Followed by the afternoon attendance percentage and number of late attendances. Theres also several active employees and inactive employees to be able to determine the number of employees who are actively working. We can also see a graph to visualize the number of employees on time and late by percentage showing its bar graph percentage.

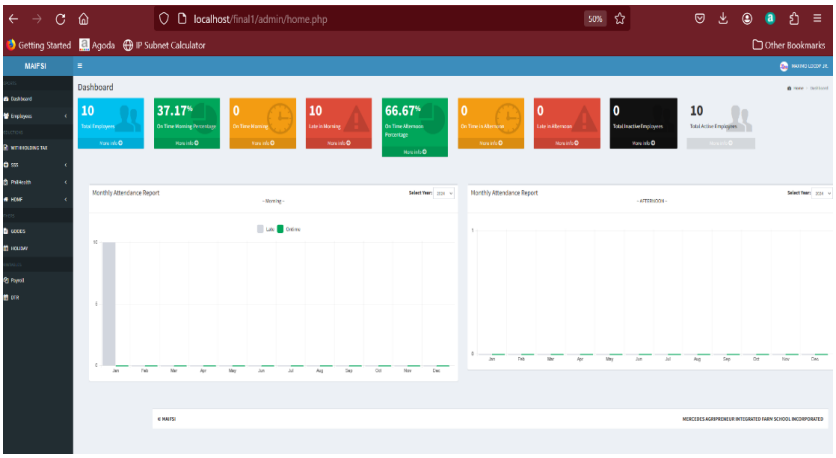


Figure 9: *Reports*

Under the menu bar employees, we can see the employee list on which we can see the employee's information.

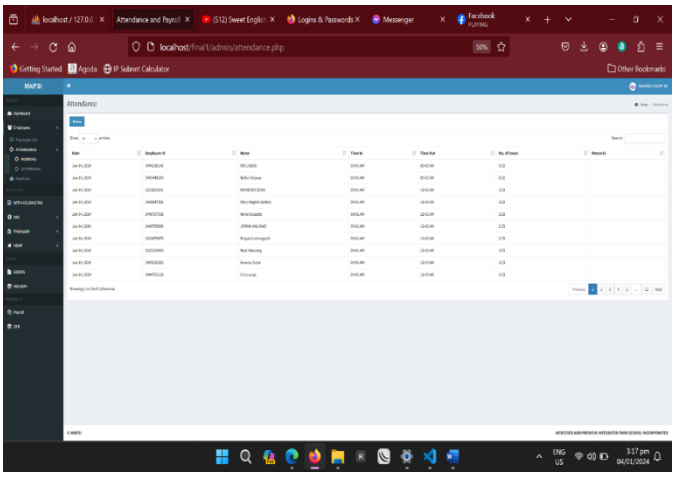


Figure 10: *Morning Attendance*

The attendance form will show up, displaying the employees' attendance time in and time out with the number of hours also worked the remarks. The remarks are used when the admin adds a manual attendance in case the employee forgot their card or for any reason the remark is used for verification.

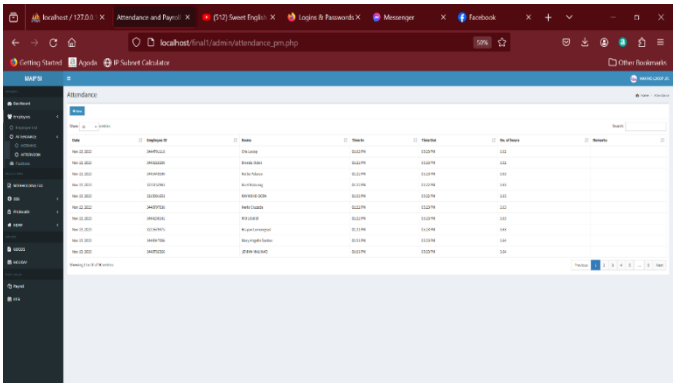


Figure 11: *Afternoon Attendance*

The attendance form in the afternoon will show up, displaying the employees' attendance time in and time out with the number of hours also worked the remarks. The remarks are used when the admin adds a manual attendance in case the employee forgot their card or for any reason the remark is used for verification.

POSITIONS

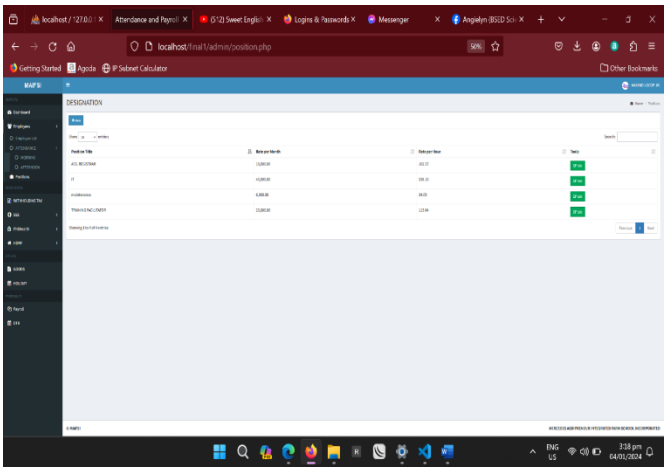


Figure 12: *Positions*

A menu bar is displayed showing the different designation of the employees with its monthly rate and rate per hour. In this form the user can add a new designation with its rating per month. It automatically calculated the rate per hour based on monthly rating. Theres a button for editing employees' monthly rate in case it changes its rating.

WITHHOLDING TAX

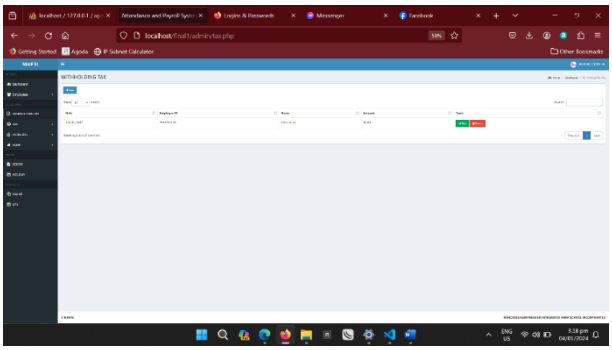


Figure 13: *Withholding Tax*

Withholding tax is displayed this form could add a withholding tax based on employee id and the amount of tax. By providing employee id it will automatically determine the employee's name and this has a button edit and delete in case any changes will be applied.

SSS EMPLOYEE & EMPLOYER SHARE

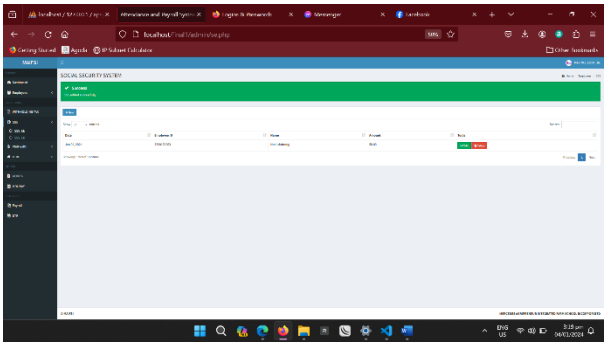


Figure 14: *SSS Employee & Employer Share*

There's a menu bar for social security of the employees. This has SSS_EE and SSS_ER for the share of employee and employer. Theres a button new for adding the SSS additional information with edit and delete button for any changes.

PHILHEALTH EMPLOYEE & EMPLOYER SHARE

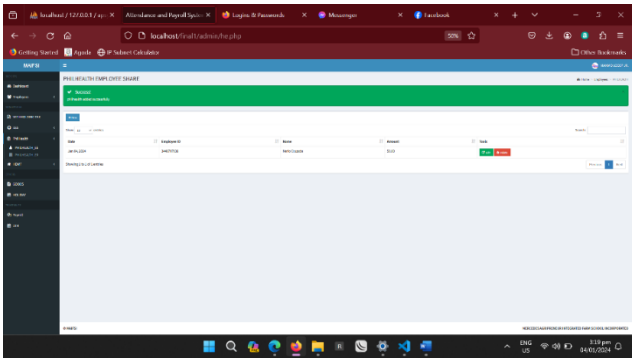


Figure 15: *Philhealth Employee & Employer Share*

There's a menu bar for PhilHealth of the employees. This has PHILHEALTH_EE and PHILHEALTH _ER for the share of employee and employer. Theres a button new for adding the PhilHealth additional information with edit and delete button for any changes.

HDMF EMPLOYEE & EMPLOYER SHARE

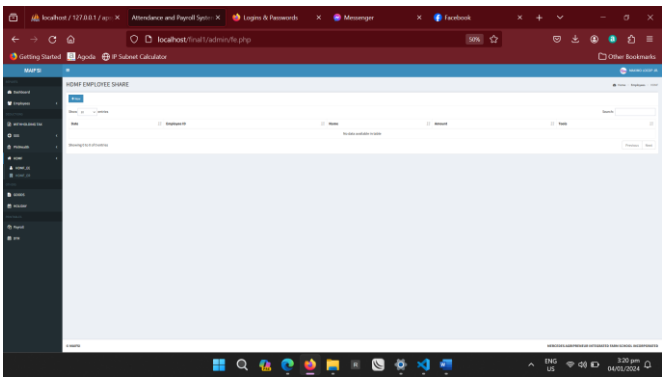


Figure 16: *HDMF Employee & Employer Share*

There's a menu bar for HOME DEVELOPMENT MUTUAL FUND SHORT FOR HDMF of the employees. This has HDMF_EE and HDMF _ER for the share of employee and employer. Theres a button new for adding the HDMF additional information with edit and delete button for any changes.

GOODS

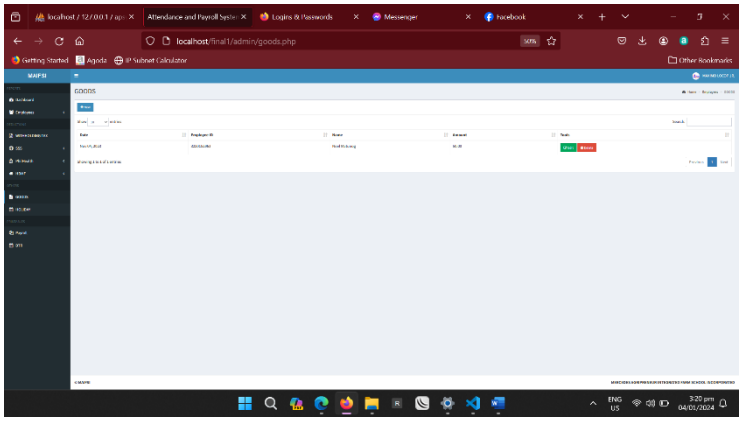


Figure 17: *Goods*

Theres a menu bar for GOODS of the employees. These are the deductions of the employees when they have cash advance or getting some goods of the owner. Theres a button new for adding the GOODS additional information with edit and delete button for any changes.

HOLIDAY

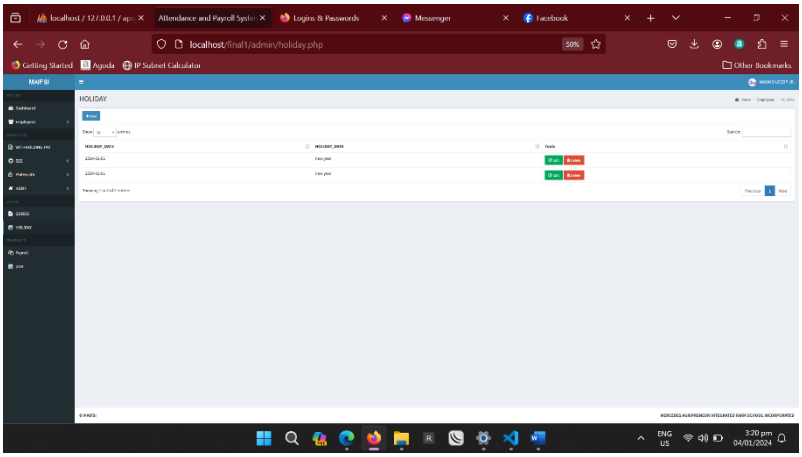


Figure 18: *Holiday*

There's a menu bar for holiday of the employees. These are the holiday that was inputted. Theres a button new for adding the holiday, additional feature like edit and delete button for any changes.

PAYROLL

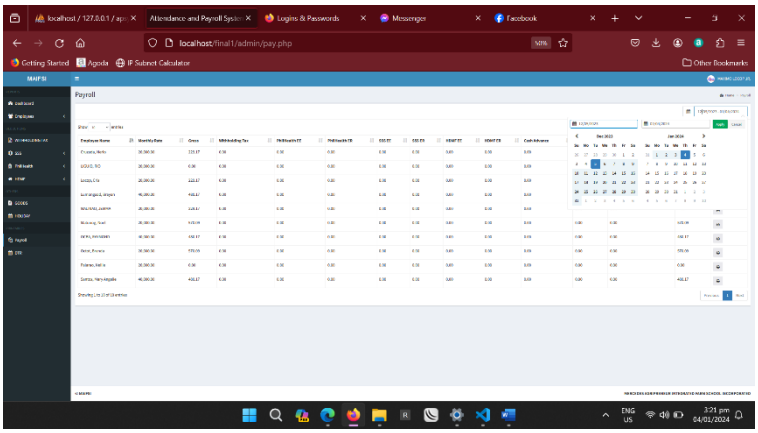


Figure 19: *Payroll*

There's a menu bar for the payroll of the employees. These are the information of calculated payroll of the employees as we can see theres an individual pay slip receipt of the employee's payroll. Theres also a date range that is used for this payroll to generate the total payroll based on the chosen date range.

GENERATING PAYROLL

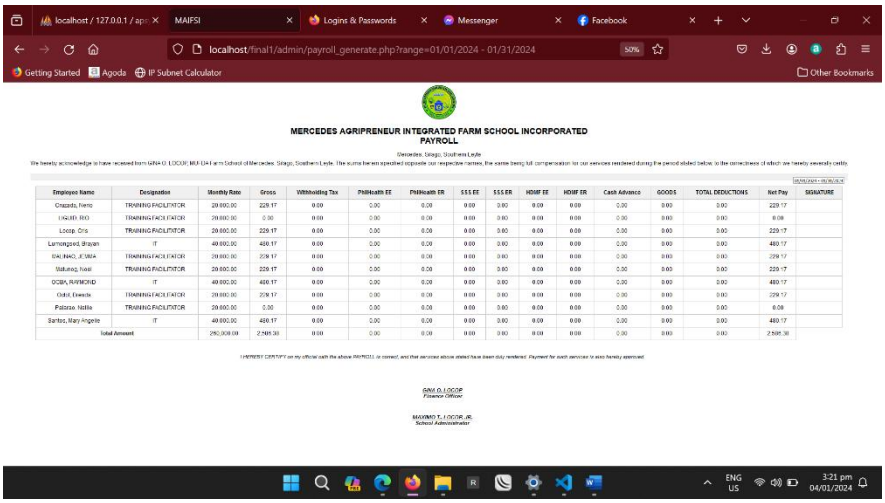


Figure 20: *Generating Payroll*

This form displays the generated date range for the payroll of each employee as shown.

DAILY TIME RECORD

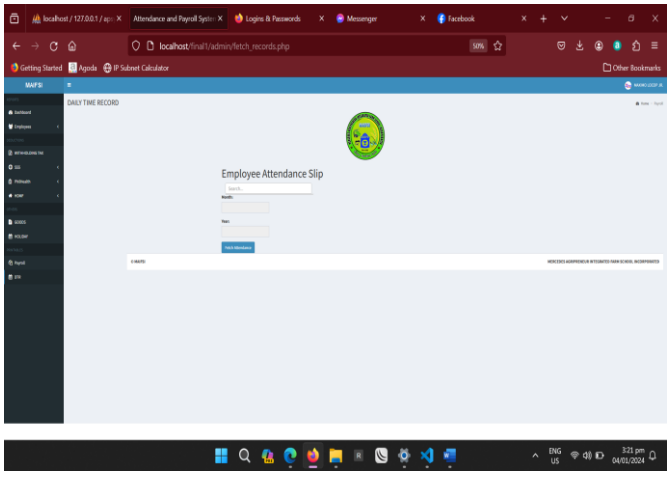
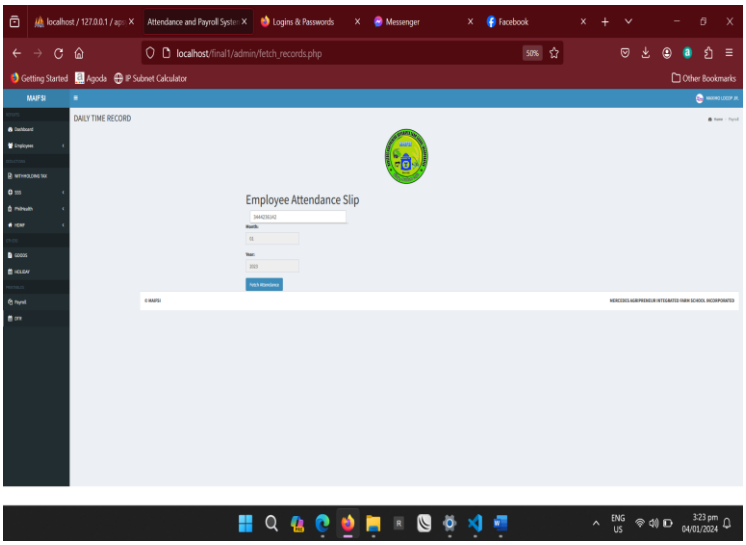


Figure 21: *Daily Time Record*

On DTR menu bar, a search bar is displayed with the month and year. When the employee is being inputted with its chosen month and year. with that chosen date it will generate the date of the attendance of the employee.

Here’s an example on how to input data.



DAILY TIME RECORD GENERATED

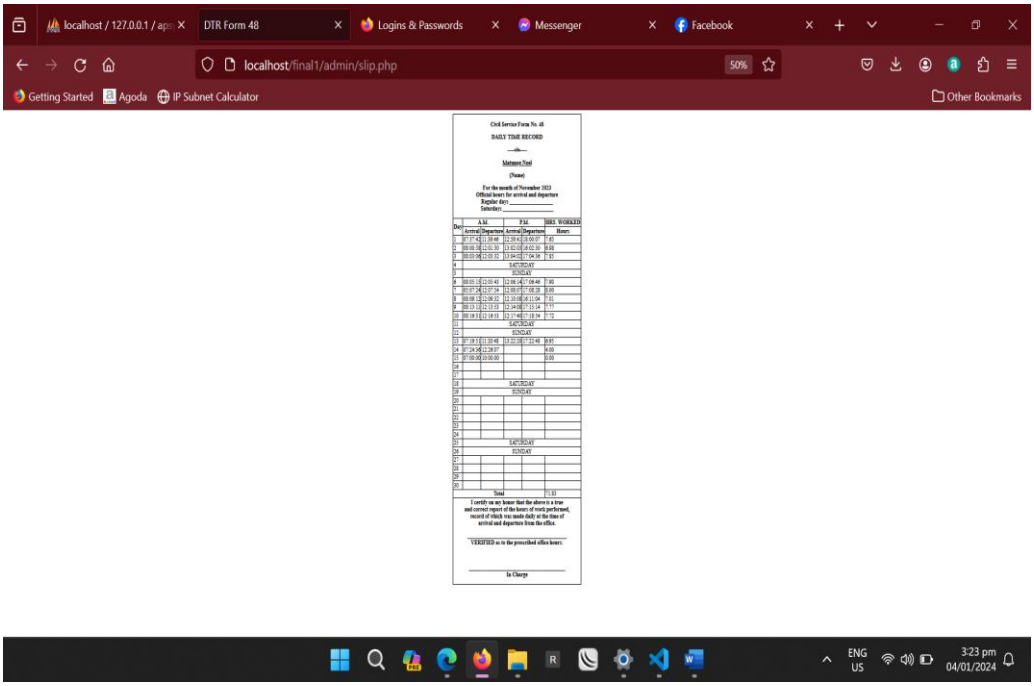


Figure 22: *Daily Time Record Generated*

A form displayed the monthly attendance of the chosen employee we can see also the total worked hour of the employee.

Table 5: Data Dictionary

A Data Dictionary is a collection of names, definitions, and attributes about data elements that are being used or captured in a database, information system, or part of a research project (library.ucmerced.edu, 2022).

STRUCTURE FOR TABLE ADMIN

Column	Type	Null	Default
Id	int(11)	No	
Username	varchar(30)	No	
Password	varchar(60)	No	
Firstname	varchar(50)	No	
Lastname	varchar(50)	No	
Photo	varchar(200)	No	
created_on	Date	No	

Table 5.1: *Structure for Table Admin*

STRUCTURE FOR TABLE MORNING ATTENDANCE

Column	Type	Null	Default
Id	int(11)	No	
employee_id	int(11)	No	
Date	Date	No	
time_in	Time	No	
time_out	Time	No	
num_hr	Double	No	
Status	Text	No	
Remarks	varchar(1000)	No	

Table 5.2: *Structure for Table Morning Attendance*

STRUCTURE FOR TABLE AFTERNOON ATTENDANCE

Column	Type	Null	Default
Id	int(11)	No	
employee_id	int(11)	No	
Date	Date	No	
time_in_pm	Time	No	

Table 5.3: *Structure for Table Afternoon Attendance*

time_out_pm	Time	No	
num_hr_pm	Double	No	
Status	Text	No	
Remarks	varchar(1000)	No	

STRUCTURE FOR TABLE CASHADVANCE

Column	Type	Null	Default
Id	int(11)	No	
date_advance	Date	No	
employee_id	varchar(15)	No	
Amount	Double	No	

Table 5.4: *Structure for Table Cashadvance*

STRUCTURE FOR TABLE EMPLOYEES

Column	Type	Null	Default
status	varchar(15)	No	
id	int(11)	No	
employee_id	varchar(15)	No	
firstname	varchar(50)	No	

lastname	varchar(50)	No	
address	Text	No	
birthdate	Date	No	
bp	Text	No	
contact_info	varchar(100)	No	
gender	varchar(10)	No	
citizenship	varchar(300)	No	
educ	varchar(100)	No	
emergency	Text	No	
health	int(11)	No	
language	Text	No	
sss	int(10)	No	
tin	int(12)	No	
email	varchar(200)	No	
position	Text	No	
schedule_id	int(11)	No	
photo	varchar(200)	No	
created_on	Date	No	

Table 5.5: *Structure for Table Employees*

STRUCTURE FOR TABLE HDMF EMPLOYEE SHARE

Column	Type	Null	Default
Id	int(11)	No	
date_fe	date	No	
employee_id	int(11)	No	
Amount	int(11)	No	

Table 5.6: *Structure for Table HDMF Employee*

STRUCTURE FOR TABLE HDMF EMPLOYER SHARE

Column	Type	Null	Default
id	int(11)	No	
date_fr	Date	No	
employee_id	int(11)	No	
amount	int(11)	No	

Table 5.7: *Structure for Table HDMF Employer Share*

STRUCTURE FOR TABLE GOODS

Column	Type	Null	Default

Id	int(11)	No	
date_goods	Date	No	
employee_id	int(11)	No	
Amount	Double	No	

Table 5.8: *Structure for Table Goods*

STRUCTURE FOR TABLE PHILHEALTH EMPLOYEE SHARE

Column	Type	Null	Default
id	int(11)	No	
date_he	Date	No	
employee_id	int(11)	No	
amount	int(11)	No	

Table 5.9: *Structure for Table Philhealth Employee Share*

STRUCTURE FOR TABLE HOLIDAYS

Column	Type	Null	Default
Id	int(11)	No	
holiday_date	Date	Yes	NULL
holiday_name	varchar(255)	Yes	NULL

Table 5.10: *Structure for Table Holidays*

STRUCTURE FOR TABLE PHILHEALTH EMPLOYER SHARE

Column	Type	Null	Default
Id	int(11)	No	
date_hr	Date	No	
employee_id	int(11)	No	
amount	int(11)	No	

Table 5.11: *Structure for Table Philhealth Employer Share*

STRUCTURE FOR TABLE POSITION

Column	Type	Null	Default
Id	int(11)	No	
description	varchar(150)	No	
month	int(11)	No	
Rate	Double	No	

Table 5.12: *Structure for Table Position*

STRUCTURE FOR TABLE SCHEDULES

Column	Type	Null	Default
Id	int(11)	No	
time_in	Time	No	
time_out	Time	No	
time_in_pm	Time	No	
time_out_pm	Time	No	

Table 5.13: *Structure for Table Schedules*

STRUCTURE FOR TABLE SSS EMPLOYEE SHARE

Column	Type	Null	Default
Id	int(11)	No	
date_se	Date	No	
employee_id	int(11)	No	
amount	int(11)	No	

Table 5.14: Structure for Table SSS Employee Share

STRUCTURE FOR TABLE SSS EMPLOYER SHARE

Column	Type	Null	Default
Id	int(11)	No	
date_sr	Date	No	
employee_id	int(11)	No	
amount	int(11)	No	

Table 5.15: *Structure for Table SSS Employer Share*

STRUCTURE FOR TABLE TAX

Column	Type	Null	Default
Id	int(11)	No	
date_tax	int(11)	No	
employee_id	int(11)	No	
Amount	Double	No	

Table 5.16: *Structure for Table Tax*

IMPLEMENTATION PLAN

Test Plan

Testing is a procedure for identifying program flaws. The goal of testing is to create a method for executing a program with the goal of detecting errors. During testing, the program is run with a set of test cases (input values), and the program's output for the test cases is evaluated to see if the program is performing as it should. To test the software, we employ two techniques. There are two types of testing techniques: black box testing and white box testing. The inputs are provided, and the outputs are verified in black box testing. It also tests the product's overall functionality, such as interface errors. The second technique, white box testing, is used to ensure that the program works properly.

TESTING

We use three types of testing: unit testing, integration testing, and system testing. The goal of the testing is to ensure that the system satisfies the defined requirements.

UNIT TESTING

The purpose of unit testing is to check that isolated code is correct. A unit component is a single function or line of code within an application. The white box testing approach is used for unit testing and is often performed by developer.

INTEGRATION TESTING

After unit testing, the second step of the software testing process is integration testing. Units or individual components of the software are tested in groups during this testing. Integration testing guarantees that software and subsystems work together as a whole. It tests the interfaces of all modules to ensure that they work properly when combined.

SYSTEM TESTING

Its goal is to make the end-user satisfied by ensuring that the system meets all the user experience. The researchers conducted an evaluation survey to assess if they have responded well to the problems they have encountered. The results serve as the answer to their question whether the proposed system answered the existing problems of MAIFSI regarding their employees Attendance Monitoring with payroll. The data that was gathered from a survey were tabulated, computed, and analyzed. The researchers then get the average of the respondents rating for each question where the computation of mean was applied.

Weighted Arithmetic Mean

VARIABLE	DEGREE OF SATISFACTION	RANGE OF WEIGHT
SA	Strongly Agree	4.01-5
A	Agree	3.01-4.00
U	Undecided	2.01-3.00
D	Disagree	1.01-2.00
SD	Strongly Disagree	0-1.00

Table 6: *Weighted Arithmetic Mean*

The table above shows the equivalent range of every satisfaction, this will be the reference if the respondents strongly agree, agree, undecided, disagree or strongly disagree of having the proposed system.

Data gathered from the questionnaires were computed using the formula:

Likert's Scale

Weight = **[(SA*5) + (A*4) + (U*3) + (D*2) + (SD*1)]**

TNR

Where:

TNR = Total number of Respondents= 15

Efficiency of the Proposed System

To automate the attendance process, eliminating the need for manual tracking and reducing errors and time consumption.	**SA**	**D**	**A**	**SD**	**U**	**WEIGHT**	**NARRATIVE**
1. The system efficiently records attendance without requiring manual input.	11		4			4.7	Strongly Agree
2.The system accurately captures attendance data, minimizing errors.	12		3			4.8	Strongly Agree
3. The automated attendance process saves time compared to manual tracking methods.	15					5	Strongly Agree
4. The system effectively updates attendance records in real-time.	14		1			4.9	Strongly Agree
5. The automated attendance system is user-friendly and easy to use.	14		1			4.9	Strongly Agree
TOTAL	66		9			4.86	Strongly Agree

Table 7: *Efficiency of the Proposed System*

The results show that eleven of the respondents strongly agreed while four of them agreed with the weighted mean of 4.7. Based on the computation of the weighted mean of the question regarding the efficiency of the system when it comes to recording attendance without requiring manual input, the computed mean of 4.7 falls right into the category of "Strongly Agree" because most of the respondents see that the proposed system is efficient when it comes to the recording attendance without requiring manual input.

The results indicate that twelve respondents strongly agreed, while three agreed with a weighted mean of 4.8. Upon computing the weighted mean for the question about the system's efficiency in accurately capturing attendance data and minimizing

errors, the resulting mean of 4.8 aligns with the "Strongly Agree" category. This suggests that most respondents perceive the proposed system as highly efficient in accurately capturing attendance data and minimizing errors.

The results show that all respondents strongly agreed with a weighted mean of 5.0. After computing the weighted mean for the question concerning the system's efficiency in automating the attendance process and saving time compared to manual tracking methods, the resulting mean of 5.0 aligns with the "Strongly Agree" category. This indicates that most respondents perceive the proposed system as highly efficient in automating the attendance process and saving time compared to manual tracking methods.

The results show that fourteen respondents strongly agreed, while one respondent agreed with a weighted mean of 4.9. Based on the computation of the weighted mean for the question about the system's efficiency in effectively updating attendance records in real-time, the computed mean of 4.9 falls into the "Strongly Agree" category. This suggests that most respondents perceive the proposed system as highly efficient in updating attendance records effectively in real-time.

The results show that fourteen respondents strongly agreed, while one respondent agreed with a weighted mean of 4.9. Based on the computation of the weighted mean for the question concerning the system's efficiency in being user-friendly and easy to use within the automated attendance system, the computed mean of 4.9 falls into the "Strongly Agree" category. This indicates that most respondents perceive the proposed system as highly efficient in being user-friendly and easy to use within the automated attendance system.

SYSTEM EFFICIENCY OF PAYROLL PROCESS

To automate the payroll process, eliminating the need for manual tracking and reducing errors and time consumption.	SA	D	A	SD	U	WEIGHT	NARRATIVE
The system accurately calculates payroll based on attendance data.		15				2	Disagree
Automating the payroll process reduces errors in salary computation.		15				2	Disagree
The automated payroll system significantly saves time in payroll processing.		15				2	Disagree
The system effectively integrates attendance data into payroll calculations.		15				2	Disagree
The automated payroll system streamlines payment processes efficiently.		15				2	Disagree
TOTAL		75				2	Disagree

Table 8: *System Efficiency of Payroll Process*

The results show that fifteen respondents strongly disagreed, yielding a weighted mean of 2.0. Based on the computed mean for the question about the system's efficiency in automating the payroll process, eliminating the necessity for manual tracking, and reducing errors and time consumption, the resulting mean of 2.0 falls into the "Disagree" category. This suggests that all respondents perceive the proposed system as inefficient when it comes to automating the payroll process, indicating a lack of efficiency in eliminating manual tracking and reducing errors and time consumption.

SYSTEM EFFICIENCY OF RFID PROCESS

To use RFID Card to track the attendance of the employees by swiping their RFID Cards when entering and leaving the room.	SA	D	A	SD	U	WEIGHT	NARRATIVE
1. The RFID-based attendance tracking accurately records entry and exit times.	11		4			4.7	Strongly Agree
1. Using RFID Cards for attendance is a convenient method for employees.	13		2			4.8	Strongly Agree
1. The system effectively identifies individual employees via their RFID Cards.	15					5	Strongly Agree
1. RFID-based attendance tracking enhances security within the premises.	14		1			4.9	Strongly Agree
1. The RFID Card system is reliable for tracking employee attendance.	14		1			4.9	Strongly Agree
TOTAL	67		8			4.86	Strongly Agree

Table 9: *System Efficiency of RFID Process*

The results show that thirteen respondents strongly agreed, while two respondents agreed, resulting in a weighted mean of 4.8. After computing the weighted mean for the question regarding the system's efficiency in using RFID Cards for attendance as a convenient method for employees, the computed mean of 4.8 aligns with the "Strongly Agree" category. This indicates that most respondents perceive the proposed system as highly efficient in employing RFID Cards for attendance, acknowledging it as a convenient method for employees.

The results indicate that all respondents strongly agreed, resulting in a weighted mean of 5.0. After computing the weighted mean for the question regarding the system's efficiency in identifying individual employees via their RFID Cards, the computed mean of 5.0 aligns with the "Strongly Agree" category. This suggests that most respondents perceive the proposed system as highly efficient in identifying individual employees through their RFID Cards.

The results show that fourteen respondents strongly agreed, and one respondent agreed, resulting in a weighted mean of 4.9. After computing the weighted mean for the question regarding the system's efficiency in enhancing security within the premises

through RFID-based attendance tracking, the computed mean of 4.9 aligns with the "Strongly Agree" category. This suggests that most respondents perceive the proposed system as highly efficient in enhancing security within the premises through RFID-based attendance tracking.

The results show that fourteen respondents strongly agreed, while one respondent agreed, resulting in a weighted mean of 4.9. After computing the weighted mean for the question regarding the system's efficiency in using the RFID Card system as a reliable method for tracking employee attendance, the computed mean of 4.9 aligns with the "Strongly Agree" category. This indicates that most respondents perceive the proposed system as highly efficient in utilizing the RFID Card system as a reliable method for tracking employee attendance.

SYSTEM FUNCTIONALITY AND USABILITY

To enhance record of the employees' movements in and out of the room and providing an accurate record of attendance.	SA	D	A	SD	U	WEIGHT	NARRATIVE
1. The system provides detailed and accurate records of employee movements.	15					5	Strongly Agree
2. It effectively distinguishes between entries and exits for attendance records.	15					5	Strongly Agree
3. The system's records accurately reflect actual employee presence.	15					5	Strongly Agree
4. The system ensures comprehensive coverage of all employee movements.	15					5	Strongly Agree
5. The system offers a robust and reliable attendance record.	15					5	Strongly Agree
TOTAL	**75**					**5**	**Strongly Agree**

Table 10: *System Functionality and Usability*

The results show that all fifteen respondents strongly agreed, resulting in a weighted mean of 5.0. However, based on the computation of the weighted mean for

the question regarding the system's efficiency in enhancing the record of employees' movements in and out of the room and providing an accurate attendance record, the computed mean of 5.0 aligns with the 'Strongly Agree' category. This indicates that all respondents perceived the proposed system as highly efficient in enhancing the record of employees' movements and providing accurate attendance records."

SYSTEM RELIABILITY

To prove secure and reliable data	**SA**	**D**	**A**	**SD**	**U**	**WEIGHT**	**NARRATIVE**
1. The system allows only specific accounts to manipulate or modify important information in the system. (e.g. Salary Rate, Employee Information)	15					5	Strongly Agree
2. The system restricts the number of attempts of logging in.	15					5	Strongly Agree
3. The system generates payroll of the employees		15				2	Disagree
4. The system generates accurate computation of payroll.		15				2	Disagree
TOTAL	**30**	30				**3.5**	**Agree**

Table 11: *System Reliability*

The results indicate that all respondents strongly agreed with a weighted mean of 5.0. Based on the computation of the weighted mean for the question concerning the system's efficiency in allowing only specific accounts to manipulate or modify crucial information in the system (e.g., Salary Rate, Employee Information) and restricting the

number of login attempts, the computed mean of 5.0 aligns with the 'Strongly Agree' category. This suggests that most respondents perceive the proposed system as highly efficient in allowing specific accounts to handle critical system information and limiting login attempts.

The results indicate that all fifteen respondents strongly disagreed, resulting in a weighted mean of 2.0. Based on the computation of the weighted mean for the question concerning the system's efficiency in generating payroll for the employees, the computed mean of 2.0 falls into the 'Disagree' category. This suggests that all respondents perceive the proposed system as inefficient in generating accurate computations for the employees' payroll."

IMPLEMENTATION RESULTS

Based on the results gathered in the survey, the system meets the requirements regarding the efficiency, reliability, security, functional suitability, and operability of the system. With the weighted mean of 4.42, the respondents “Strongly Agree” of the proposed system.

The absence of an automated attendance management system with integrated payroll at MAIFSI poses a significant challenge that deeply impacts the farm school's overall functionality. A robust attendance management system is an indispensable asset for any farm school, serving multiple essential purposes. Dependent on manual attendance tracking and payroll computation, Mercedes Agripreneur Integrated Farm School Incorporated faces critical issues. Manual attendance recording involves excessive paperwork, rendering the process error-prone and vulnerable to fraudulent practices. Furthermore, manual payroll processing leads to delays and errors, undermining employee morale and fostering mistrust between staff and management.

In response to these challenges, the researchers initiated an innovative project. They conceptualized and developed an Attendance Monitoring System integrated with Payroll, harnessing RFID technology and following the agile Software Development Life Cycle (SDLC). This system holds tremendous promise in significantly enhancing MAIFSI's attendance tracking capabilities, promoting punctuality, and boosting workplace productivity. Real-time employee attendance tracking allows for immediate identification of tardiness, enabling swift corrective actions.

This research aims not only to streamline attendance management but also to highlight the pivotal role of real-time attendance tracking in optimizing operational efficiency. However, the persistence of manual logbooks in farm schools remains a potential barrier if employees fail to accurately record their real-time attendance, impacting the payroll process. Based on the survey of the system, the results indicate that the Attendance Monitoring System assists Farm School MAIFSI in attendance tracking; however, there are inefficiencies in generating payroll, highlighting the need for further enhancements. Continued research and innovation are imperative to refine attendance management systems, ensuring accurate and seamless integration with payroll processes in farm school settings. This will facilitate a more efficient and effective operational environment for educational institutions like MAIFSI.

DISCUSSION

The absence of an automated attendance management system with integrated payroll at MAIFSI poses a significant challenge that deeply impacts the farm school's overall functionality. A robust attendance management system is an indispensable asset for any farm school, serving multiple essential purposes. Dependent on manual attendance tracking and payroll computation, Mercedes Agripreneur Integrated Farm School Incorporated faces critical issues. Manual attendance recording involves excessive paperwork, rendering the process error-prone and vulnerable to fraudulent practices. Furthermore, manual payroll processing leads to delays and errors, undermining employee morale and fostering mistrust between staff and management.

In response to these challenges, the researchers initiated an innovative project. They conceptualized and developed an Attendance Monitoring System integrated with Payroll, harnessing RFID technology and following the agile Software Development Life Cycle (SDLC). This system holds tremendous promise in significantly enhancing MAIFSI's attendance tracking capabilities, promoting punctuality, and boosting workplace productivity. Real-time employee attendance tracking allows for immediate identification of tardiness, enabling swift corrective actions.

This research aims not only to streamline attendance management but also to highlight the pivotal role of real-time attendance tracking in optimizing operational efficiency. However, the persistence of manual logbooks in farm schools remains a potential barrier if employees fail to accurately record their real-time attendance, impacting the payroll process. Based on the survey of the system, the results indicate that the Attendance Monitoring System assists Farm School MAIFSI in attendance tracking; however, there are inefficiencies in generating payroll, highlighting the need

for further enhancements. Continued research and innovation are imperative to refine attendance management systems, ensuring accurate and seamless integration with payroll processes in farm school settings. This will facilitate a more efficient and effective operational environment for educational institutions like MAIFSI.

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APPPENDICES

RELEVENANT SOURCE CODE

DATABASE CONNECTION

```php
<?php
    $conn = new mysqli('localhost', 'root', '', 'apsystem');

    if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
    }

?>
```

ATTENDANCE AM

```php
<?php
if(isset($_POST['employee'])){
    $output = array('error'=>false);

    include 'conn.php';
    include 'timezone.php';

    $employee = $_POST['employee'];
    $status = $_POST['status'];

    $sql = "SELECT * FROM employees WHERE employee_id = '$employee'";
    $query = $conn->query($sql);

    if($query->num_rows > 0){
        $row = $query->fetch_assoc();
        $id = $row['id'];

        $date_now = date('Y-m-d');

        if($status == 'in'){

            $sql = "SELECT * FROM attendance WHERE employee_id = '$id' AND date = '$date_now' AND time_in IS NOT NULL";
            $query = $conn->query($sql);
            if($query->num_rows > 0){
                $output['error'] = true;
                $output['message'] = 'You have timed in for today';
            }
            else{
                //updates
                $sched = $row['schedule_id'];
                $lognow = date('H:i:s');
                $sql = "SELECT * FROM schedules WHERE id = '$sched'";
                $squery = $conn->query($sql);
                $srow = $squery->fetch_assoc();
                $logstatus = ($lognow > $srow['time_in']) ? 0 : 1;
                //
              $sql = "INSERT INTO attendance (employee_id, date, time_in, status) VALUES ('$id', '$date_now', NOW(), '$logstatus')";
                if($conn->query($sql)){
                    $output['message'] = 'Time in: '.$row['firstname'].' '.$row['lastname'];
                }
                else{
                    $output['error'] = true;
                    $output['message'] = $conn->error;
```

```
                }
            }
        }
        else{
            $sql = "SELECT *, attendance.id AS uid FROM attendance LEFT
JOIN    employees    ON    employees.id=attendance.employee_id    WHERE
attendance.employee_id = '$id' AND date = '$date_now'";
            $query = $conn->query($sql);
            if($query->num_rows < 1){
                $output['error'] = true;
                $output['message'] = 'Cannot Timeout. No time in.';
            }
            else{
                $row = $query->fetch_assoc();
                if($row['time_out'] != '00:00:00'){
                    $output['error'] = true;
                    $output['message'] = 'You have timed out for today';
                }
                else{
                    $sql = "UPDATE attendance SET time_out = NOW() WHERE
id = '".$row['uid']."'";
                    if($conn->query($sql)){
                                        $output['message']  =  'Time  out:
'.$row['firstname'].' '.$row['lastname'];

                            $eightAM = new DateTime(date('Y-m-d') . '
08:00:00');
                            $twelvePM = new DateTime(date('Y-m-d') . '
12:00:00');

                        $time_in = new DateTime($row['time_in']);
                        $time_out = new DateTime();

                        // Adjust time_in if it's earlier than 8:00 AM
                        if($time_in < $eightAM) {
                            $time_in = $eightAM;
                        }

                        // Adjust time_out if it's later than 12:00 PM
                        if($time_out > $twelvePM) {
                            $time_out = $twelvePM;
                        }

                        $interval = $time_in->diff($time_out);
                        $hrs = $interval->format('%h');
                        $mins = $interval->format('%i');
                        $mins = $mins/60;
                        $int = $hrs + $mins;
                        if($int > 4){
```

```
                            $int = $int - 1;
                        }

                          $sql = "UPDATE attendance SET num_hr = '$int'
WHERE id = '".$row['uid']."'";
                        $conn->query($sql);
                    }
                    else{
                        $output['error'] = true;
                        $output['message'] = $conn->error;
                    }
                }
            }
        }
    }
    else{
        $output['error'] = true;
        $output['message'] = 'Employee ID not found';
    }

    echo json_encode($output);
}
?>
```

ATTENDANCE_PM

```
<?php
if(isset($_POST['employee'])){
    $output = array('error'=>false);

    include 'conn.php';
    include 'timezone.php';

    $employee = $_POST['employee'];
    $status = $_POST['status'];

    $sql = "SELECT * FROM employees WHERE employee_id = '$employee'";
    $query = $conn->query($sql);
```

```
    if($query->num_rows > 0){
        $row = $query->fetch_assoc();
        $id = $row['id'];

        $date_now = date('Y-m-d');

        if($status == 'in_pm'){

            $sql = "SELECT * FROM attendance_pm WHERE employee_id = '$id'
AND date = '$date_now' AND time_in_pm IS NOT NULL";
            $query = $conn->query($sql);
            if($query->num_rows > 0){
                $output['error'] = true;
                $output['message'] = 'You have timed in for today';
            }
            else{
                //updates
                $sched = $row['schedule_id'];
                $lognow = date('H:i:s');
                $sql = "SELECT * FROM schedules WHERE id = '$sched'";
                $squery = $conn->query($sql);
                $srow = $squery->fetch_assoc();
                $logstatus = ($lognow > $srow['time_in_pm']) ? 0 : 1;
                //
                  $sql = "INSERT INTO attendance_pm (employee_id, date,
time_in_pm, status) VALUES ('$id', '$date_now', NOW(), '$logstatus')";
                if($conn->query($sql)){
                    $output['message'] = 'Time in: '.$row['firstname'].'
'.$row['lastname'];
                }
                else{
                    $output['error'] = true;
                    $output['message'] = $conn->error;
                }
            }
        }
        else{
            $sql = "SELECT *, attendance_pm.id AS uid FROM attendance_pm
LEFT JOIN employees ON employees.id=attendance_pm.employee_id WHERE
attendance_pm.employee_id = '$id' AND date = '$date_now'";
            $query = $conn->query($sql);
            if($query->num_rows < 1){
                $output['error'] = true;
                $output['message'] = 'Cannot Timeout. No time in.';
            }
            else{
                $row = $query->fetch_assoc();
                if($row['time_out_pm'] != '00:00:00'){
                    $output['error'] = true;
```

```
                    $output['message'] = 'You have timed out for today';
                }
                else{
                    $sql = "UPDATE attendance_pm SET time_out_pm = NOW()
WHERE id = '".$row['uid']."'";
                    if($conn->query($sql)){
                                    $output['message']  =  'Time  out:
'.$row['firstname'].' '.$row['lastname'];

                     $onePM = new DateTime(date('Y-m-d') . ' 13:00:00');
                     $fivePM = new DateTime(date('Y-m-d') . ' 17:00:00');

                        $time_in_pm = new DateTime($row['time_in_pm']);
                        $time_out_pm = new DateTime();

                        // Adjust time_in if it's earlier than 1:00 PM
                        if($time_in_pm < $onePM) {
                            $time_in_pm = $onePM;
                        }

                        // Adjust time_out if it's later than 5:00 PM
                        if($time_out_pm > $fivePM) {
                            $time_out_pm = $fivePM;
                        }

                        $interval = $time_in_pm->diff($time_out_pm);
                        $hrs = $interval->format('%h');
                        $mins = $interval->format('%i');
                        $mins = $mins/60;
                        $int = $hrs + $mins;
                        if($int > 4){
                            $int = $int - 1;
                        }

                           $sql = "UPDATE attendance_pm SET num_hr_pm =
'$int' WHERE id = '".$row['uid']."'";
                        $conn->query($sql);
                    }
                    else{
                        $output['error'] = true;
                        $output['message'] = $conn->error;
                    }
                }
            }
        }
    }
    else{
        $output['error'] = true;
        $output['message'] = 'Employee ID not found';
```

```
    }

    echo json_encode($output);
}
?>
```

INDEX_MORNING

```
<?php session_start(); ?>
<?php include 'header.php'; ?>
<body class="hold-transition login-page">

<div class="login-box">
    <div class="login-logo">

      <p id="date"></p>
      <p id="time" class="bold"></p>
        <div  style="background-color:  #F7F7F7;  padding:  10px;  border-
radius: 5px; box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);">
    <h2 style="color: #333; font-family: Arial, sans-serif; font-size:
24px;   margin-bottom:   10px;   text-align:   center;   text-transform:
uppercase;">Morning Attendance</h2>
</div>

    </div>

    <div class="login-box-body">
    <a href="MAIFSI.php" style="font-size: 50px; display: inline-block;
float: right;"><i class="fa fa-home"></i></a> <!-- Home icon linking to
MAIFSI.php -->

      <h4 class="login-box-msg">Enter Employee ID</h4>


      <form id="attendance">
          <div class="form-group">
            <select class="form-control" name="status">
              <option value="in">Time In</option>
              <option value="out">Time Out</option>


            </select>
          </div>
          <div class="form-group has-feedback">
           <input type="text" class="form-control input-lg" id="employee"
name="employee" required>
```

```
              <span class="glyphicon glyphicon-calendar form-control-
feedback"></span>
          </div>
          <div class="row">
          <div class="col-xs-4">
                <button type="submit" class="btn btn-primary btn-block
btn-flat" name="signin"><i class="fa fa-sign-in"></i>SUBMIT</button>
            </div>
          </div>
      </form>
    </div>
    <div class="alert alert-success alert-dismissible mt20 text-center"
style="display:none;">
        <button type="button" class="close" data-dismiss="alert" aria-
hidden="true">&times;</button>
         <span class="result"><i class="icon fa fa-check"></i> <span
class="message"></span></span>
    </div>
     <div class="alert alert-danger alert-dismissible mt20 text-center"
style="display:none;">
        <button type="button" class="close" data-dismiss="alert" aria-
hidden="true">&times;</button>
        <span class="result"><i class="icon fa fa-warning"></i> <span
class="message"></span></span>
    </div>

</div>

<?php include 'scripts.php' ?>

<script type="text/javascript">
$(function() {
  var interval = setInterval(function() {
    var momentNow = moment();
     $('#date').html(momentNow.format('dddd').substring(0,3).toUpperCase
() + ' - ' + momentNow.format('MMMM DD, YYYY'));
    $('#time').html(momentNow.format('hh:mm:ss A'));



    // Redirect to another form at 12:30 PM
    if (momentNow.format('HH:mm') === '12:32') {
      window.location.href = 'index_pm.php'; // Replace with the actual
URL of the other form
    }
  }, 100);

  $('#attendance').submit(function(e){
    e.preventDefault();
```

```
    var attendance = $(this).serialize();
    $.ajax({
      type: 'POST',
      url: 'attendance.php',
      data: attendance,
      dataType: 'json',
      success: function(response){
        if(response.error){
          $('.alert').hide();
          $('.alert-danger').show();
          $('.message').html(response.message);
        }
        else{
          $('.alert').hide();
          $('.alert-success').show();
          $('.message').html(response.message);
          $('#employee').val('');
        }
      }
    });
  });

});
</script>

</body>
</html>
```

INDEX_AFTERNOON

```
<?php session_start(); ?>
<?php include 'header.php'; ?>
<body class="hold-transition login-page">
<div class="login-box">
    <div class="login-logo">

      <p id="date"></p>
      <p id="time" class="bold"></p>
        <div style="background-color: #F7F7F7; padding: 10px; border-
radius: 5px; box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);">
```

```
    <h2 style="color: #333; font-family: Arial, sans-serif; font-size: 24px; margin-bottom: 10px; text-align: center; text-transform: uppercase;">Afternoon Attendance</h2>
</div>

    </div>

    <div class="login-box-body">
    <a href="MAIFSI.php" style="font-size: 50px; display: inline-block; float: right;"><i class="fa fa-home"></i></a> <!-- Home icon linking to MAIFSI.php -->

      <h4 class="login-box-msg">Enter Employee ID</h4>

      <form id="attendance">
          <div class="form-group">
            <select class="form-control" name="status">
              <option value="in_pm">Time In (PM)</option>
              <option value="out_pm">Time Out(PM)</option>
            </select>
          </div>
          <div class="form-group has-feedback">
           <input type="text" class="form-control input-lg" id="employee" name="employee" required>
               <span class="glyphicon glyphicon-calendar form-control-feedback"></span>
          </div>
          <div class="row">
          <div class="col-xs-4">
                <button type="submit" class="btn btn-primary btn-block btn-flat" name="signin"><i class="fa fa-sign-in"></i> SUBMIT</button>
            </div>
          </div>
      </form>
    </div>
    <div class="alert alert-success alert-dismissible mt20 text-center" style="display:none;">
       <button type="button" class="close" data-dismiss="alert" aria-hidden="true">&times;</button>
        <span class="result"><i class="icon fa fa-check"></i> <span class="message"></span></span>
    </div>
    <div class="alert alert-danger alert-dismissible mt20 text-center" style="display:none;">
       <button type="button" class="close" data-dismiss="alert" aria-hidden="true">&times;</button>
       <span class="result"><i class="icon fa fa-warning"></i> <span class="message"></span></span>
    </div>
```

```
</div>

<?php include 'scripts.php' ?>
<script type="text/javascript">
$(function() {
  var interval = setInterval(function() {
    var momentNow = moment();
     $('#date').html(momentNow.format('dddd').substring(0,3).toUpperCase
() + ' - ' + momentNow.format('MMMM DD, YYYY'));
    $('#time').html(momentNow.format('hh:mm:ss A'));



    // Redirect to another form at 12:30 PM
    if (momentNow.format('HH:mm') === '7:00') {
      window.location.href = 'index.php'; // Replace with the actual URL
of the other form
    }
  }, 100);

  $('#attendance').submit(function(e){
    e.preventDefault();
    var attendance = $(this).serialize();
    $.ajax({
      type: 'POST',
      url: 'attendance_pm.php',
      data: attendance,
      dataType: 'json',
      success: function(response){
        if(response.error){
          $('.alert').hide();
          $('.alert-danger').show();
          $('.message').html(response.message);
        }
        else{
          $('.alert').hide();
          $('.alert-success').show();
          $('.message').html(response.message);
          $('#employee').val('');
        }
      }
    });
  });

});
</script>

</body>
```

```
</html>
```

HEADER

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <title>Attendance and Payroll System</title>
    <!-- Tell the browser to be responsive to screen width -->
    <meta content="width=device-width, initial-scale=1, maximum-scale=1,
user-scalable=no" name="viewport">
    <!-- Bootstrap 3.3.7 -->
                                    <link                rel="stylesheet"
href="bower_components/bootstrap/dist/css/bootstrap.min.css">
    <!-- Font Awesome -->
    <link rel="stylesheet" href="bower_components/font-awesome/css/font-
awesome.min.css">
    <!-- Theme style -->
    <link rel="stylesheet" href="dist/css/AdminLTE.min.css">
    <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media
queries -->
    <!-- WARNING: Respond.js doesn't work if you view the page via file://
-->
    <!--[if lt IE 9]>
                                                                    <script
src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>
                                                                    <script
src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
    <![endif]-->

    <!-- Google Font -->
                                    <link                rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,6
00,700,300italic,400italic,600italic">

    <style type="text/css">
        .mt20{
            margin-top:20px;
        }
        .result{
            font-size:20px;
        }
      .bold{
        font-weight: bold;
```

```
      }
    </style>
</head>
```

ATTENDANCE_ADD

```
<?php
    include 'includes/session.php';

    if(isset($_POST['add'])){
        $employee = $_POST['employee'];
        $date = $_POST['date'];
        $time_in = $_POST['time_in'];
        $time_in= date('H:i:s', strtotime($time_in));
        $time_out = $_POST['time_out'];
        $time_out = date('H:i:s', strtotime($time_out));
        $remarks= $_POST['remarks'];

        $sql = "SELECT * FROM employees WHERE employee_id = '$employee'";
        $query = $conn->query($sql);

        if($query->num_rows < 1){
            $_SESSION['error'] = 'Employee not found';
        }
        else{
            $row = $query->fetch_assoc();
            $emp = $row['id'];

            $sql = "SELECT * FROM attendance WHERE employee_id = '$emp'
AND date = '$date'";
            $query = $conn->query($sql);

            if($query->num_rows > 0){
                 $_SESSION['error'] = 'Employee attendance for the day
exist';
            }
            else{
                //updates
                $sched = $row['schedule_id'];
                $sql = "SELECT * FROM schedules WHERE id = '$sched'";
                $squery = $conn->query($sql);
                $scherow = $squery->fetch_assoc();
                $logstatus = ($time_in > $scherow['time_in']) ? 0 : 1;
                //
```

```
                $sql = "INSERT INTO attendance(employee_id, date, time_in, time_out,   status,remarks)   VALUES   ('$emp',   '$date',   '$time_in', '$time_out', '$logstatus', '$remarks')";
                if($conn->query($sql)){
                  $_SESSION['success'] = 'Attendance added successfully';
                    $id = $conn->insert_id;

                     $sql = "SELECT * FROM employees LEFT JOIN schedules ON schedules.id=employees.schedule_id WHERE employees.id = '$emp'";
                    $query = $conn->query($sql);
                    $srow = $query->fetch_assoc();

                    if($srow['time_in'] > $time_in){
                        $time_in = $srow['time_in'];
                    }

                    if($srow['time_out'] < $time_out){
                        $time_out = $srow['time_out'];
                    }

                    $time_in = new DateTime($time_in);
                    $time_out = new DateTime($time_out);
                    $interval = $time_in->diff($time_out);
                    $hrs = $interval->format('%h');
                    $mins = $interval->format('%i');
                    $mins = $mins/60;
                    $int = $hrs + $mins;
                    if($int > 4){
                        $int = $int - 1;
                    }

                     $sql = "UPDATE attendance SET num_hr = '$int' WHERE id = '$id'";
                    $conn->query($sql);

                }
                else{
                    $_SESSION['error'] = $conn->error;
                }
            }
        }
    }
    else{
        $_SESSION['error'] = 'Fill up add form first';
    }

    header('location: attendance.php');

?>
```

ATTENDANCE_EDIT

```php
<?php
include 'includes/session.php';

if(isset($_POST['edit'])){
    $id = $_POST['id'];
    $date = $_POST['edit_date'];
    $time_in = $_POST['edit_time_in'];
    $time_in = date('H:i:s', strtotime($time_in));
    $time_out = $_POST['edit_time_out'];
    $time_out = date('H:i:s', strtotime($time_out));
    $remarks = $_POST['edit_remarks'];
    // Update attendance record
    $sql = "UPDATE attendance SET date = '$date', time_in = '$time_in', time_out = '$time_out', remarks = '$remarks'  WHERE id = '$id'";
    if($conn->query($sql)){
        $_SESSION['success'] = 'Attendance updated successfully';

        // Retrieve employee information
        $sql = "SELECT * FROM attendance WHERE id = '$id'";
        $query = $conn->query($sql);
        $row = $query->fetch_assoc();
        $emp = $row['employee_id'];

        // Retrieve schedule information
           $sql = "SELECT * FROM employees LEFT JOIN schedules ON schedules.id=employees.schedule_id WHERE employees.id = '$emp'";
        $query = $conn->query($sql);
        $srow = $query->fetch_assoc();

        // Calculate hours worked
        $logstatus = ($time_in > $srow['time_in']) ? 0 : 1;

        if($srow['time_in'] > $time_in){
            $time_in = $srow['time_in'];
        }

        if($srow['time_out'] < $time_out){
            $time_out = $srow['time_out'];
        }

        $time_in = new DateTime($time_in);
        $time_out = new DateTime($time_out);
        $interval = $time_in->diff($time_out);
        $hrs = $interval->format('%h');
```

```
        $mins = $interval->format('%i');
        $mins = $mins/60;
        $int = $hrs + $mins;
        if($int > 4){
            $int = $int - 1;
        }

        // Update num_hr and status
           $sql  =  "UPDATE  attendance  SET  num_hr  =  '$int',  status  =
'$logstatus' WHERE id = '$id'";
        if($conn->query($sql)) {
             $_SESSION['success'] .= ' Num_hr updated successfully'; //
Optionally notify about num_hr update
        } else {
           $_SESSION['error'] = 'Error updating num_hr: ' . $conn->error;
        }
    }
    else{
        $_SESSION['error'] = $conn->error;
    }
}
else{
    $_SESSION['error'] = 'Fill up edit form first';
}

header('location:attendance.php');
?>
```

ATTENDANCE_VISUAL

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue sidebar-mini">
<div class="wrapper">

  <?php include 'includes/navbar.php'; ?>
  <?php include 'includes/menubar.php'; ?>

  <!-- Content Wrapper. Contains page content -->
```

```
  <div class="content-wrapper">
    <!-- Content Header (Page header) -->
    <section class="content-header">
      <h1>
      MORNING  ATTENDANCE
      </h1>
      <ol class="breadcrumb">
        <li><a href="#"><i class="fa fa-dashboard"></i> Home</a></li>
        <li class="active">Attendance</li>
      </ol>
    </section>
    <!-- Main content -->

    <section class="content">

      <?php
        if(isset($_SESSION['error'])){
          echo "
            <div class='alert alert-danger alert-dismissible'>
                <button type='button' class='close' data-dismiss='alert'
aria-hidden='true'>&times;</button>
              <h4><i class='icon fa fa-warning'></i> Error!</h4>
              ".$_SESSION['error']."
            </div>
          ";
          unset($_SESSION['error']);
        }
        if(isset($_SESSION['success'])){
          echo "
            <div class='alert alert-success alert-dismissible'>
                <button type='button' class='close' data-dismiss='alert'
aria-hidden='true'>&times;</button>
              <h4><i class='icon fa fa-check'></i> Success!</h4>
              ".$_SESSION['success']."
            </div>
          ";
          unset($_SESSION['success']);
        }
      ?>
      <div class="row">
        <div class="col-xs-12">
          <div class="box">
            <div class="box-header with-border">
             <a href="#addnew" data-toggle="modal" class="btn btn-primary
btn-sm btn-flat"><i class="fa fa-plus"></i> New</a>
                <button class="btn btn-success btn-sm btn-flat export-
btn"><i class="fa fa-file-excel-o"></i> Export to Excel</button>
            </div>
```

```
            <div class="box-body">

              <table id="example1" class="table table-bordered">
                <thead>
                  <th class="hidden"></th>
                  <th>Date</th>
                  <th>Employee ID</th>
                  <th>Name</th>
                  <th>Time In</th>
                  <th>Time Out</th>
                  <th>No. of hours</th>
                  <th>Remarks</th>
                  <th>Tools</th>
                </thead>
                <tbody>
                  <?php
                      $sql = "SELECT *, employees.employee_id AS empid, attendance.id AS attid FROM attendance LEFT JOIN employees ON employees.id=attendance.employee_id ORDER BY attendance.date DESC, attendance.time_in DESC";
                    $query = $conn->query($sql);

                    while ($row = $query->fetch_assoc()) {
                      $status = ($row['status']) ? '<span class="label label-warning pull-right">ontime</span>' : '<span class="label label-danger pull-right">late</span>';

                      $timeIn = strtotime($row['time_in']);
                      $timeOut = strtotime($row['time_out']);

                       // Set the start and end timestamps for 8:00 AM and 12:00 PM on the respective days
                      $startTimestamp = strtotime(date('Y-m-d') . ' 8:00:00'); // 1:00PM
                       $endTimestamp = strtotime(date('Y-m-d') . ' 12:00:00'); // 5:00 PM

                     // Check if time in and time out are within the specified range
                      if ($timeIn < $startTimestamp) {
                            $timeIn = $startTimestamp; // Consider 13:00 PM as the start time
                      }

                      if ($timeOut > $endTimestamp) {
                        $timeOut = $endTimestamp; // Consider 17:00 PM as the end time
```

```
                        }

                          // Calculate the hours within the specified
range
                        $hours = round(($timeOut - $timeIn) / 3600, 2);

                        // Now you have $hours as the duration between
8:00 AM and 12:00 PM
                          // You can use this value as needed in your
code


                    echo "
                        <tr>
                            <td class='hidden'></td>
                                                <td>".date('M  d,  Y',
strtotime($row['date']))."</td>
                            <td>".$row['empid']."</td>
                                                <td>".$row['firstname'].'
'.$row['lastname']."</td>
                                                    <td>".date('h:i  A',
strtotime($row['time_in']))."</td>
                                                    <td>".date('h:i  A',
strtotime($row['time_out']))."</td>
                            <td>".$hours."</td>
                            <td>".$row['remarks']."</td>
                            <td>

                              <button class='btn btn-success btn-sm btn-
flat  edit'  data-id='".$row['attid']."'><i  class='fa  fa-edit'></i>
Edit</button>

                            </td>

                        </tr>
                                </td>
                        </tr>
                      ";
                    }
                  ?>
                </tbody>
              </table>
            </div>
          </div>
        </div>
      </div>
    </section>
  </div>
```

```
  <?php include 'includes/footer.php'; ?>
  <?php include 'includes/attendance_modal.php'; ?>
</div>
<?php include 'includes/scripts.php'; ?>
<script>
$(function(){
  $('.edit').click(function(e){
    e.preventDefault();
    $('#edit').modal('show');
    var id = $(this).data('id');
    getRow(id);
  });

  $('.delete').click(function(e){
    e.preventDefault();
    $('#delete').modal('show');
    var id = $(this).data('id');
    getRow(id);
  });

  $('.export-btn').click(function() {
    exportToExcel();
  });
});

function exportToExcel() {
  let table = $('#example1');
  let html = table.clone().wrap('<div>').parent().html();

  const uri = 'data:application/vnd.ms-excel;base64,';

  let link = document.createElement("a");
  link.href = uri + btoa(html);
  link.download = "morning_attendance_list.xls";
  document.body.appendChild(link);
  link.click();
  document.body.removeChild(link);
}

function getRow(id){
  $.ajax({
    type: 'POST',
    url: 'attendance_row.php',
    data: {id:id},
    dataType: 'json',
    success: function(response){
      $('#datepicker_edit').val(response.date);
      $('#attendance_date').html(response.date);
      $('#edit_time_in').val(response.time_in);
```

```
      $('#edit_time_out').val(response.time_out);

      $('#edit_remarks').val(response.remarks);
      $('#attid').val(response.attid);
                          $('#employee_name').html(response.firstname+'
'+response.lastname);
      $('#del_attid').val(response.attid);
                       $('#del_employee_name').html(response.firstname+'
'+response.lastname);
    }
  });
}

</script>
</body>
</html>
```

ATTENDANCE_MODAL

```
<!-- Add -->
<div class="modal fade" id="addnew">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
                <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                    <span aria-hidden="true">&times;</span></button>
                <h4 class="modal-title"><b>Add Attendance</b></h4>
            </div>
            <div class="modal-body">
                            <form  class="form-horizontal"  method="POST"
action="attendance_add.php">
                  <div class="form-group">
                        <label  for="employee"  class="col-sm-3  control-
label">Employee ID</label>

                    <div class="col-sm-9">
                                <input  type="text"  class="form-control"
id="employee" name="employee" required>
                    </div>
                </div>
                <div class="form-group">
                    <label for="datepicker_add" class="col-sm-3 control-
label">Date</label>
```

```
                    <div class="col-sm-9">
                      <div class="date">
                                <input type="text" class="form-control"
id="datepicker_add" name="date" required>
                      </div>
                    </div>
                </div>
                <div class="form-group">
                        <label for="time_in" class="col-sm-3 control-
label">Time In</label>

                    <div class="col-sm-9">
                        <div class="bootstrap-timepicker">
                                <input type="text" class="form-control
timepicker" id="time_in" name="time_in">
                        </div>
                    </div>
                </div>
                <div class="form-group">
                        <label for="time_out" class="col-sm-3 control-
label">Time Out</label>

                    <div class="col-sm-9">
                        <div class="bootstrap-timepicker">
                                <input type="text" class="form-control
timepicker" id="time_out" name="time_out">
                        </div>
                    </div>
                </div>
                <div class="form-group">
                        <label for="remarks" class="col-sm-3 control-
label">REMARKS</label>

                    <div class="col-sm-9">

                        <textarea class="form-control" id="remarks"
name="remarks"></textarea>

                    </div>

                </div>
            </div>
            <div class="modal-footer">
                  <button type="button" class="btn btn-default btn-flat
pull-left"     data-dismiss="modal"><i     class="fa     fa-close"></i>
Close</button>
                 <button type="submit" class="btn btn-primary btn-flat"
name="add"><i class="fa fa-save"></i> Save</button>
                </form>
```

```
            </div>
        </div>
    </div>
</div>

<!-- Edit -->
<div class="modal fade" id="edit">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
                <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                    <span aria-hidden="true">&times;</span></button>
                                        <h4    class="modal-title"><b><span
id="employee_name"></span></b></h4>
            </div>
            <div class="modal-body">
                        <form   class="form-horizontal"   method="POST"
action="attendance_edit.php">
                    <input type="hidden" id="attid" name="id">
                <div class="form-group">
                   <label for="datepicker_edit" class="col-sm-3 control-
label">Date</label>

                    <div class="col-sm-9">
                      <div class="date">
                                <input  type="text"  class="form-control"
id="datepicker_edit" name="edit_date">
                      </div>
                    </div>
                </div>
                <div class="form-group">
                     <label for="edit_time_in" class="col-sm-3 control-
label">Time In</label>

                    <div class="col-sm-9">
                        <div class="bootstrap-timepicker">
                                <input type="text" class="form-control
timepicker" id="edit_time_in" name="edit_time_in">
                        </div>
                    </div>
                </div>
                <div class="form-group">
                     <label for="edit_time_out" class="col-sm-3 control-
label">Time Out</label>

                    <div class="col-sm-9">
                        <div class="bootstrap-timepicker">
```

```
                                <input type="text" class="form-control
timepicker" id="edit_time_out" name="edit_time_out">
                        </div>
                    </div>
                </div>
                <div class="form-group">
    <label for="remarks" class="col-sm-3 control-label">REMARKS</label>
    <div class="col-sm-9">
                      <textarea    class="form-control"    id="remarks"
name="edit_remarks"></textarea>
    </div>
</div>

            <div class="modal-footer">
                  <button type="button" class="btn btn-default btn-flat
pull-left"     data-dismiss="modal"><i     class="fa     fa-close"></i>
Close</button>
                  <button type="submit" class="btn btn-success btn-flat"
name="edit"><i class="fa fa-check-square-o"></i> Update</button>
                </form>
            </div>
        </div>
    </div>
</div>

<!-- Delete -->
<div class="modal fade" id="delete">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
                <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                    <span aria-hidden="true">&times;</span></button>
                                    <h4    class="modal-title"><b><span
id="attendance_date"></span></b></h4>
            </div>
            <div class="modal-body">
                        <form   class="form-horizontal"   method="POST"
action="attendance_delete.php">
                    <input type="hidden" id="del_attid" name="id">
                    <div class="text-center">
                        <p>DELETE ATTENDANCE</p>
                        <h2 id="del_employee_name" class="bold"></h2>
                    </div>
            </div>
            <div class="modal-footer">
                  <button type="button" class="btn btn-default btn-flat
pull-left"     data-dismiss="modal"><i     class="fa     fa-close"></i>
Close</button>
```

```
                    <button type="submit" class="btn btn-danger btn-flat"
name="delete"><i class="fa fa-trash"></i> Delete</button>
                </form>
            </div>
        </div>
    </div>
</div>
```

MENUBAR

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Sidebar with Dropdowns</title>
  <!-- Add your CSS styles here or include an external stylesheet -->
  <style>
    /* Sidebar styles */
    .main-sidebar {
      background-color: #222d32;
      color: #ffffff;
    }

    .main-sidebar .user-panel {
      padding: 20px;
    }

    .main-sidebar .user-panel p {
      margin-bottom: 0;
    }

    .main-sidebar .user-panel a {
      color: #ffffff;
    }

    .main-sidebar .sidebar-menu .header {
      color: #ffffff;
      background-color: #33383b;
      padding: 10px;
    }

    .main-sidebar .sidebar-menu li a {
      color: #ffffff;
```

```
    }

    .main-sidebar .sidebar-menu li a:hover,
    .main-sidebar .sidebar-menu li.active a {
      background-color: #1e282c;
    }

    /* Dropdown styles */
    .main-sidebar .treeview-menu {
      display: none;
    }

    .main-sidebar .treeview.active .treeview-menu {
      display: block;
    }

    .main-sidebar .treeview-menu li a {
      padding-left: 20px;
    }

    .main-sidebar .treeview-menu li.active a {
      background-color: #1e282c;
    }
  </style>
</head>
<body>
  <aside class="main-sidebar">
    <!-- ... (existing code) ... -->

    <!-- sidebar menu: : style can be found in sidebar.less -->
    <ul class="sidebar-menu" data-widget="tree">
      <li class="header">REPORTS</li>
      <li class="reports-button"><a href="home.php"><i class="fa fa-bar-
chart"></i> <span>REPORTS</span></a></li>
      <!-- ... (existing code) ... -->
      <li class="header">EMPLOYEES</li>
<li><a   href="employee.php"><i   class="fa   fa-users"></i>   EMPLOYEE
LIST</a></li>
<li><a     href="position.php"><i     class="fa     fa-briefcase"></i>
POSITIONS</a></li>
<li class="treeview">
  <a href="#">
    <i class="fa fa-calendar-check-o"></i> ATTENDANCE
    <span class="pull-right-container">
      <i class="fa fa-angle-left pull-right"></i>
    </span>
  </a>
  <ul class="treeview-menu">
```

```
     <li><a  href="attendance.php"><i  class="fa  fa-sun-o"></i>  MORNING
ATTENDANCE</a></li>
       <li><a   href="attendance_pm.php"><i   class="fa   fa-moon-o"></i>
AFTERNOON ATTENDANCE</a></li>
  </ul>
</li>




      <li class="header">DEDUCTIONS</li>

     <li><a href="tax.php"><i class="fa fa-file-text-o"></i> WITHHOLDING
TAX</a></li>

      <li class="treeview">
  <a href="#">
    <i class="fa fa-life-ring"></i> SSS
    <span class="pull-right-container">
      <i class="fa fa-angle-left pull-right"></i>
    </span>
  </a>
  <ul class="treeview-menu">
    <li><a href="se.php"><i class="fa fa-circle-o"></i> SSS_EE</a></li>
    <li><a href="sr.php"><i class="fa fa-circle-o"></i> SSS_ER</a></li>
  </ul>
</li>

<li class="treeview">
  <a href="#">
    <i class="fa fa-hospital-o"></i> PhilHealth
    <span class="pull-right-container">
      <i class="fa fa-angle-left pull-right"></i>
    </span>
  </a>
  <ul class="treeview-menu">
            <li><a     href="he.php"><i     class="fa     fa-user"></i>
PHILHEALTH_EE</a></li>
          <li><a    href="hr.php"><i    class="fa    fa-building"></i>
PHILHEALTH_ER</a></li>
  </ul>
</li>

<li class="treeview">
  <a href="#">
    <i class="fa fa-home"></i> HDMF
    <span class="pull-right-container">
      <i class="fa fa-angle-left pull-right"></i>
    </span>
```

```
  </a>
  <ul class="treeview-menu">
    <li><a href="fe.php"><i class="fa fa-user"></i> HDMF_EE</a></li>
    <li><a href="fr.php"><i class="fa fa-building"></i> HDMF_ER</a></li>
  </ul>
</li>

          <li class="header">OTHERS</li>
            <li><a  href="goods.php"><i  class="fa  fa-shopping-cart"></i>
GOODS</a></li>
          <li><a href="cashadvance.php"><i class="fa fa-money"></i> CASH
ADVANCE</a></li>



    <!-- HOLIDAY button with a different icon -->
<li   class="holiday-button"><a   href="holiday.php"><i   class="fa   fa-
calendar"></i> <span>HOLIDAY</span></a></li>

<!-- PRINTABLES header -->
<li class="header">PRINTABLES</li>

<!-- Payroll button -->
<li   class="payroll-button"><a   href="pay.php"><i   class="fa   fa-files-
o"></i> <span>Payroll</span></a></li>

<li   class="dtr-button"><a   href="fetch_records.php"><i   class="fa   fa-
calendar"></i> <span>DTR</span></a></li>

<li  class="payroll-button"><a  href="total_employees.php"><i  class="fa
fa-files-o"></i> <span>Annual Payroll</span></a></li>


<li class="header">HISTORY</li>
<li    class="payroll-button"><a    href="logs.php"><i    class="fas    fa-
history"></i> <span>LOGIN</span></a></li>


      </ul>
      </li>
      </ul>
    </section>

  </aside>
</body>
</html>
```

EMPLOYEE_MODAL

```
<!-- Add -->
<div class="modal fade" id="addnew">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
                <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                    <span aria-hidden="true">&times;</span></button>
              <h4 class="modal-title"><b>Add Employee</b></h4>
            </div>
            <div class="modal-body">


                          <form   class="form-horizontal"   method="POST"
action="employee_add.php" enctype="multipart/form-data">

              <div class="form-group">
                      <label for="employee_id" class="col-sm-3 control-
label">Employee Id</label>

                    <div class="col-sm-9">
                              <input  type="text"  class="form-control"
id="employee_id" name="employee_id" required>
                    </div>
                </div>

                <div class="form-group">
                          <label  for="status"  class="col-sm-3  control-
label">STATUS</label>

                    <div class="col-sm-9">
                             <select  class="form-control"  name="status"
id="status" required>
                          <option value="" selected>- Select -</option>
                          <option value="active">ACTIVE</option>
                          <option value="inactive">INACTIVE</option>
                        </select>
                    </div>
                </div>
                <div class="form-group">
                        <label  for="firstname"  class="col-sm-3 control-
label">Firstname</label>

                    <div class="col-sm-9">
                              <input  type="text"  class="form-control"
id="firstname" name="firstname" required>
```

```
                    </div>
                </div>
                <div class="form-group">
                        <label for="lastname" class="col-sm-3 control-
label">Lastname</label>

                    <div class="col-sm-9">
                    <input type="text" class="form-control" id="lastname"
name="lastname" required>
                    </div>
                </div>
                <div class="form-group">
    <label for="address" class="col-sm-3 control-label">Address</label>
    <div class="col-sm-9">
            <textarea class="form-control" name="address" id="address"
placeholder="Enter address (e.g., brgy, Municipality/city,
province)"></textarea>
    </div>
</div>

                <div class="form-group">
                    <label for="datepicker_add" class="col-sm-3 control-
label">Birthdate</label>

                    <div class="col-sm-9">
                      <div class="date">
                                <input type="text" class="form-control"
id="datepicker_add" name="birthdate">
                      </div>
                    </div>
                </div>
                <div class="form-group">
    <label for="bp" class="col-sm-3 control-label">BIRTHPLACE</label>
    <div class="col-sm-9">
            <input type="text" class="form-control" id="bp" name="bp"
placeholder="Enter birthplace (e.g., brgy, Municipality/city, province)">
    </div>
</div>

                <div class="form-group">
                     <label for="contact_info" class="col-sm-3 control-
label">Contact Info</label>

                    <div class="col-sm-9">
                              <input type="text" class="form-control"
id="contact_info" name="contact_info">
                    </div>
                </div>
                <div class="form-group">
```

```
                        <label for="gender" class="col-sm-3 control-
label">Gender</label>

                    <div class="col-sm-9">
                            <select class="form-control" name="gender"
id="gender" required>
                        <option value="" selected>- Select -</option>
                        <option value="Male">Male</option>
                        <option value="Female">Female</option>
                      </select>
                    </div>
                </div>

                <div class="form-group">
       <label   for="educ"   class="col-sm-3   control-label">EDUCATIONAL
ATTAINMENT</label>
    <div class="col-sm-9">
        <select class="form-control" id="educ" name="educ">
            <?php
                // Array of educational attainments
                $educational_attainments = array(
                    "No Formal Education",
                    "Elementary",
                    "High School",
                    "Vocational",
                    "Associate Degree",
                    "Bachelor's Degree",
                    "Master's Degree",
                    "Doctorate"
                );

                // Loop through the array to generate options
                foreach ($educational_attainments as $education) {
                    // Convert each education option to uppercase
                    $education_uppercase = strtoupper($education);
                                                        echo    "<option
value='$education_uppercase'>$education_uppercase</option>";
                }
            ?>
        </select>
    </div>
</div>
<div class="form-group">
       <label   for="marital"   class="col-sm-3   control-label">Marital
Status</label>
    <div class="col-sm-9">
        <select class="form-control" id="marital" name="marital">
            <option value="" selected>- Select -</option>
            <option value="SINGLE">Single</option>
```

```
            <option value="MARRIED">Married</option>
            <option value="DIVORCED">Divorced</option>
            <option value="WIDOWED">Widowed</option>
        </select>
    </div>
</div>

                <div class="form-group">
                        <label for="emergency" class="col-sm-3 control-
label">Emergency Contact</label>

                    <div class="col-sm-9">
                              <input type="text" class="form-control"
id="emergency" name="emergency">
                    </div>
                </div>
                <div class="form-group">
                     <label for="sss" class="col-sm-3 control-label">SSS
number</label>

                    <div class="col-sm-9">
                       <input type="text" class="form-control" id="sss"
name="sss">
                    </div>
                </div>
                <div class="form-group">
                          <label for="health" class="col-sm-3 control-
label">PhilHealth</label>

                    <div class="col-sm-9">
                     <input type="text" class="form-control" id="health"
name="health">
                    </div>
                </div>

                <div class="form-group">
                            <label for="tin" class="col-sm-3 control-
label">TIN</label>

                    <div class="col-sm-9">
                       <input type="text" class="form-control" id="tin"
name="tin">
                    </div>
                </div>
                <div class="form-group">
                          <label for="email" class="col-sm-3 control-
label">Email</label>

                    <div class="col-sm-9">
```

```
                    <input type="text" class="form-control" id="email"
name="email">
                </div>
            </div>

            <div class="form-group">
                    <label for="position" class="col-sm-3 control-
label">Position</label>

                <div class="col-sm-9">
                      <select class="form-control" name="position"
id="position" required>
                    <option value="" selected>- Select -</option>
                    <?php
                      $sql = "SELECT * FROM position";
                      $query = $conn->query($sql);
                      while($prow = $query->fetch_assoc()){
                        echo "
                                                                <option
value='".$prow['id']."'>".$prow['description']."</option>
                        ";
                      }
                    ?>
                  </select>
                </div>
            </div>
            <div class="form-group">
                    <label for="schedule" class="col-sm-3 control-
label">Schedule</label>

                <div class="col-sm-9">
                       <select class="form-control" id="schedule"
name="schedule" required>
                    <option value="" selected>- Select -</option>
                    <?php
                      $sql = "SELECT * FROM schedules";
                      $query = $conn->query($sql);
                      while($srow = $query->fetch_assoc()){
                        echo "
                                                                <option
value='".$srow['id']."'>".$srow['time_in'].'                          -
'.$srow['time_out'].$srow['time_in_pm'].'                          -
'.$srow['time_out_pm']."</option>
                        ";
                      }
                    ?>
                  </select>
                </div>
            </div>
```

```
                <div class="form-group">
                            <label  for="photo"  class="col-sm-3  control-
label">Photo</label>

                    <div class="col-sm-9">
                      <input type="file" name="photo" id="photo">
                    </div>
                </div>
            </div>
            <div class="modal-footer">
              <button type="button" class="btn btn-default btn-flat pull-
left" data-dismiss="modal"><i class="fa fa-close"></i> Close</button>
                <button  type="submit"  class="btn  btn-primary  btn-flat"
name="add"><i class="fa fa-save"></i> Save</button>
              </form>
            </div>
        </div>
    </div>
</div>

<!-- Edit -->
<div class="modal fade" id="edit">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
               <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                  <span aria-hidden="true">&times;</span></button>
                                    <h4    class="modal-title"><b><span
class="employee_id"></span></b></h4>
            </div>
            <div class="modal-body">
                        <form   class="form-horizontal"   method="POST"
action="employee_edit.php">
                <input type="hidden" class="empid" name="id">
                <div class="form-group">
                            <label  for="status"  class="col-sm-3  control-
label">STATUS</label>

                    <div class="col-sm-9">
                            <select  class="form-control"  name="status"
id="edit_status" required>
                        <option value="" selected>- Select -</option>
                        <option value="active">ACTIVE</option>
                        <option value="inactive">INACTIVE</option>
                      </select>
                    </div>
                </div>
                <div class="form-group">
```

```
                        <label for="firstname" class="col-sm-3 control-
label">Firstname</label>

                    <div class="col-sm-9">
                                <input type="text" class="form-control"
id="edit_firstname" name="firstname" >
                    </div>
                </div>
                <div class="form-group">
                        <label for="lastname" class="col-sm-3 control-
label">Lastname</label>

                    <div class="col-sm-9">
                                <input type="text" class="form-control"
id="edit_lastname" name="lastname">
                    </div>
                </div>
                <div class="form-group">
           <label    for="edit_address"    class="col-sm-3    control-
label">Address</label>
    <div class="col-sm-9">
        <textarea class="form-control" name="address" id="edit_address"
placeholder="Enter    address    (e.g.,    brgy,    Municipality/city,
province)"></textarea>
    </div>
</div>

                <div class="form-group">
                    <label for="datepicker_add" class="col-sm-3 control-
label">Birthdate</label>

                    <div class="col-sm-9">
                      <div class="date">
                                <input type="text" class="form-control"
id="datepicker_edit" name="birthdate">
                      </div>
                    </div>
                </div>
                <div class="form-group">
             <label     for="edit_bp"     class="col-sm-3     control-
label">BIRTHPLACE</label>
    <div class="col-sm-9">
        <input type="text" class="form-control" id="edit_bp" name="bp"
placeholder="Enter birthplace (e.g., brgy, Municipality/city, province)">
    </div>
</div>

                <div class="form-group">
```

```
                    <label for="contact_info" class="col-sm-3 control-
label">Contact Info</label>

                    <div class="col-sm-9">
                                <input type="text" class="form-control"
id="edit_contact_info" name="contact_info">
                    </div>
                </div>
                <div class="form-group">
                        <label for="gender" class="col-sm-3 control-
label">Gender</label>

                    <div class="col-sm-9">
                            <select class="form-control" name="gender"
id="edit_gender">
                        <option value="" selected>- Select -</option>
                        <option value="Male">Male</option>
                        <option value="Female">Female</option>
                      </select>
                    </div>
                </div>

                <div class="form-group">
       <label for="educ" class="col-sm-3 control-label">EDUCATIONAL
ATTAINMENT</label>
    <div class="col-sm-9">
        <select class="form-control" id="edit_educ" name="educ">
        <?php
                // Array of educational attainments
                $educational_attainments = array(
                    "No Formal Education",
                    "Elementary",
                    "High School",
                    "Vocational",
                    "Associate Degree",
                    "Bachelor's Degree",
                    "Master's Degree",
                    "Doctorate"
                );

                // Loop through the array to generate options
                foreach ($educational_attainments as $education) {
                    // Convert each education option to uppercase
                    $education_uppercase = strtoupper($education);
                                                    echo    "<option
value='$education_uppercase'>$education_uppercase</option>";
                }
            ?>
        </select>
```

```
    </div>
</div>

<div class="form-group">
       <label   for="marital"   class="col-sm-3   control-label">Marital
Status</label>
    <div class="col-sm-9">
        <select class="form-control" id="edit_marital" name="marital">
            <option value="" selected>- Select -</option>
            <option value="SINGLE">Single</option>
            <option value="MARRIED">Married</option>
            <option value="DIVORCED">Divorced</option>
            <option value="WIDOWED">Widowed</option>
        </select>
    </div>
</div>

                <div class="form-group">
                        <label  for="emergency"  class="col-sm-3  control-
label">Emergency Contact</label>

                    <div class="col-sm-9">
                              <input  type="text"  class="form-control"
id="edit_emergency" name="emergency">
                    </div>
                </div>
                <div class="form-group">
                     <label for="sss" class="col-sm-3 control-label">SSS
number</label>

                    <div class="col-sm-9">
                    <input type="text" class="form-control" id="edit_sss"
name="sss">
                    </div>
                </div>
                <div class="form-group">
                          <label  for="health"  class="col-sm-3  control-
label">PhilHealth</label>

                    <div class="col-sm-9">
                              <input  type="text"  class="form-control"
id="edit_health" name="health">
                    </div>
                </div>

                <div class="form-group">
                            <label  for="tin"  class="col-sm-3  control-
label">TIN</label>
```

```
                    <div class="col-sm-9">
                    <input type="text" class="form-control" id="edit_tin"
name="tin">
                    </div>
                </div>
                <div class="form-group">
                          <label  for="email"  class="col-sm-3  control-
label">Email</label>

                    <div class="col-sm-9">
                              <input  type="text"  class="form-control"
id="edit_email" name="email">
                    </div>
                </div>
                <div class="form-group">
                     <label for="edit_position" class="col-sm-3 control-
label">Position</label>

                    <div class="col-sm-9">
                           <select  class="form-control"  name="position"
id="edit_position">
                        <option selected id="position_val"></option>
                        <?php
                          $sql = "SELECT * FROM position";
                          $query = $conn->query($sql);
                          while($prow = $query->fetch_assoc()){
                            echo "
                                                                <option
value='".$prow['id']."'>".$prow['description']."</option>
                            ";
                          }
                        ?>
                      </select>
                    </div>
                </div>
                <div class="form-group">
                     <label for="edit_schedule" class="col-sm-3 control-
label">Schedule</label>

                    <div class="col-sm-9">
                        <select class="form-control" id="edit_schedule"
name="schedule">
                        <option selected id="schedule_val"></option>
                        <?php
                          $sql = "SELECT * FROM schedules";
                          $query = $conn->query($sql);
                          while($srow = $query->fetch_assoc()){
                            echo "
```

```
                                                                    <option
value='".$srow['id']."'>".$srow['time_in'].'                                -
'.$srow['time_out'].$srow['time_in_pm'].'                                   -
'.$srow['time_out_pm']."</option>
                                ";
                            }
                        ?>
                    </select>
                </div>
            </div>
        </div>
        <div class="modal-footer">
          <button type="button" class="btn btn-default btn-flat pull-
left" data-dismiss="modal"><i class="fa fa-close"></i> Close</button>
            <button type="submit" class="btn btn-success btn-flat"
name="edit"><i class="fa fa-check-square-o"></i> Update</button>
          </form>
        </div>
      </div>
    </div>
</div>


<!-- Update Photo -->
<div class="modal fade" id="edit_photo">
    <div class="modal-dialog">
        <div class="modal-content">
            <div class="modal-header">
              <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
                <span aria-hidden="true">&times;</span></button>
                                    <h4    class="modal-title"><b><span
class="del_employee_name"></span></b></h4>
            </div>
            <div class="modal-body">
                        <form   class="form-horizontal"   method="POST"
action="employee_edit_photo.php" enctype="multipart/form-data">
                <input type="hidden" class="empid" name="id">
                <div class="form-group">
                          <label  for="photo"  class="col-sm-3  control-
label">Photo</label>

                    <div class="col-sm-9">
                     <input type="file" id="photo" name="photo" required>
                    </div>
                </div>
            </div>
            <div class="modal-footer">
```

```
            <button type="button" class="btn btn-default btn-flat pull-
left" data-dismiss="modal"><i class="fa fa-close"></i> Close</button>
                <button type="submit" class="btn btn-success btn-flat"
name="upload"><i class="fa fa-check-square-o"></i> Update</button>
            </form>
          </div>
        </div>
    </div>
</div>
```

EMPLOYEE_VISUAL

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue sidebar-mini">
<div class="wrapper">

  <?php include 'includes/navbar.php'; ?>
  <?php include 'includes/menubar.php'; ?>

  <!-- Content Wrapper. Contains page content -->
  <div class="content-wrapper">
    <!-- Content Header (Page header) -->
    <section class="content-header">
      <h1>
        Employee List
      </h1>
      <ol class="breadcrumb">
        <li><a href="#"><i class="fa fa-dashboard"></i> Home</a></li>
        <li>Employees</li>
        <li class="active">Employee List</li>
      </ol>
    </section>
    <!-- Main content -->
    <section class="content">
      <?php
        if(isset($_SESSION['error'])){
          echo "
            <div class='alert alert-danger alert-dismissible'>
                <button type='button' class='close' data-dismiss='alert'
aria-hidden='true'>&times;</button>
              <h4><i class='icon fa fa-warning'></i> Error!</h4>
              ".$_SESSION['error']."
            </div>
          ";
          unset($_SESSION['error']);
        }
        if(isset($_SESSION['success'])){
          echo "
```

```
            <div class='alert alert-success alert-dismissible'>
                <button type='button' class='close' data-dismiss='alert'
aria-hidden='true'>&times;</button>
              <h4><i class='icon fa fa-check'></i> Success!</h4>
              ".$_SESSION['success']."
            </div>
          ";
          unset($_SESSION['success']);
        }
      ?>
      <div class="row">
        <div class="col-xs-12">
          <div class="box">
            <div class="box-header with-border">
                 <a  href="#addnew"  data-toggle="modal"  class="btn  btn-
primary btn-sm btn-flat"><i class="fa fa-plus"></i> New</a>
                <button class="btn btn-success btn-sm btn-flat export-
btn"><i class="fa fa-file-excel-o"></i> Export to Excel</button>
            </div>
            <div class="box-body">
              <table id="example1" class="table table-bordered">
                <thead>
                  <th>Employee ID</th>
                  <th>Photo</th>
                  <th>Name</th>
                  <th>Position</th>
                  <th>Schedule</th>
                  <th>Member Since</th>
                  <th>Status</th>
                </thead>
                <tbody>
                  <?php
                   $sql = "SELECT *, employees.id AS empid FROM employees
LEFT JOIN position ON position.id=employees.position LEFT JOIN schedules
ON schedules.id=employees.schedule_id";
                    $query = $conn->query($sql);
                    while($row = $query->fetch_assoc()){
                      ?>
                        <tr>
                          <td><?php echo $row['employee_id']; ?></td>
                         <td><img src="<?php echo (!empty($row['photo']))?
'../images/'.$row['photo']:'../images/profile.jpg';   ?>"   width="30px"
height="30px">  <a  href="#edit_photo"  data-toggle="modal"  class="pull-
right photo" data-id="<?php echo $row['empid']; ?>"><span class="fa fa-
edit"></span></a></td>
                          <td>
                           <a href="view_personal_info.php?id=<?php echo
urlencode($row['empid']); ?>">
```

```
                            <?php echo htmlspecialchars($row['firstname']
. ' ' . $row['lastname']); ?>
                             </a>
                          <a href="#edit" data-toggle="modal" class="pull-
right photo" data-id="<?php echo $row['empid']; ?>">
                              <span class="fa fa-edit"></span>
                            </a>
                          </td>
                          <td><?php echo $row['description']; ?></td>
                                              <td><?php  echo  date('h:i  A',
strtotime($row['time_in'])).'          -          '.date('h:i          A',
strtotime($row['time_out'])).'       /       '.       date('h:i       A',
strtotime($row['time_in_pm'])).'        -         '.date('h:i        A',
strtotime($row['time_out_pm'])); ?></td>
                                            <td><?php  echo  date('M  d,  Y',
strtotime($row['created_on'])) ?></td>
                          <td><?php echo $row['status']; ?></td>
                        </tr>
                      <?php
                    }
                  ?>
                </tbody>
              </table>
            </div>
          </div>
        </div>
      </div>
    </section>
  </div>

  <?php include 'includes/footer.php'; ?>
  <?php include 'includes/employee_modal.php'; ?>
</div>
<?php include 'includes/scripts.php'; ?>
<script>
$(function(){
  $('.edit').click(function(e){
    e.preventDefault();
    $('#edit').modal('show');
    var id = $(this).data('id');
    getRow(id);
  });

  $('.delete').click(function(e){
    e.preventDefault();
    $('#delete').modal('show');
    var id = $(this).data('id');
    getRow(id);
  });
```

```
  $('.photo').click(function(e){
    e.preventDefault();
    var id = $(this).data('id');
    getRow(id);
  });

  $('.export-btn').click(function() {
    exportToExcel();
  });

});

function exportToExcel() {
  let table = $('#example1');
  let html = table.clone().wrap('<div>').parent().html();

  // Add total count row to the HTML content
  let inactiveEmployeeCount = $('.box-header h1').text();
  html += "<tr><td colspan='7'>" + inactiveEmployeeCount + "</td></tr>";

  const uri = 'data:application/vnd.ms-excel;base64,';

  // Create a link element, set the href attribute, and trigger the click
event
  let link = document.createElement("a");
  link.href = uri + btoa(html);
  link.download = "employee_list.xls";
  document.body.appendChild(link);
  link.click();
  document.body.removeChild(link);
}

function getRow(id){
  $.ajax({
    type: 'POST',
    url: 'employee_row.php',
    data: {id:id},
    dataType: 'json',
    success: function(response){
      $('.empid').val(response.empid);
      $('.employee_id').html(response.employee_id);
                        $('.del_employee_name').html(response.firstname+'
'+response.lastname);
                            $('#employee_name').html(response.firstname+'
'+response.lastname);
      $('#edit_status').val(response.status);
      $('#edit_firstname').val(response.firstname);
      $('#edit_lastname').val(response.lastname);
```

```
      $('#edit_address').val(response.address);
      $('#datepicker_edit').val(response.birthdate);
      $('#edit_contact_info').val(response.contact_info);
      $('#edit_bp').val(response.bp);
      $('#edit_gender').val(response.gender);
      $('#edit_educ').val(response.educ);
      $('#edit_marital').val(response.marital);
      $('#edit_emergency').val(response.emergency);
      $('#edit_sss').val(response.sss);
      $('#edit_health').val(response.health);
      $('#edit_tin').val(response.tin);
      $('#edit_email').val(response.email);
      $('#edit_position').val(response.position);
      $('#edit_schedule').val(response.schedule);


      $('#gender_val').val(response.gender).html(response.gender);
       $('#position_val').val(response.position_id).html(response.descri
ption);
       $('#schedule_val').val(response.schedule_id).html(response.time_i
n+' - '+response.time_out);
    }
  });
}
</script>
</body>
</html>
```

EMPLOYEE_ADD

```
<?php
    include 'includes/session.php';

    if(isset($_POST['add'])){
        $employee_id = $_POST['employee_id'];
        $status = $_POST['status'];
        $firstname = strtoupper($_POST['firstname']);
        $lastname = strtoupper($_POST['lastname']);
        $address = strtoupper($_POST['address']);
        $birthdate = $_POST['birthdate'];
        $bp = strtoupper($_POST['bp']);
        $contact_info = $_POST['contact_info'];
        $gender = $_POST['gender'];
    //  $citizenship = strtoupper($_POST['citizenship']);
        $educ = strtoupper($_POST['educ']);
```

```
        $marital =strtoupper($_POST['marital']);;
        $emergency = $_POST['emergency'];
        $sss = $_POST['sss'];
        $health = $_POST['health'];
        //$language = strtoupper($_POST['language']);
        $tin = $_POST['tin'];
        $email = $_POST['email'];
        $position = strtoupper($_POST['lastname']);
        $schedule = $_POST['schedule'];
        $filename = $_FILES['photo']['name'];
        if(!empty($filename)){
                        move_uploaded_file($_FILES['photo']['tmp_name'],
'../images/'.$filename);
        }

         $sql = "INSERT INTO employees (employee_id, status, firstname,
lastname, address, birthdate, bp, contact_info, gender, educ, marital,
emergency, sss, health,tin, email, position,
       schedule_id, photo, created_on) VALUES ('$employee_id','$status',
'$firstname',        '$lastname',        '$address',        '$birthdate',
'$bp','$contact_info', '$gender','$educ',
         '$marital','$emergency','$sss','$health','$tin','$email','$posi
tion', '$schedule', '$filename', NOW())";
        if($conn->query($sql)){
            $_SESSION['success'] = 'Employee added successfully';
        }
        else{
            $_SESSION['error'] = $conn->error;
        }

    }
    else{
        $_SESSION['error'] = 'Fill up add form first';
    }

    header('location: employee.php');
?>
```

EMPLOYEE_EDIT

```
<?php
    include 'includes/session.php';

    if(isset($_POST['edit'])){
        $empid = $_POST['id'];
        $status = $_POST['status'];
```

```
        $firstname = $_POST['firstname'];
        $lastname = $_POST['lastname'];
        $address = $_POST['address'];
        $birthdate = $_POST['birthdate'];
        $bp = $_POST['bp'];
        $contact_info = $_POST['contact_info'];
        $gender = $_POST['gender'];

        $educ = $_POST['educ'];
        $marital = $_POST['marital'];
        $emergency = $_POST['emergency'];
        $sss = $_POST['sss'];
        $health = $_POST['health'];

        $tin = $_POST['tin'];
        $email = $_POST['email'];
        $position = $_POST['position'];
        $schedule = $_POST['schedule'];

          $sql = "UPDATE employees SET status = '$status',firstname =
'$firstname', lastname = '$lastname', address = '$address', birthdate =
'$birthdate',  bp  =  '$bp',contact_info  =  '$contact_info',  gender  =
'$gender',educ = '$educ',marital = '$marital',emergency = '$emergency',
sss = '$sss',health = '$health',tin = '$tin',email = '$email',position =
'$position', schedule_id = '$schedule' WHERE id = '$empid'";
        if($conn->query($sql)){
            $_SESSION['success'] = 'Employee updated successfully';
        }
        else{
            $_SESSION['error'] = $conn->error;
        }

    }
    else{
        $_SESSION['error'] = 'Select employee to edit first';
    }

    header('location: employee.php');
?>
```

EVALUATION TOOL

SURVEY QUESTIONNAIRE

EVALUATION SURVEY

Based on the research entitled "**DEVELOPMENT OF RADIO FREQUENCY IDENTIFICATION BASED ATTENDANCE MONITORING WITH PAYROLL SYSTEM OFMERCEDES AGRIPRENEUR INTEGRATED FARM SCHOOL INCORPORATED(MAIFSI)**". The researchers are requesting for your cooperation to sincerely and honesty answer this questionnaire. It is reassured that you answer will be treated with confidentiality.

Name (Optional):_____

Kindly check the box that correspond your choice.

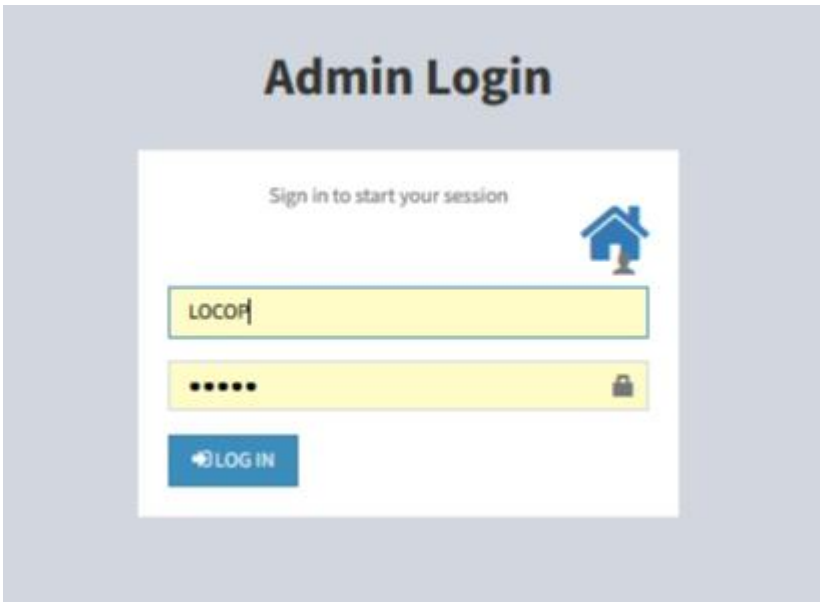
SA – Strongly Agree **D-Disagree**

A = Agree **SD-Strongly Disagree** **U-Undecided**

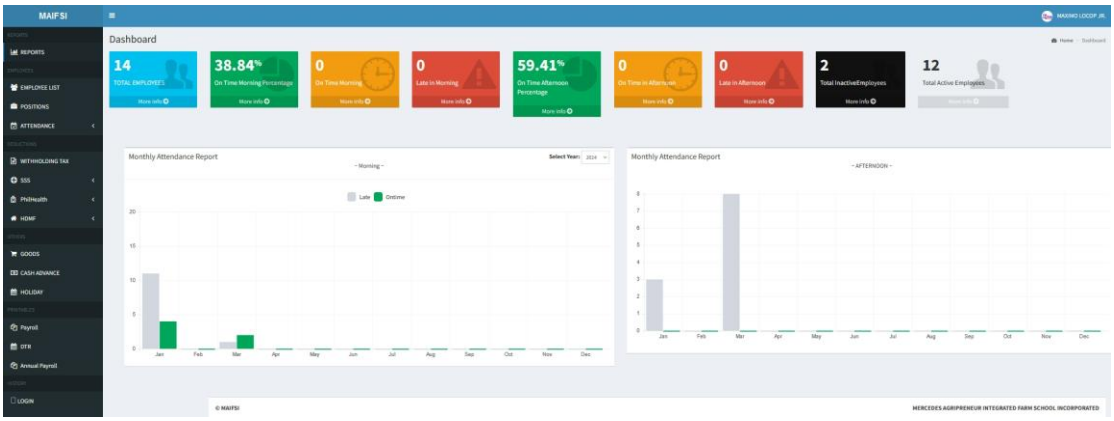
• **To automate the attendance process, eliminating the need for manual tracking and reducing errors and time consumption.**	**SA**	**D**	**A**	**SD**	**U**	**WEIGHT**	**NARRATIVE**
1. The system efficiently records attendance without requiring manual input.							
2. The system accurately captures attendance data, minimizing errors.							
3. The automated attendance process saves time compared to manual tracking methods.							
4. The system effectively updates attendance records in real-time.							
5. The automated attendance system is user-friendly and easy to use.							
To automate the payroll process, eliminating the need for manual tracking and reducing errors and time consumption.							
6. The system accurately calculates payroll based on attendance data.							
7. Automating the payroll process reduces errors in salary computation.							
8. The automated payroll system significantly saves time in payroll processing.							
9. The system effectively integrates attendance data into payroll calculations.							

10. The automated payroll system streamlines payment processes efficiently.							
To use RFID Card to track the attendance of the employees by swiping their RFID Cards when entering and leaving the room.							
11. The RFID-based attendance tracking accurately records entry and exit times.							
12. Using RFID Cards for attendance is a convenient method for employees.							
13. The system effectively identifies individual employees via their RFID Cards.							
14. RFID-based attendance tracking enhances security within the premises.							
15. The RFID Card system is reliable for tracking employee attendance.							
To enhance record of the employees' movements in and out of the room and providing an accurate record of attendance.							
16. The system provides detailed and accurate records of employee movements.							
17. It effectively distinguishes between entries and exits for attendance records.							
18. The system's records accurately reflect actual employee presence.							
19. The system ensures comprehensive coverage of all employee movements.							
20. The system offers a robust and reliable attendance record.							
To prove a secure and reliable data storage.							
21. The system allows only specific accounts to manipulate or modify important information in the system. (e.g. Salary Rate, Employee Information)							
22. The system restricts the number of attempts of logging in.							
23. The system generates payroll of the employees							
24. The system generates accurate computation of payroll.							
25. To prove a secure and reliable data storage.							
TOTAL							

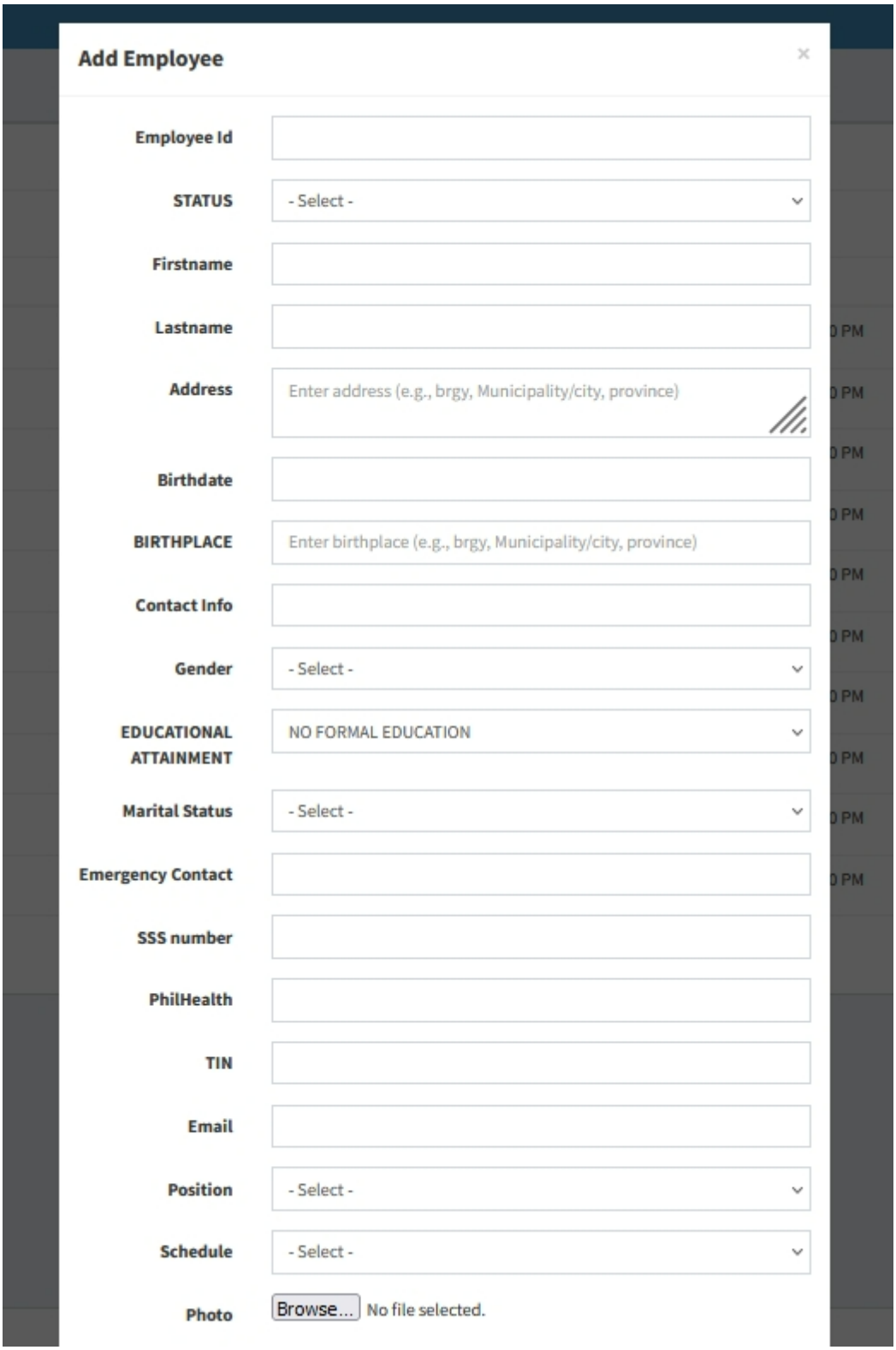
INPUT



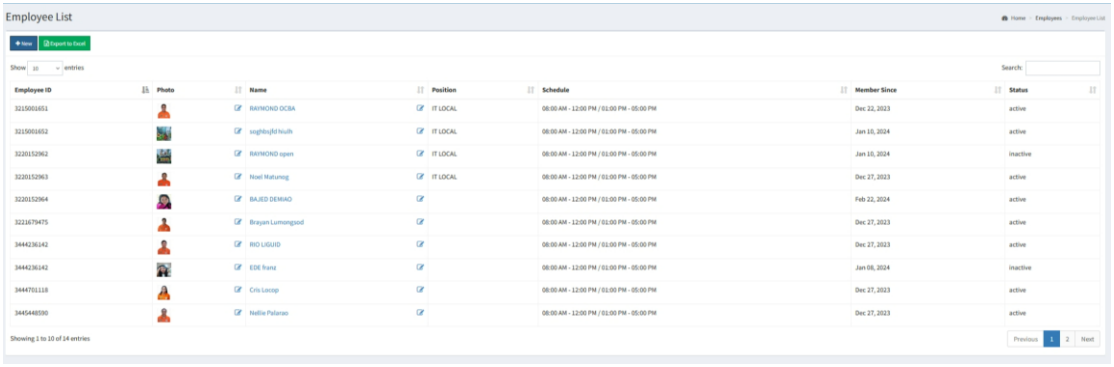
OUTPUTS



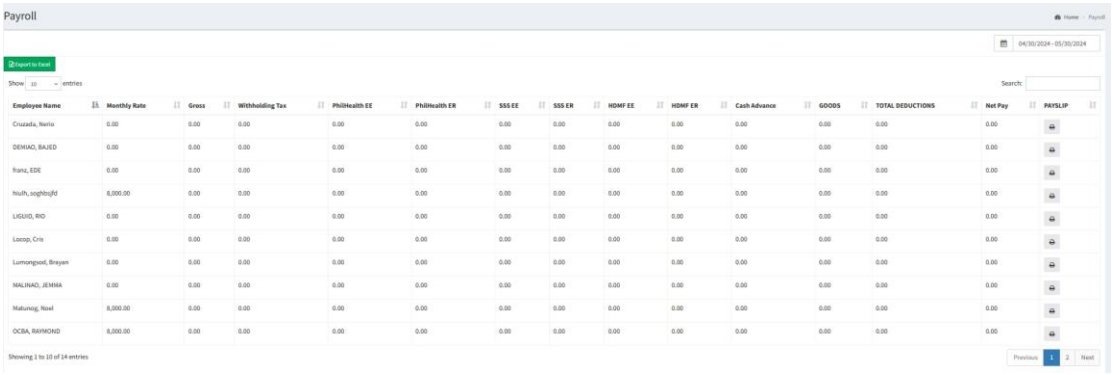
INPUT


Add Employee
Employee Id
STATUS
- Select -
Firstname
Lastname
Address
Enter address (e.g., brgy, Municipality/city, province)
Birthdate
BIRTHPLACE
Enter birthplace (e.g., brgy, Municipality/city, province)
Contact Info
Gender
- Select -
EDUCATIONAL ATTAINMENT
NO FORMAL EDUCATION
Marital Status
- Select -
Emergency Contact
SSS number
PhilHealth
TIN
Email
Position
- Select -
Schedule
- Select -
Photo
Browse...
No file selected.

OUTPUTS



INPUT



OUTPUT

INPUT_DTR

OUTPUT_DTR

Civil Service Form No. 48

DAILY TIME RECORD

-----o0o-----

Santos Mary Angelie

(Name)

For the month of December 2023
Official hours for arrival and departure
Regular days _____
Saturdays _____

Day	A.M.		P.M.		HRS. WORKED
	Arrival	Departure	Arrival	Departure	Hours
1	--	--	--	--	--
2	SATURDAY				
3	SUNDAY				
4	--	--	--	--	--
5	--	--	--	--	--
6	--	--	--	--	--
7	--	--	--	--	--
8	--	--	--	--	--
9	SATURDAY				
10	SUNDAY				
11	--	--	--	--	--
12	--	--	--	--	--
13	--	--	--	--	--
14	--	--	--	--	--
15	--	--	--	--	--
16	SATURDAY				
17	SUNDAY				
18	--	--	--	--	--
19	--	--	--	--	--
20	--	--	--	--	--
21	--	--	--	--	--
22	--	--	--	--	--
23	SATURDAY				
24	SUNDAY				
25	HOLIDAY				
26	--	--	--	--	--
27	--	--	--	--	--
28	--	--	--	--	--
29	--	--	--	--	--
30	SATURDAY				
31	SUNDAY				
Total					8

I certify on my honor that the above is a true and correct report of the hours of work performed, record of which was made daily at the time of arrival and departure from the office.

_____
VERIFIED as to the prescribed office hours:

_____
In Charge

MANUAL/ USER GUIDE

https://drive.google.com/file/d/1feGl_GT2P0jTUmubQiPajdUGLNoHUOdZ/view?usp=sharing

SOUTHERN LEYTE STATE UNIVERSITY

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Email: jgapasin@southernleytestateu.edu.ph
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College of Computer Studies and Information Technology

Team Alias	

Name and Signature	**Project Role**	**Email Address / mobile #**	**Subject Teacher**
Rose Ann M. Bagood	**Programmer**	**rbagood@southernleytestateu.edu.ph**	**Ruther B. Manun-og**
April Rose T. Libot	**Technical Writer**	**alibot@southernleytestateu.edu.ph**	**Ruther B. Manun-og**
Jessa Mae F. Melchor	**Analyst**	**jmelchor@southernleytestateu.edu.ph**	**Ruther B. Manun-og**

Edefrancis C. Acido	**Designer**	**Eacido@southernleytestateu.edu.ph**	**Ruther B. Manun-og**

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College of Computer Studies and Information Technology

Project title:	RFID-Based Attendance Monitoring and Payroll System
Proponents/Researchers:	1. Rose Ann M. Bagood 2. April Rose T. Libot 3. Jessa Mae F. Melchor 4. Edefrancis C. Acido
Scope of the Study:	The RFID-based Attendance Monitoring and Payroll System to provides a better and more efficient experience for attendance tracking and payroll processing at MAIFSI.
Limitations of the Study:	The system is limited in the following aspects: • The evaluation of only the employees of the school who will use the RFID card for attendance monitoring. • Restricted system access for only the School Administrator • Possible limitations in the development of other payroll features due to time constraints.

Project Design/ Development plan	Software Requirements: • Operating system such as Windows 10/11 • Programming language: Visual Studio Code • Database: MySQL • Documentation: Microsoft Word 2016 Hardware Requirements: ● Processor – 11th Gen Intel(R) Core (TM) i5-1135G7 @ 2.40GHz 2.42 GHz ● Memory (RAM) – 8.00 GB (7.78 GB usable) ● Hard Disk – 500G and above ● Plug and Play RFID reader with cards Peopleware Requirements: Peopleware refers to persons involved in the development of the system. • The programmer who has sufficient knowledge on Visual Studio. He/she is needed for he/she will be in charge with the design and implementation of the system. He/she should also have knowledge on database used for him/her to add, edit, delete, and manipulate his/her way through the database. In times that the computer malfunctions, he/she should also know the basics on troubleshooting.

College of Computer Studies and Information Technology

Proponents/Researcher:

1.) Rose Ann M. Bagood
2.) April Rose T. Libot
3.) Jessa Mae F. Melchor
4.) Edefrancis C. Acido

Proposed Project Title:

RFID-BASED ATTENDANCE MONITORING AND PAYROLL SYSTEM

Submitted by: _____ (Signature of Project Manager over printed name) Date: _____	**Noted:** _____ (Signature of Adviser over printed name) Date: _____
Recommending Approval: _____ (Signature of Patent Searcher over printed name) Date: _____	**Approved:** _____ (Signature of the Dean over printed name) Date: _____ **College Dean**

SOUTHERN LEYTE STATE UNIVERSITY

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Website: www.southernleytestateu.edu.ph

College of Computer Studies and Information Technology

CAPSTONE PROJECT HEARING NOTICE

Date Filed: February 03, [ ] PROPOSAL
Ref. Code: _____ [/] ORAL DEFENSE
Date: January 26, 2023__ Time: 9:00 am____ Venue: __IT Department_
DEPARTMENT: information Technology

Research Title:
"Development of RFID-based Attendance Monitoring and Payroll System"

Proponent/s:
Bagood, Rose Ann M.
Libot, April Rose T.
Melchor, Jessa Mae F.
Acido, Edefrancis C.

C E R T I F I C A T I O N

The undersigned members comprising the panel for oral examination hereby agree to the schedule of hearing for the above research. [Please **PRINT NAME** and **SIGN**]

GAMALIEL A. MENIL — **RESEARCH ADVISER 1**

NORMAN CLARIDAD — **RESEARCH ADVISER 2**

RUTHER B. MANUN-OG, MSIT
RESEARCH COORDINATOR

MADELYN B. MANUN-OG, Ph.D — **PANEL MEMBER**

MONDANI R. MANUN-OG — **PANEL MEMBER**

_____
PANEL MEMBER

APPROVED BY:

JOHN PAUL R. GAPASIN, Ph.D
COLLEGE DEAN

IMPLEMENTATION DOCUMENTATION

CURRICULUM VITAE

APRIL ROSE TOGONON LIBOT

PERSONAL INFORMATION

Address: Canipaan, Hinunangan, Southern Leyte

Birthday: April 27, 2002

Birthplace: Hinunangan Southern Leyte

Contact no.: 09759020863

Email: libotapril4@gmail.com

EDUCATION

Sto. Nino 2 Elementary School
(2013-2014)

Canipaan National High School
(2017-2018)

Hinunangan National High School
(2019-2020)

Southern Leyte State University - Hinunangan Campus

Bachelor of Science in Information Technology, Major in Programming
(2023,2024)

SKILLS

Communication

Multitasking

Problem Solving

WORK EXPERIENCE

HR intern
January - May, 2024

Cashier
February - August, 2022

MSWDO-Hinunangan DOLE-JO
November - December, 2020

JESSA MAE F. MELCHOR

PERSONAL INFORMATION

Address: Ambacon, Hinunangan, Southern Leyte

Birthday: November 2, 2000

Birthplace: Tomas Oppus

Contact no.: 09067536589

Email: jessamaefelicildamelchor@gmail.com

EDUCATION

Hinunangan West Central School

(**2014-2015**)

Hinunangan National High School

(2017-2021)

Southern Leyte State University - Hinunangan Campus

Bachelor of Science in Information Technology, Major in Programming
(2023,2024)

WORK EXPERIENCE

BFP Intern

February - May 2024

Hotel Staff

August 2021-2023

SKILLS

Ability to work independently under pressure

Fast and efficient learner

Proficient in Microsoft Word and PowerPoint

Capable of adapting to new technologies

EDEFRANCIS C. ACIDO

PERSONAL INFORMATION

Address: Mercedes, Silago, Southern Leyte
Birthday: April 24,1998
Birthplace: Quezon City
Contact no.: 09107391639
Email: efef.acido24@gmail.com

EDUCATION

Payatas A. Elementary School
(2009-2010)

Mercedes National High School
(2015-2016)

Southern Leyte State University - Hinunangan Campus
Bachelor of Science in Information Technology, Major in Programming
(2023,2024)

WORK EXPERIENCE

IT Dept. Intern
January - May 2024

Salesboy
2019- 2022

SKILLS

Computer/Cellphone Technician

ROSE ANN M. BAGOOD

PERSONAL INFORMATION

Address: Mercedes, Silago, Southern Leyte

Birthday: December 19, 2001

Birthplace: Mercedes, Silago, Southern Leyte

Contact no.: 09462291438

Email: roseannbagood59@gmail.com

EDUCATION

Mercedes Adventist Multi-Grade School
(2013-2014)

Mercedes National High School
(2017-2018)

Southern Leyte State University - Hinunangan Campus
Bachelor of Science in Information Technology, Major in Programming
(2023,2024)

WORK EXPERIENCE

Registrar intern
January - May, 2024

Part-time Salesperson
January 2021- July 2022

SKILLS

Experienced in MySQL

Skilled in phpMyAdmin

Agile Method

Microsoft Word, Excel, PPT, Publisher