



A college under Mapúa Malayan Colleges Laguna

MO-IT101 - Computer Programming 1 (A1103)

Milestone 1: Requirements Identification

Group Name:	Group 1282025
Group Members:	Christine Marie Pervera Grazielle Felice Canaza Maria Alissa Bernales Rhea Fel Decena Joana Marie Nesnia Red Billedo Rejie Esgana
Program:	Bachelor of Science in Information Technology
Term	2nd Term, 2024-2025

1. Project Overview

1.1. Project name: MotorPH Payroll Portal

1.2. Objective: To develop a payroll system for MotorPH Payroll Employees that efficiently manages employee details and automates salary calculations. The system will initially focus on showing employee information (employee number, employee name, birthday) and computing weekly salaries based on hours worked while also considering deductions. This aims to ensure seamless integration with employee data management and broader payroll functionalities.

2. Key Points



A college under Mapúa Malayan Colleges Laguna

2.1. Project Requirements

1	Main Problem Statement	<p>MotorPH Payroll Employees are faced with the possibility of inefficiencies, errors, and delays in salary processing on a daily basis with manual calculations which increase the risk of payroll discrepancies which might lead to disputes and administrative burdens.</p> <p>With this, the client aims to streamline and automate their inventory and payroll processes to ensure efficient management of employee details and salaries. The immediate need (Phase 1) focuses on automating employee information presentation and salary calculation to reduce manual errors and improve efficiency.</p>
2	Assumptions about the Requirement	<ul style="list-style-type: none"> ♦ The system will be built incrementally, with additional features added over time. ♦ Employee data will be stored in Google Sheets (for now) but might be migrated to a database later. ♦ There will be different user roles, such as HR personnel, employees, and administrators. ♦ The payroll calculations should comply with Philippine labor laws (e.g., BIR, DOLE). ♦ Employees might have different pay structures (e.g., hourly vs. fixed salary). ♦ Log-in and log-out times will be used to calculate worked hours, with a 10-minute grace period.
3	End Goal in Completing The Project	<p>To develop a fully functional payroll system that automatically processes salaries based on worked hours, deducts necessary contributions, and presents employee details in a structured format.</p>

4	Client's Feature Requirements	<p>Functional Requirements (What the system must do)</p> <ul style="list-style-type: none"> ✓ Employee Information Presentation – Display employee number, name, and birthday. ✓ Work Hours Calculation – Determine the number of hours worked per week based on log-in/log-out times. ✓ Gross Salary Calculation – Compute weekly wages based on hours worked and hourly rate. ✓ Net Salary Calculation – Apply salary deductions (SSS, PhilHealth, Pag-IBIG, and Withholding Tax). <p>Non-Functional Requirements (How the system should perform)</p> <ul style="list-style-type: none"> ♦ User-Friendly UI – The interface should be clear and easy to navigate. ♦ Accuracy & Compliance – The salary computation must align with government regulations. ♦ Scalability – The system should be expandable for additional payroll and inventory features. ♦ Data Security – Employee salary details should be protected from unauthorized access.
5	Are the features part of a process? If yes, what are the steps?	<p>Yes, the features are part of a payroll processing workflow:</p> <ol style="list-style-type: none"> 1) Log-in and Log-out Tracking – Capture employee attendance. 2) Work Hours Computation – Calculate total hours worked per week. 3) Salary Computation <ul style="list-style-type: none"> ♦ Compute gross salary based on work hours. ♦ Apply deductions (SSS, PhilHealth, Pag-IBIG, Tax). ♦ Calculate net salary. 4) Presentation of Employee Details and Salary Breakdown – Display the computed salary and deductions. 5) Testing & Validation – Ensure the accuracy of computations.

6	Alternative Feature Development Approaches	Yes, instead of using Google Sheets, the system can store data in an SQL database for better scalability. An automated attendance system (e.g., biometric log-in or RFID-based system) can replace manual log-in/log-out records. The payroll system can also integrate with HR software for managing leaves, overtime, and bonuses.
7	Requirement Completion Criteria	A working code that successfully: 1) Displays employee details correctly. 2) Accurately calculates weekly work hours. 3) Computes gross salary based on hours worked. 4) Applies correct deductions and presents net salary. 5) Passes testing and meets the client's expectations in Week 11.
8	Workflow Progression Path	The process starts by importing employee and log-in/out data. And then, log-in/out times will be processed to calculate hours worked, compute salaries, apply deductions, and present results.
9	Results Expected Display Location	In a user-friendly interface or dashboard for visualization. Or optionally, as downloadable reports (e.g., PDFs or Excel files).
10	Task Initiation Requirements	<ul style="list-style-type: none"> ◆ Employee database format (Google Sheets structure). ◆ Work hours policy (overtime, breaks, grace periods). ◆ Salary computation formula (hourly rate, deductions matrix). ◆ Access to log-in/log-out data. ◆ Tax and contribution rates for correct deduction calculations.

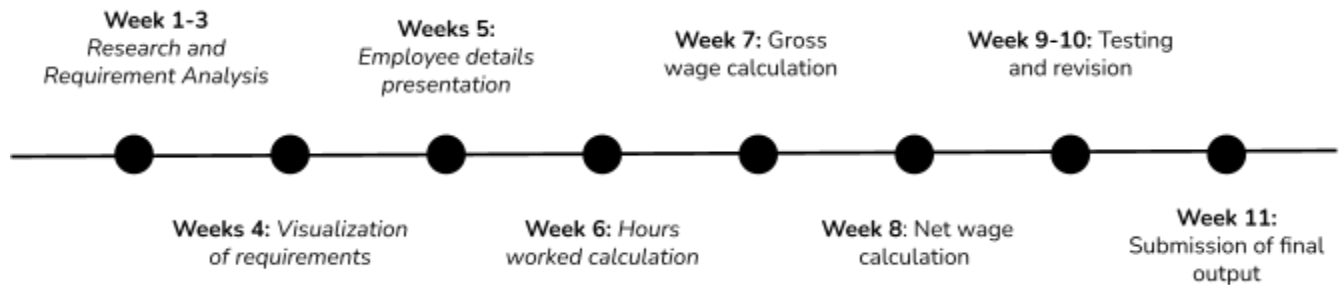
11	Alternative Scenario Analysis	<p>✓ Late Logins & Deductions – What happens if employees frequently log in late? Will there be penalties?</p> <p>✓ Overtime Pay – Will there be additional pay for hours beyond 40 per week?</p> <p>✓ Absences and Leave – How will the system handle unpaid leaves?</p> <p>✓ Bonus and Incentives – Will bonuses be included in the payroll computation?</p> <p>✓ Error Handling – How will the system deal with incorrect log-in data or missing records?</p>
12	Monitoring Task Checklist	<p>📌 Phase 1 Tasks:</p> <ul style="list-style-type: none"> ♦ Week 4: System visualization & UI design ♦ Week 5: Employee details presentation ♦ Week 6: Hours worked calculation ♦ Week 7: Gross salary computation ♦ Week 8: Net salary computation ♦ Week 9-10: Testing & revisions ♦ Week 11: Final output submission
13	Solution Effectiveness Review	<p>The outlined features address their immediate need for a basic payroll system with automated calculations and streamlined employee management. However, scalability and integration with future requirements must be considered.</p>

2.2. Timelines and Expectations

MotorPH expects the solution proposal and recommendation within 11 weeks. The timeline is as follows:



A college under Mapúa Malayan Colleges Laguna



2.3. Project Plan

Disclaimer: The start date, end date, and buffer times are managed internally and may not be fully reflected in this Project Plan. The timelines provided serve as a general guideline based on project requirements and are subject to adjustments as needed.

This project anticipates scope changes (scope creep) due to evolving requirements, stakeholder input, or unforeseen challenges. As a result, certain plans, features, or deliverables may be revised to align with project needs.

Milestone 1: Requirements Identification			
Task	Description	Owner	Timeline
Project Kickoff (Requirements Gathering and Analysis)	Define scope, initial discussions	@everyone	Week 1-3
Task delegation	Assigning tasks to team members	Maria Alissa ...	Week 1-3
Team alignment	Ensuring clarity in goals, roles, and expectations.	Maria Alissa ...	Week 1-3
Requirements Identification	Gather project requirements, and user needs	Rhea Fel Dec...	Week 4
Effort Estimation	Evaluating the complexity of tasks.	Joana Marie ...	Week 4



A college under Mapúa Malayan Colleges Laguna

Interpreting System Designs: Use Case Diagrams & Wireframes	Must align with requirements	Christine Mar... Grazielle Feli... Red Billedo Rejie Esgana	Week 4
Submission of Output	Submit individually via Camu	@everyone	Week 4
Briefing	Discuss next steps, challenges.	@everyone	Week 4

This phase ensures a structured and efficient approach to the initial development of the Payroll Portal. The next milestone is the structural coding phase, where the foundational functionalities, including employee data handling, basic salary computation, and preliminary tax calculations, will be initially implemented and tested.

Milestone 2: Initial Coding (Console-based output)				
Phase	Task	Description	Owner	Timeline
1. Setup & Configuration	Environment Setup	Install necessary tools	Dev Team	Week 5
	Basic Database Schema	Create tables for employees, payroll, payments, and taxes	Database Engineer	Week 5
2. Employee Management (Console CRUD Operations)	Add Employee	Input employee details (name, ID, salary, position) via console	Backend Dev	Week 5
	View Employees	Display all employees with salary info in console output	Backend Dev	Week 5
	Update/Delete Employee	Modify or remove employee records from the system	Backend Dev	Week 5
3. Payroll Calculation (Console-Based Processing)	Basic Salary Calculation	Compute employee salary based on fixed/hourly rate	Backend Dev	Week 6-8
	Tax & Deductions	Deduct income tax, social security, and other withholdings	Backend Dev	Week 6-8

	Overtime & Bonuses	Apply additional earnings for extra work hours	Backend Dev	Week 6-8
4. Payroll Processing & Output (Console-Based Reports)	Generate Payslip	Display salary breakdown in console (Gross, Net Pay, Deductions)	Backend Dev	Week 6-8
	Payroll Summary	List all employees with salary calculations	Backend Dev	Week 6-8
5. Testing & Debugging	Unit Testing	Verify correct calculations (salary, tax deductions)	QA Engineer	Week 9
	Error Handling	Manage invalid inputs and incorrect salary entries	QA Engineer	Week 9
6. Documentation & Final Review	Developer Notes	Document functions, logic, and expected output	Tech Writer	Week 9
	Code Optimization	Final debugging, refactoring, and performance checks	Dev Team	Week 9
7. Briefing	Discuss next steps, challenges.	Team review of progress and challenges	@everyone	Week 9
8. Submission of output	Submit individually via Camu	Initial coding submission	@everyone	Week 9

This phase outlines the development of the Initial Coding Phase for the Payroll System, ensuring timely delivery, compliance, security, and efficiency. Adhering to best practices in software development, testing, and documentation achieving a seamless payroll solution for the organization.

Milestone 3: Final Coding (Console-based output)				
Phase	Task	Description	Owner	Timeline
1. Code Refinement & Feature Enhancements	Refactor Existing Code	Optimize payroll logic, improve maintainability	Dev Team	Week 10
	Implement Data	Connect console app with a file	Backend Dev	Week 10



**MAPÚA MALAYAN
DIGITAL COLLEGE**

A college under **Mapúa Malayan Colleges Laguna**

	Persistence	system (CSV, JSON, SQLite) for record storage		
	Add Search & Filter	Enable searching employees by name, ID, department	Backend Dev	Week 10
	Implement Payroll History	Store and retrieve past payroll transactions	Backend Dev	Week 10
2. Advanced Payroll Processing & Reports	Multi-Level Taxation	Implement different tax brackets and exemptions	Backend Dev	Week 10
	Benefits & Deductions	Enhance deductions (healthcare, insurance, retirement)	Backend Dev	Week 10
	Detailed Payslip Generation	Format payslip with structured breakdown, export as text file	Backend Dev	Week 10
	Payroll Summary Report	Generate monthly/annual payroll summaries	Backend Dev	Week 10
3. Security & Error Handling Enhancements	Input Validation & Error Handling	Implement strict validation for user inputs and prevent invalid entries	Backend Dev	Week 10
	Data Encryption	Secure sensitive payroll data using encryption methods	Security Team	Week 10
	Role-Based Access Control (RBAC)	Define user roles and restrict access based on permissions	Backend Dev	Week 10
	Logging & Audit Trails	Implement system logs for payroll transactions and security audits	Backend Dev	Week 10
4. Performance Optimization & Testing	Optimize Data Processing	Improve data processing efficiency for large payroll datasets	Backend Dev	Week 10
	Unit & Integration Testing	Conduct extensive unit tests on payroll calculations and integrate	QA Team	Week 10

		testing between modules		
	Stress Testing	Simulate high-load scenarios to test system stability	QA Team	Week 10
	Bug Fixes & Refinements	Address reported issues from testing and optimize performance	QA Team	Week 10
5. Finalization & Documentation	User Guide & Documentation	Create a user manual for HR & finance personnel	Technical Writer	Week 10
	Code Documentation	Ensure inline comments and structured documentation for maintainability	Dev Team	Week 10
	Final Review & Code Freeze	Conduct final code review and lock changes before release	Project Lead & Dev Team	Week 10
	Deployment Preparation	Prepare the system for deployment, finalize testing	DevOps	Week 10
6. Submission of output	Submit individually via Camu	Final coding submission	@everyone	Week 11

This phase ensures the console-based payroll system is fully functional, secure, and optimized before deployment. It covers feature completion, security enhancements, performance tuning, rigorous testing, and final documentation.

2.4. Effort Estimation

Task breakdown					
Task	Subtask	Estimated Duration (Hours)	Buffer (20%/hour)	Total effort with buffer (hours)	Complexity
#1 Project Planning (Initial)	<ul style="list-style-type: none"> Team alignment Requirement gathering 	7.5	3	10.5	Low



**MAPÚA MALAYAN
DIGITAL COLLEGE**

A college under **Mapúa Malayan Colleges Laguna**

	• Meetings				
#2 Design	• Wireframes • System visualization • UI designs	7.5	3	10.5	Medium
#3 Employee detail presentation	• Data gathering • Display	7.5	3	10.5	Medium
#4 Work hours calculation	• Attendance tracker • Punch in/out • Overtime	15	6	21	Medium
#5 Gross salary computation	• Payroll computation • Corrections • Leaves and holidays	15	6	21	High
#6 Net salary calculation	• Statutory deductions • Incentives	15	6	21	High
#7 Testing functional testing	• Debugging • Feedback/requests • Fixing	15	6	21	High
#8 Deployment	• Lunching • Documentation • Setup	7.5	3	10.5	Medium
Total Estimated Effort					
Before buffer: 90 hours					



A college under Mapúa Malayan Colleges Laguna

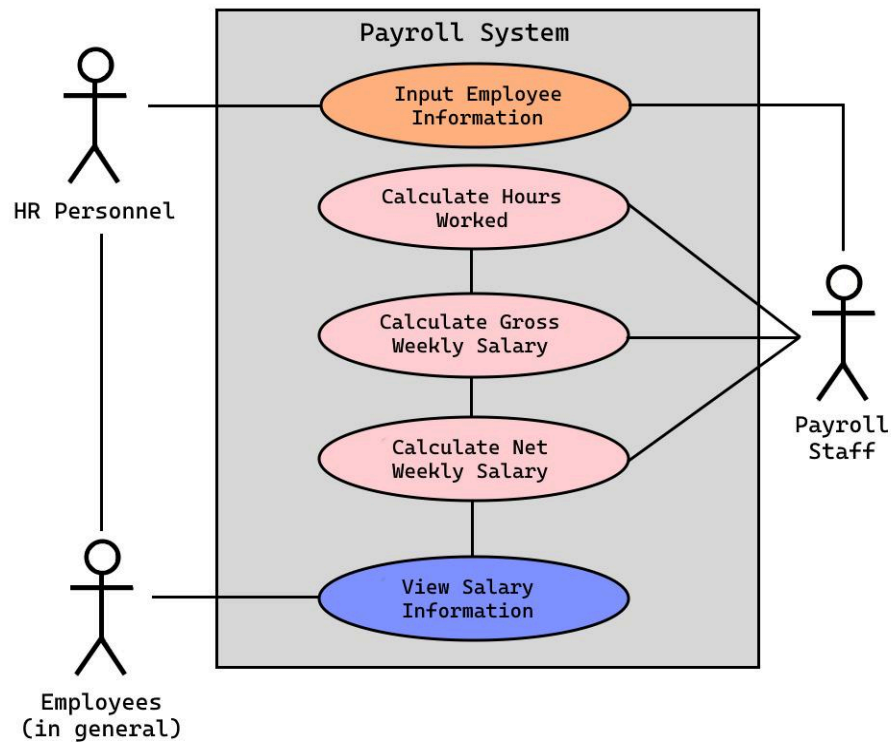
After buffer: 126 hours				
Duration: 16.8 weeks / 117 days				
Number of developers: 7				

This table outlines the estimated effort for developing a payroll system, breaking tasks into subtasks with projected hours and a 20% buffer. The total effort is 126 hours over 16.8 weeks (117 days) with a 7-member team. High-complexity tasks like salary computation and testing require more time, while planning and deployment need less.

2.5. Visualization

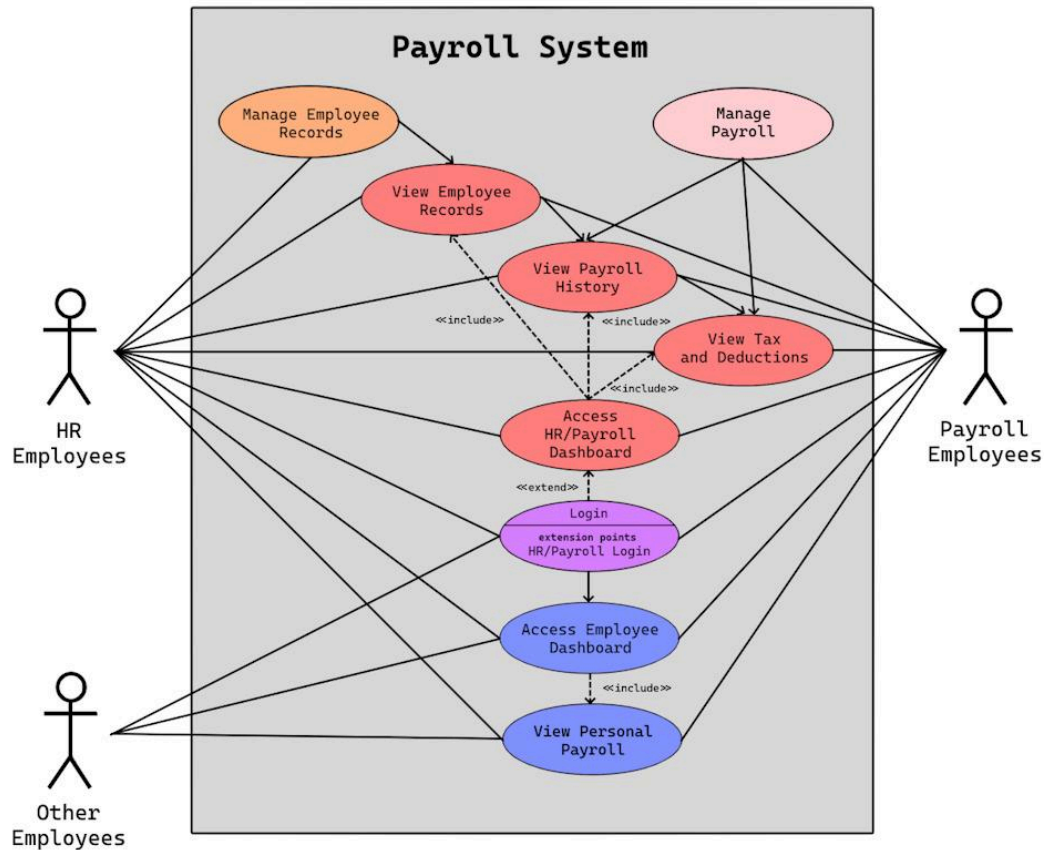
■ Use Case Diagrams

Use case diagrams summarize the relationships and interactions between users, or more accurately termed actors, and the different ways the system can be used, or use cases. As such, we identified the most basic requirements that MotorPh asked for, and created a use case diagram showcasing this.



We immediately established differences between the different departments, splitting them up into HR, Payroll, and General Employees. They were assigned orange, pink, and blue respectively.

According to Alistair Cockburn's model, this use case diagram is **Level 1, Kite**. It covers the actors' goals very broadly in a summary, but has clearly-defined roles that separates it from Level 0, Cloud. It also doesn't cover all of the more specific functions that each actor needs to perform, making it above Level 2, Sea.



Then, we expounded on the system further as we figured out functions that are necessary for the system to work, primarily logging in and separating the system into two sides, one for HR/Payroll, and another for the personal payroll. As the system has been broadened and the relationships of HR and Payroll employees can be seen more clearly, General employees have been turned into Other employees.

Additionally, more colors were introduced. Orange remains HR and Pink remains Payroll, but the Blue came to signify the Personal side of the system. Red indicates the shared HR/Payroll side and its functions. Finally, Purple indicates a use case used by all actors.

According to Alistair Cockburn's model, this use case diagram is **Level 3, Fish**. It offers much more specificity in comparison to the earlier Kite model, but is not so low-function that all of the subprocesses are identified, which would make it Level 4, Clam. More specific elements such as the

login and accessing of the system also firmly place this below Level 2, Sea, making this a subfunction overview of the payroll system.

Additional Use Case Diagram-System Rationale:

WHY THIS USE CASE DIAGRAM ALIGNS WITH THE PAYROLL SYSTEM PROJECT REQUIREMENTS:

**GROUP
1282025** 

CRITERIA	Explanation & Alignment with the Use Case Diagram
EMPLOYEE DETAILS PRESENTATION	THE "VIEW EMPLOYEE RECORDS" USE CASE ENSURES THAT EMPLOYEE DETAILS (ID, NAME, BIRTHDAY) CAN BE DISPLAYED, FULFILLING PHASE 1'S REQUIREMENT OF PRESENTING EMPLOYEE INFORMATION.
SALARY CALCULATION	THE "MANAGE PAYROLL" USE CASE REPRESENTS SALARY COMPUTATION BASED ON HOURS WORKED. THE "VIEW PAYROLL HISTORY" AND "VIEW TAX AND DEDUCTIONS" USE CASES ALLOW EMPLOYEES TO TRACK SALARY BREAKDOWNS, ALIGNING WITH THE NEED FOR GROSS AND NET SALARY CALCULATIONS.
ROLE-BASED ACCESS CONTROL	THE USE CASE DIAGRAM DEFINES DISTINCT USER ROLES: HR EMPLOYEES, PAYROLL EMPLOYEES, AND OTHER EMPLOYEES, ENSURING PROPER ACCESS TO PAYROLL INFORMATION.
SECURITY & AUTHENTICATION	THE "LOGIN" USE CASE ENSURES SECURE ACCESS TO PAYROLL DATA, WITH HR/PAYROLL LOGIN AS AN EXTENSION, RESTRICTING SENSITIVE PAYROLL FUNCTIONALITIES TO AUTHORIZED PERSONNEL.
DASHBOARD & SYSTEM NAVIGATION	THE "ACCESS EMPLOYEE DASHBOARD" AND "ACCESS HR/PAYROLL DASHBOARD" USE CASES ENABLE DIFFERENT USER ROLES TO INTERACT WITH THE SYSTEM BASED ON THEIR NEEDS.
LOGICAL DEVELOPMENT STRUCTURE	THE DIAGRAM OUTLINES ESSENTIAL SYSTEM FUNCTIONALITIES, MAKING IT EASIER TO IMPLEMENT FEATURES INCREMENTALLY, STARTING WITH BASIC PAYROLL MANAGEMENT BEFORE ADDING MORE COMPLEX INTERACTIONS.

■ Wireframes

The following wireframes are the proposed two-dimensional skeletal layout for the functions of the payroll system that can be accessed by both the payroll staff and a normal employee. The wireframes below provide an overview of the page structure, layout, information architecture, user flow, functionality, and intended behaviors.



A college under Mapúa Malayan Colleges Laguna

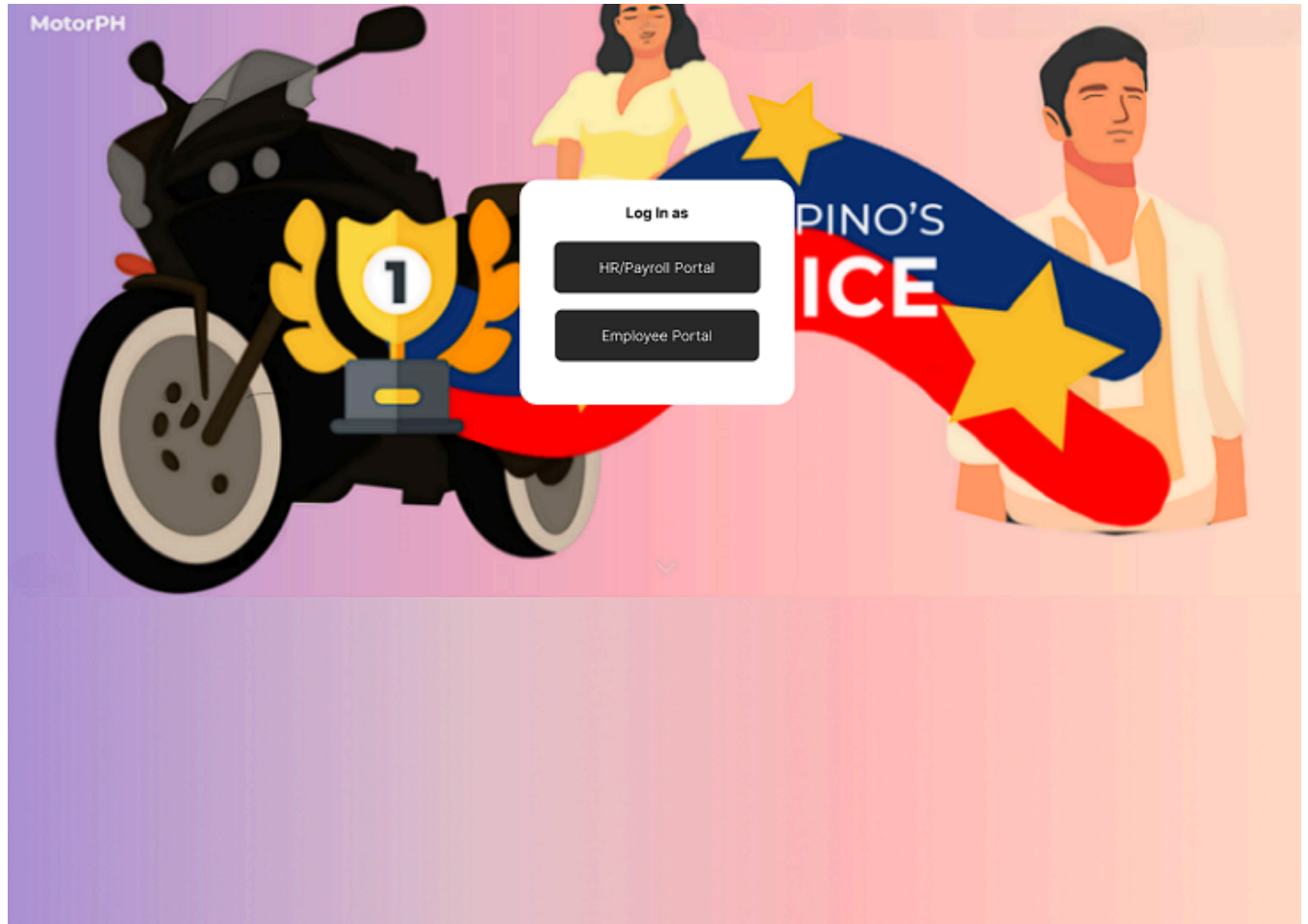


Figure 1. User Landing

The payroll system has two separate portals for the HR/payroll staff and common employees and is specified as “HR/Payroll Portal” and “Employee Portal” correspondingly as shown in figure 1.



A college under Mapúa Malayan Colleges Laguna

HR/Payroll Portal

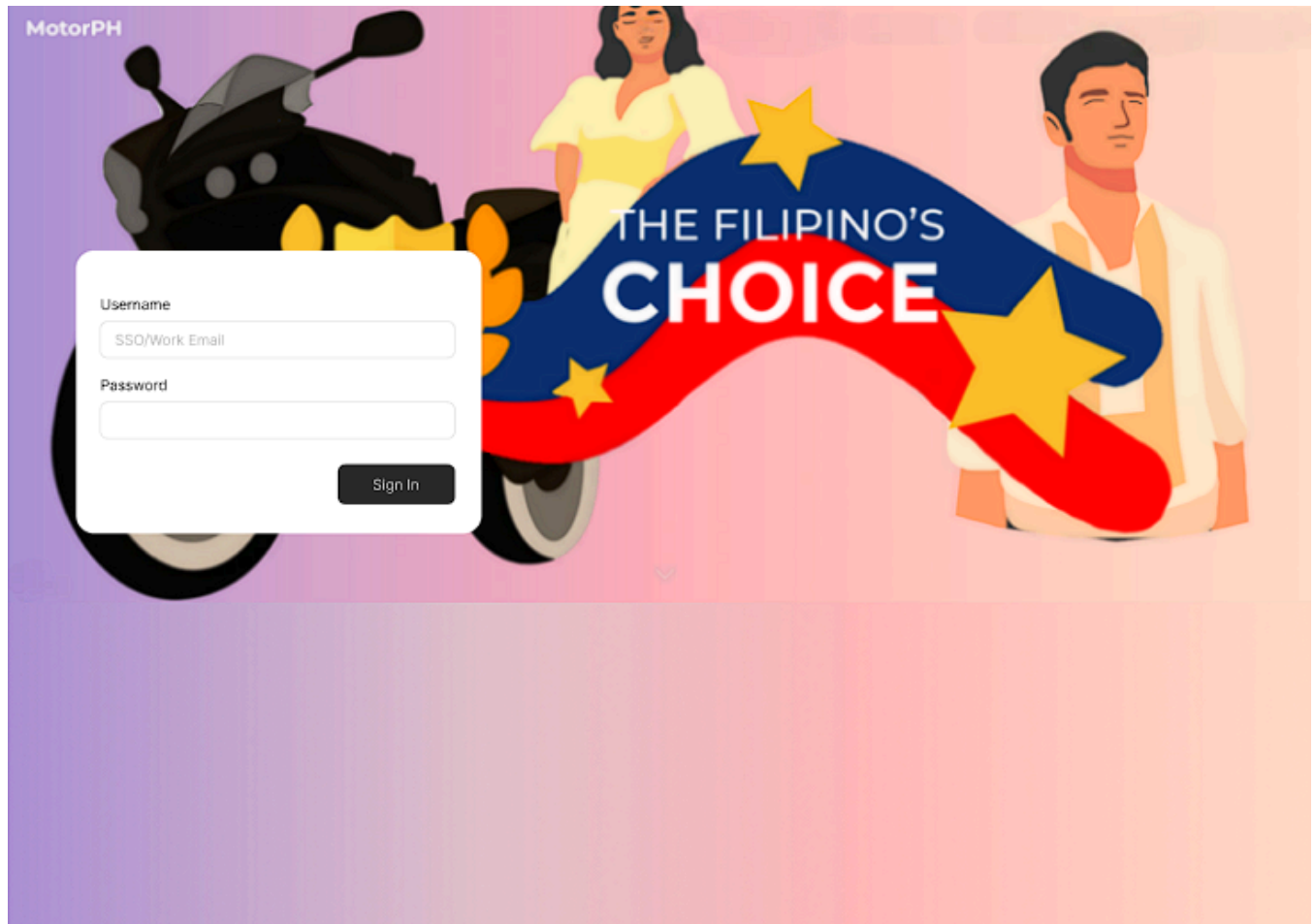


Figure 2. Portal Log in

Clicking the “HR/Payroll Portal” button will lead to the login page intended for the HR/Payroll Staffs as shown in figure 2. Employees must type down their username and password before clicking the “Sign in” button.



A college under Mapúa Malayan Colleges Laguna

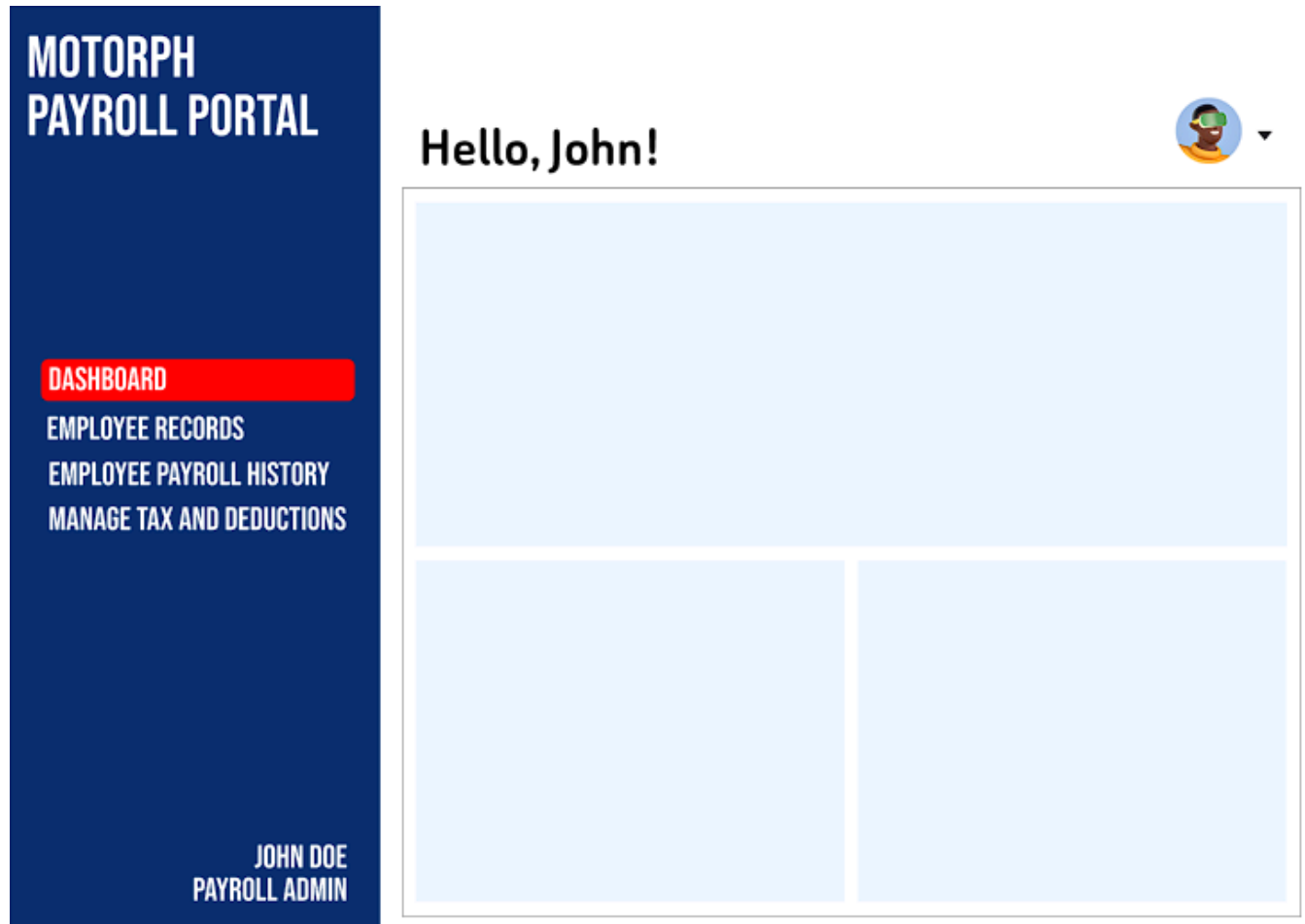


Figure 3. Dashboard

If user credentials are successfully authenticated in the Login page, employees should be directed to the “Dashboard” page highlighted in red as shown in figure 3. Still looking at the figure above, the name and position of the employee who logged in can be seen at the bottom left corner, and their picture at the upper right corner.



A college under Mapúa Malayan Colleges Laguna

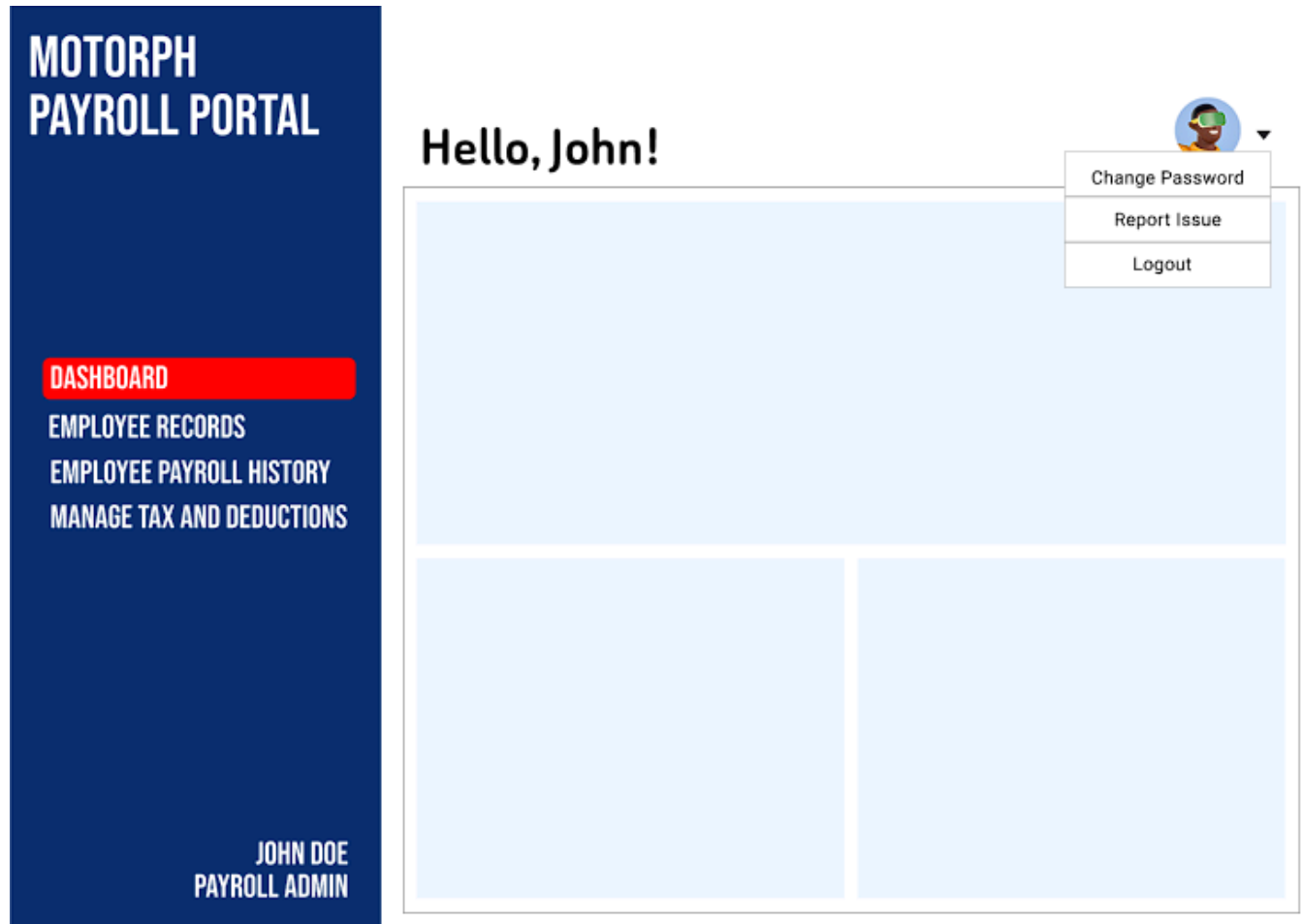


Figure 3.1. Dashboard - Change Password, Report Issue and Logout

The black triangle at the right side of the employee's picture is a button that when clicked, allows the employee to change their password, report an issue, and log out from the portal. The buttons of the aforementioned functions are as follows: "Change Password", "Report Issue", and "Logout" as seen in figure 3.1. This page also shows [the blue blank area].

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

**JOHN DOE
PAYROLL ADMIN**


EMPLOYEE RECORDS

Add Employee

≡

Hinted search text

🔍



Employee #	Last Name	First Name	Birthday	Phone Number	Status
100001	Garcia	Manuel III	10/11/1993	966-860-270	Regular
100002	Lim	Antonio	06/19/1988	171-867-411	Regular
100003	Aquino	Bianca Sofia	08/04/1989	966-899-370	Regular
100004	Reyes	Isabella	06/16/1994	786-868-477	Regular
100005	Hernandez	Eduard	09/23/1989	088-861-012	Regular
100006	Villanueva	Andrea Mae	02/14/1988	918-621-603	Regular
100007	San Jose	Brad	03/15/1996	797-009-261	Regular
100008	Romualdez	Alice	05/14/1992	983-606-799	Regular
100009	Atienza	Rosie	09/24/1948	266-036-427	Regular
100010	Alvaro	Roderick	03/30/1988	053-381-386	Regular
100011	Salcedo	Anthony	09/14/1993	070-766-300	Regular
100012	Lopez	Josie	01/14/1987	478-355-427	Regular
100013	Farala	Martha	01/11/1942	329-034-366	Regular

Figure 4. Employee Records

Clicking the “Employee Records” will highlight it in red and show MotorPH’s employee records with their information in separate columns labeled as ‘Employee #’, ‘Last Name’, ‘First Name’, ‘Birthday’, ‘Phone Number’, and ‘Status’ as seen in figure 4. The search bar at the top is a hinted search bar where any information can be typed and searched as long as what was typed is within the ‘employee records’ database.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY


MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

EMPLOYEE RECORDS

Add Employee

Hinted search text



Employee #	Last Name	First Name	Birthday	Phone Number	Status
100001	Garcia	Manuel III	10/11/1993	966-860-270	Regular
100002					Regular
100003					Regular
100004					Regular
100005					Regular
100006					Regular
100007					Regular
100008					Regular
100009					Regular
100010	Alvaro	Roderick	03/30/1988	053-381-386	Regular
100011	Salcedo	Anthony	09/14/1993	070-766-300	Regular
100012	Lopez	Josie	01/14/1987	478-355-427	Regular
100013	Farala	Martha	01/11/1942	329-034-366	Regular

X

Employee #

Birthday

Last Name

Phone Number

First Name

Status

Add Employee to Database

Figure 4.1 Employee Records - Add Employee

Clicking the blue “Add Employee” button will allow the addition of an employee within the database. ‘Employee #’, ‘Last Name’, ‘First Name’, ‘Birthday’, ‘Phone Number’, and ‘Status’ must be filled out before clicking the “Add Employee to Database” button as seen in figure 4.1. Exiting the interface can be done just by clicking the “X” button at the upper right corner.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

EMPLOYEE PAYROLL HISTORY

Employee #	Last Name	First Name	SSS #	PhilHealth #	TIN #	Pag-Ibig #
100001	Garcia	Manuel III	44-4506057-3	820126853951	442-605-657-000	691295330870
100002	Lim	Antonio	52-2061274-9	331735646338	683-102-776-000	663904995411
100003	Aquino	Bianca Sofia	30-8870406-2	177451189665	971-711-280-000	171519773969
100004	Reyes	Isabella	40-2511815-0	341911411254	876-809-437-000	416946776041
100005	Hernandez	Eduard	50-5577638-1	957436191812	031-702-374-000	952347222457
100006	Villanueva	Andrea Mae	49-1632020-8	382189453145	317-674-022-000	441093369646
100007	San Jose	Brad	40-2400714-1	239192926939	672-474-690-000	210850209964
100008	Romualdez	Alice	55-4476527-2	545652640232	888-572-294-000	211385556888
100009	Atienza	Rosie	41-0644692-3	708988234853	604-997-793-000	260107732354
100010	Alvaro	Roderick	64-7605054-4	578114853194	525-420-419-000	799254095212
100011	Salcedo	Anthony	26-9647608-3	126445315651	210-805-911-000	218002473454
100012	Lopez	Josie	44-8563448-3	431709011012	218-489-737-000	113071293354
100013	Farala	Martha	45-5656375-0	233693897247	210-835-851-000	631130283546

Figure 5. Employee Payroll History

Clicking the “Employee Payroll History” will highlight it in red and show MotorPH’s employee payroll history with their information on the list in separate columns labeled as ‘Employee #’, ‘Last Name’, ‘First Name’, ‘SSS #’, ‘PhilHealth #’, ‘TIN #’, and ‘Pag-Ibig #’ as shown in figure 5. The search bar at the top is a hinted search bar where any information can be typed and searched as long as what was typed is within the ‘employee payroll history’ database.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

EMPLOYEE PAYROLL HISTORY

Hours Worked:

From: (MM/DD/YYYY)

To: (MM/DD/YYYY)

Date:

Employee Name: Antonio Lim

Employee ID	Employee Name	Employee ID	Employee Name
100001		100007	
100002		100008	
100003		100009	
100004		100010	
100005		100011	
100006		100012	
100007		100013	Farala
100008			Martha
100009			45-5656375-0
100010			233693897247
100011			210-835-851-000
100012			631130283546

Hourly Rate:

Basic Pay:

Overtime Pay:

Night Differential:

Leave Credits:

Benefits:

Total Earnings:

Total Contributions:

Total Loan Deductions:

Withholding Tax:

Net Pay:

Withholding Tax:

Monthly Contributions:

SSS:

PhilHealth:

Pag-Ibig:

Loan Deductions:

SSS:

PhilHealth:

Pag-Ibig:

[Download Payslip](#)

Figure 5.1. Employee Payroll History - Payroll Interface

Clicking a particular employee from the list will summon the 'Payroll Interface' as shown in figure 5.1. At the upper right corner of the interface, payroll end dates can be selected which will then recall the information and be displayed before the following segments:

- Employee Name
- Hours Worked
- From and To (specifies the duration calculated)
- Hourly Rate
- Basic Pay
- Overtime Pay
- Night Differential
- Leave Credits



A college under Mapúa Malayan Colleges Laguna

- Withholding Tax
- Monthly Contributions (SSS, PhilHealth, Pag-Ibig)
- Loan Deductions (SSS, PhilHealth, Pag-Ibig)
- Total Earnings
- Total Contributions
- Total Loan Deductions
- Net Pay

In this way, one can view an employee's payroll history and if needs arise, the employee can download and print the payslip of the selected date by clicking the "Download Payslip" button. Lastly, exiting the interface is as easy as clicking the "X" button at the upper right corner as shown in figure 5.1.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

MANAGE TAX AND DEDUCTIONS

Employee #	Employee Name	Tax Deductions	Other Deductions	Total Deductions	Action
100001	Garcia, Manuel III	300.00	1500.00	1800.00	Edit/View
100002	Lim, Antonio	300.00	1500.00	1800.00	Edit/View
100003	Aquino, Bianca Sofia	300.00	1500.00	1800.00	Edit/View
100004	Reyes, Isabella	300.00	1500.00	1800.00	Edit/View
100005	Hernandez, Eduard	300.00	1500.00	1800.00	Edit/View
100006	Villanueva, Andrea Mae	300.00	1500.00	1800.00	Edit/View
100007	San Jose, Brad	300.00	1500.00	1800.00	Edit/View
100008	Romualdez, Alice	300.00	1500.00	1800.00	Edit/View
100009	Atienza, Rosie	300.00	1500.00	1800.00	Edit/View
100010	Alvaro, Roderick	300.00	1500.00	1800.00	Edit/View
100011	Salcedo, Anthony	300.00	1500.00	1800.00	Edit/View
100012	Lopez, Josie	300.00	1500.00	1800.00	Edit/View
100013	Farala, Martha	300.00	1500.00	1800.00	Edit/View

Figure 6. Manage Tax and Deductions

Clicking the “Manage Tax and Deductions” will highlight it in red and show MotorPH’s employee list and their corresponding tax and deductions information in separate columns labeled as ‘Employee #’, ‘Employee Name’, ‘Tax Deductions’, ‘Other Deductions’, and ‘Total Deductions’ as shown in figure 6.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

MANAGE TAX AND DEDUCTIONS

Employee #	Employee Name	Tax Deductions	Other Deductions	Total Deductions	Action	
100001	Garcia, Manu	<div style="margin-bottom: 10px;">Employee Name: Garcia, Manuel III </div> <div style="margin-bottom: 10px;">Withholding Tax: <input style="width: 100px;" type="text" value="300.00"/></div> <div style="margin-bottom: 10px;">Monthly Contributions:</div> <div style="margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between;"> <div>SSS:</div> <input style="width: 100px;" type="text" value="500.00"/> </div> <div style="display: flex; justify-content: space-between;"> <div>PhilHealth:</div> <input style="width: 100px;" type="text" value="500.00"/> </div> <div style="display: flex; justify-content: space-between;"> <div>Pag-Ibig:</div> <input style="width: 100px;" type="text" value="500.00"/> </div> <div style="margin-top: 10px;">Loan Deductions:</div> <div style="display: flex; justify-content: space-between;"> <div>SSS:</div> <input style="width: 100px;" type="text" value="0.00"/> </div> <div style="display: flex; justify-content: space-between;"> <div>PhilHealth:</div> <input style="width: 100px;" type="text" value="0.00"/> </div> <div style="display: flex; justify-content: space-between;"> <div>Pag-Ibig:</div> <input style="width: 100px;" type="text" value="0.00"/> </div> <div style="text-align: center; margin-top: 10px;"> <div style="background-color: #333; color: white; padding: 5px 10px; border-radius: 5px;">Save Changes</div> </div> </div> <td>1800.00</td> <td>Edit/View</td>			1800.00	Edit/View
100002	Lim, Anton				1800.00	Edit/View
100003	Aquino, Bianca				1800.00	Edit/View
100004	Reyes, Isab				1800.00	Edit/View
100005	Hernandez, E				1800.00	Edit/View
100006	Villanueva, And				1800.00	Edit/View
100007	San Jose, B				1800.00	Edit/View
100008	Romualdez, A				1800.00	Edit/View
100009	Atienza, Ro				1800.00	Edit/View
100010	Alvaro, Rode				1800.00	Edit/View
100011	Salcedo, Ant				1800.00	Edit/View
100012	Lopez, Jos				1800.00	Edit/View
100013	Farala, Martha				1800.00	Edit/View

Figure 6.1. Manage Tax and Deductions - Edit/View Interface

Clicking the “**Edit/View**” button below the ‘Action’ label of an employee will summon an interface that will allow manual adjustment of an employee’s withholding tax, Monthly Contributions, and Total Deductions based on changing government mandated deductions as shown in figure 6.1. To start editing after summoning the interface, the employee has to click the pencil widget/button at the upper right corner. Doing so allows manipulation of the numbers in each box. After confirming that the numbers inputted are correct, click the “Save Changes” button below.

MOTORPH PAYROLL PORTAL

DASHBOARD

EMPLOYEE RECORDS

EMPLOYEE PAYROLL HISTORY

MANAGE TAX AND DEDUCTIONS

JOHN DOE
PAYROLL ADMIN

MANAGE TAX AND DEDUCTIONS

Employee #	Employee Name	Tax Deductions	Other Deductions	Total Deductions	Action	
100001	Garcia, Manu	<div style="margin-bottom: 10px;">Employee Name: Garcia, Manuel III </div> <div style="margin-bottom: 10px;">Withholding Tax: <input style="width: 100px;" type="text" value="300.00"/></div> <div style="margin-bottom: 10px;">Monthly Contributions:</div> <div style="margin-bottom: 10px;">SSS: <input style="width: 100px;" type="text" value="500.00"/></div> <div style="border: 1px solid #ccc; padding: 10px; margin-bottom: 10px;"> <input checked="" type="radio"/> Only apply to this employee <input type="radio"/> Apply changes to all <div style="text-align: center; margin-top: 5px;">Apply</div> </div> <div style="margin-bottom: 10px;">PhilHealth: <input style="width: 100px;" type="text" value="0.00"/></div> <div style="margin-bottom: 10px;">Pag-Ibig: <input style="width: 100px;" type="text" value="0.00"/></div> <div style="text-align: center;">Save Changes</div>			1800.00	Edit/View
100002	Lim, Anton				1800.00	Edit/View
100003	Aquino, Bianca				1800.00	Edit/View
100004	Reyes, Isab				1800.00	Edit/View
100005	Hernandez, E				1800.00	Edit/View
100006	Villanueva, And				1800.00	Edit/View
100007	San Jose, B				1800.00	Edit/View
100008	Romualdez, A				1800.00	Edit/View
100009	Atienza, Ro				1800.00	Edit/View
100010	Alvaro, Rode				1800.00	Edit/View
100011	Salcedo, Ant				1800.00	Edit/View
100012	Lopez, Jos				1800.00	Edit/View
100013	Farala, Martha				1800.00	Edit/View

Figure 6.2. Manage Tax and Deductions - Application of Changes

After clicking the “Save Changes” button, an option will appear where the employee can choose to ‘Only apply to this employee’ or ‘Apply changes to all’ as shown in figure 6.2. This option allows the employee making changes to save time and eliminate the probability of inputting erroneous numbers by individual editing of information but for mass changes. After choosing from one of the two options, the final step is clicking “Apply” and the changes will then be reflected and the interface will automatically disappear right after.



A college under Mapúa Malayan Colleges Laguna


Employee Portal

The login page for the Employee Portal has a background illustration of a woman in a yellow dress and a man in a white shirt, with a large rainbow arching over them. The text "THE FILIPINO'S CHOICE" is written across the rainbow. In the top left corner, the "MotorPH" logo is visible. A white login form is overlaid on the left side of the page, containing fields for "Username" (with a placeholder "SSO/Work Email") and "Password", and a "Sign In" button at the bottom right.

Clicking the “Employee Portal” button will lead to a similar login page as that for HR/Payroll staff but intended for the common employee as shown in figure 2. Employees must type down their username and password before clicking the “Sign in” button.



A college under Mapúa Malaysian Colleges Laguna



Employee Name:

Antonio Lim

Employee's Birthday:

06/19/1988

Employee ID:

100002

Contact Number:

171-867-411

Position:

Chief Operating Officer

Address:

San Antonio De Padua 2, Block 1 Lot 8 and 2, Dasmarinas, Cavite

SSS #

52-2061274-9

Philhealth #

331735846338

TIN #

683-102-776-000

Pag-Ibig #

663904995411

PAYROLL HISTORY

#	Date
1	02/01/2024
2	02/08/2024
3	02/15/2024
4	02/22/2024
5	03/01/2024
6	03/08/2024
7	03/15/2024

Figure 7. Employee Portal

If user credentials are successfully authenticated in the Login page, employees should be directed to their Employee Portal as shown in Figure 7. In this portal, their picture can be seen on the upper left and to the right of that, information such as their 'Employee Name', 'Employee ID', 'Position', 'Employee's Birthday', 'Contact Number', and 'Address' can be seen. Directly below those information is their 'SSS #', 'PhilHealth', 'TIN #', and 'Pag-Ibig #'.



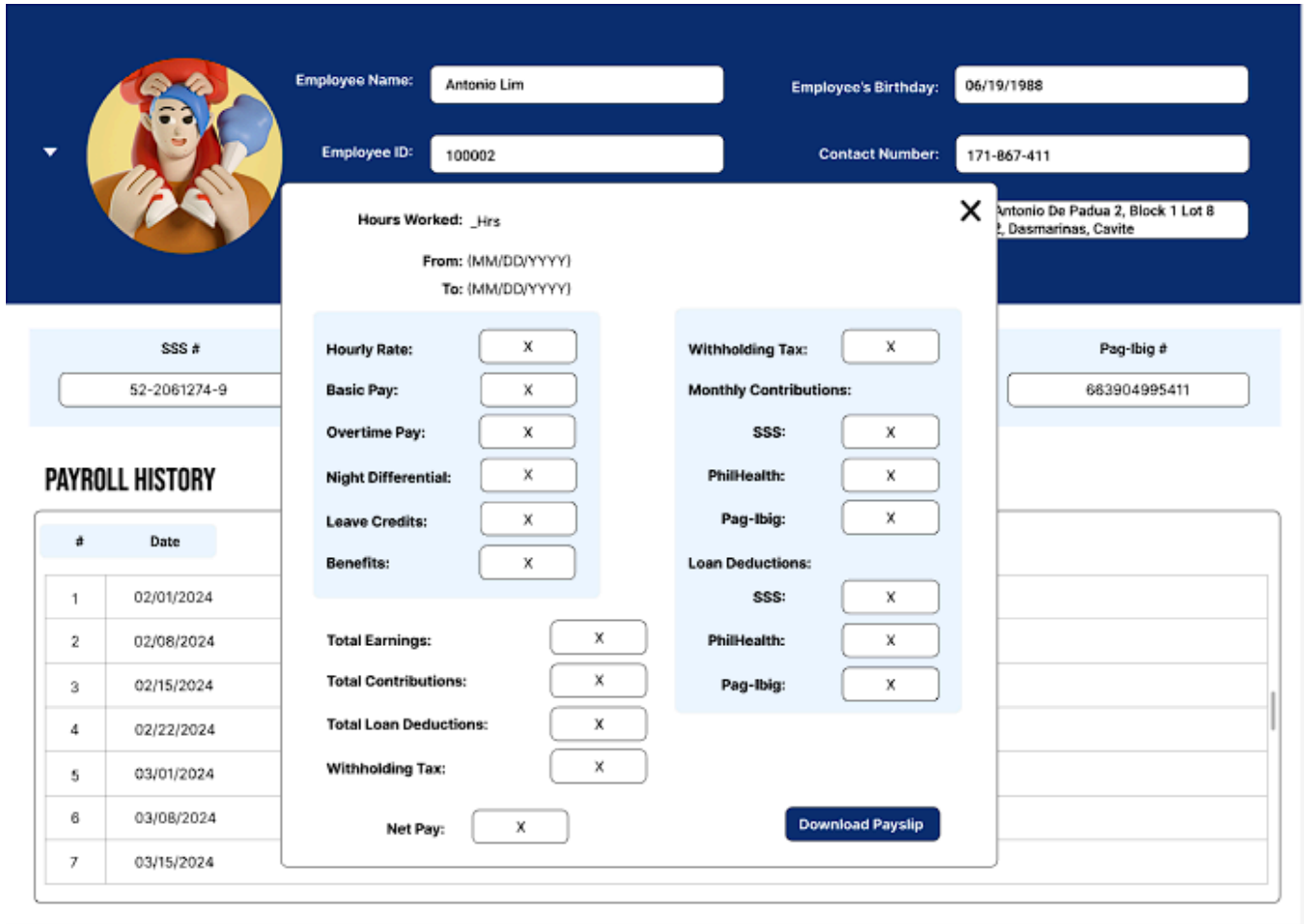
A college under Mapúa Malayan Colleges Laguna

A screenshot of an employee portal interface. At the top left is a circular profile picture of a woman with a white triangle overlay containing three buttons: "Change Password", "Report Issue", and "Logout". To the right of the profile picture are input fields for "Employee Name" (Antonio Lim), "Employee ID" (100002), "Position" (Chief Operating Officer), "Employee's Birthday" (06/19/1988), "Contact Number" (171-867-411), and "Address" (San Antonio De Padua 2, Block 1 Lot 8 and 2, Dasmarinas, Cavite). Below these fields are four boxes for "SSS #", "Philhealth #", "TIN #", and "Pag-Ibig #". At the bottom is a "PAYROLL HISTORY" section with a table showing 7 entries with columns for "#", "Date", and a description field.

Figure 7.1. Employee Portal - Change Password, Report Issue, Logout

The white triangle at the left side of the employee's picture is a button that when clicked, allows the employee to change their password, report an issue, and log out from the portal. The buttons of the aforementioned functions are as follows: "Change Password", "Report Issue", and "Logout" as seen in figure 7.1.

The lower half of the employee portal is the employee's payroll history presented as a list and labeled correspondingly by the end date of their payroll.



The interface shows an employee profile for Antonio Lim (ID: 100002, Birthday: 06/19/1988, Contact: 171-867-411). A modal window for payroll calculation is open, displaying a table of payroll history and a summary of earnings and deductions.

Payroll History Table:

#	Date
1	02/01/2024
2	02/08/2024
3	02/15/2024
4	02/22/2024
5	03/01/2024
6	03/08/2024
7	03/15/2024

Payroll Summary (Modal Window):

Hours Worked: Hrs

From: (MM/DD/YYYY) To: (MM/DD/YYYY)

Earnings:

- Hourly Rate: X
- Basic Pay: X
- Overtime Pay: X
- Night Differential: X
- Leave Credits: X
- Benefits: X
- Total Earnings: X

Deductions:

- Withholding Tax: X
- Monthly Contributions:
 - SSS: X
 - PhilHealth: X
 - Pag-Ibig: X
- Loan Deductions:
 - SSS: X
 - PhilHealth: X
 - Pag-Ibig: X
- Total Loan Deductions: X
- Withholding Tax: X
- Net Pay: X

[Download Payslip](#)

Figure 8. Employee Portal - Payroll Interface

Selecting a specific date from the list will summon the payroll interface as shown in figure 8. The following information can be seen from the interface:

- Hours Worked
- From and To (specifies the duration calculated)
- Hourly Rate
- Basic Pay
- Overtime Pay
- Night Differential
- Leave Credits
- Withholding Tax



A college under Mapúa Malayan Colleges Laguna

- Monthly Contributions (SSS, PhilHealth, Pag-Ibig)
- Loan Deductions (SSS, PhilHealth, Pag-Ibig)
- Total Earnings
- Total Contributions
- Total Loan Deductions
- Net Pay

If needed, the employee can download and print the payslip by clicking the “Download Payslip” button at the lower right corner of the interface. Lastly, exiting the interface is as easy as clicking the “X” button at the upper right corner as shown in figure 8.