Perpetual Help College of Pangasinan
Montemayor St., Malasiqui Pangasinan

COLLEGE OF COMPUTER STUDIES

RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM

A Capstone Project
Presented to the Faculty of the
College of Computer Studies
Perpetual Help College of Pangasinan

In Partial Fulfillment of the
Requirements for the Degree of
Bachelor of Science in Information Technology (BSIT)

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EXECUTIVE SUMMARY

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This study aims to develop a payroll management system with time tracking to accurately record employee working hours and ensure proper compensation. Due to time constraints, the Agile Model was utilized for faster software development, and various fact-finding techniques such as interviews and observations were used to analyze, design, develop, and evaluate system requirements. Use Case, Activity, and Class Diagrams were used to describe system functions, while SQL SERVER Database and Visual Studio were utilized for software development.

The proposed system was evaluated based on ISO 25010 standards, with end-users assessing the efficiency of the system. Compatibility and Security were the top-ranked criteria, followed by Functional Suitability, Performance Efficiency, Usability, Reliability, and Maintainability. The system met all functional requirements, including the time tracking feature. It is highly recommended for implementation in Reload Media Company, which needs effective and efficient authorization tools.

Several enhancements were recommended by the staff, including the ability to remotely authorize the system for maintenance purposes across multiple workplaces, displaying time log records in a single row within the database for easier navigation, and adding a feature to record a history log for lost time track accounts. Overall, the proposed system provides an effective solution to accurately record employee working hours and ensure proper compensation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter I

INTRODUCTION

1.1 Project Context

Payroll management is an essential aspect of any organization's operations. It involves tracking and managing employee time and compensation, which is crucial for ensuring accurate payment and compliance with labor laws. In the past, these functions were performed manually, which was time-consuming and prone to errors. However, with the advent of technology, organizations can now automate payroll management and streamline the process.

Time and attendance management is the foundation of payroll management. It involves recording the time employees spend at work, including clocking in and out, breaks, and time off. In the past, this was done using physical timecards or paper-based systems. However, today, most organizations use electronic systems that automate time and attendance management. These systems are more efficient and accurate, and they reduce the risk of errors associated with manual processes.

Automated payroll management systems offer several advantages over manual processes. They can help reduce administrative costs and time spent on payroll management. They can also help reduce errors and increase accuracy in calculating employee compensation. Automated systems can also help organizations comply with labor laws and regulations, which can help avoid costly fines and legal issues.

In addition to time and attendance management, automated payroll management systems can also handle other aspects of payroll, such as calculating employee taxes and deductions, managing benefits and allowances, and generating pay stubs and other necessary documents. These systems can also generate reports on employee compensation and other payroll-related data, which can help organizations make informed decisions about staffing and other HR-related matters.

One of the key benefits of using an automated payroll management system is increased security. Automated systems store employee data and payroll information in secure databases that are protected by encryption and other security measures. This can help prevent unauthorized access to sensitive information, such as employee social security numbers, bank account details, and other confidential data.

Another benefit of automated payroll management systems is the ability to customize them to meet the specific needs of an organization.

1. Input salary rate - Admin can input the salary rate of the employee to view their rate.

2. Input user details - Administrators can enter user information.

3. Monthly total - The admin and users can see the total of their time and salary.

4. Screenshot - The screenshot shows that it took a picture while working to prove that they were working.

5. Time in time out - Our system will record their time in/out when they log in or out of their work.

1.2 Purpose and Description

The purpose of this project is to develop a system that can assist both employers and online workers in managing their time and payroll more efficiently. The Payroll Management with Time Tracker System is designed to automate payroll computations and track the time-in and time-out of employees, ensuring that they are paid accurately and on time. Consistently paying employees on time can have a positive impact on their morale, foster trust, increase accountability, and maintain team morale.

By automating the payroll process and time tracking, the system can reduce the manual effort required for calculating salaries, ensuring greater accuracy and minimizing the risk of errors. This can improve the overall efficiency of the organization, resulting in more effective utilization of resources and time. Additionally, the Payroll Management with Time Tracker System offers a user-friendly interface that allows multiple users to access and update data as needed. The system can keep track of employee data, including their pay, allowances, deductions, and taxes, ensuring that accurate records are maintained each month.

Overall, the Payroll Management with Time Tracker System can provide significant benefits to organizations by streamlining the payroll process, improving efficiency, and maintaining accurate records. The system is user-friendly, easy to implement, and can be customized to meet the specific needs of an organization. By adopting this approach, organizations can free up valuable resources, reduce errors, and maintain a positive work environment for their employees.

1.3 Objectives of the Study

Having an accurate count of employee hours enables you to manage what is likely your organization's largest expense: payroll. Tracking employee working hours in a retail or manufacturing setting, time and attendance tracking impacts the accuracy of your entire payroll function.

Using paper time and attendance records or a system that doesn't integrate with payroll requires manual inputs and leads to a greater chance of error. Alternatively, when you connect your time-tracking and payroll systems, you not only deliver the correct compensation to employees, but you also access deeper insights into the productivity of your workforce.

Time tracking and payroll go hand in hand, and the systems you use to manage them should too. By connecting the systems, you automate two related processes, saving both time and money.

A connected time-tracking and payroll system allows you to seamlessly convert employee work time to accurate paychecks. As a result, you avoid underpaying or overpaying for employee work time, and you can also stay in compliance with internal policy and legal requirements for overtime and vacation pay. Connecting the two systems allows you to track the following: time, attendance, and payroll.

1. To create a system that automatically counts time.
2. To create a system that automatically calculates employees' salaries.
3. To provide a screenshot that demonstrates whether an employee is working.

4. To increase accountability among employees and maintain team morale.

1.4 Scope and Delimitation

This is a system designed to improve or create a computerized payroll system for employees, which includes various functions such as adding, editing, deleting, and updating employee information, along with their weekly salary, rate per hour, overtime, and a log-in and log-out process for security purposes. The system incorporates a time tracker to record the number of hours worked by employees, ensuring accurate payment. A computer database is utilized to store all the specifications of each computer, allowing users to view relevant information about its features. The system administrator has the ability to oversee users' log-in and log-out activity and can add new features to a particular computer and save them to the system's database.

The system is not equipped to generate employee appraisal and evaluation reports since this feature is not part of the proposed enhancement for the computerized payroll system. Additionally, the study solely focuses on improving the time tracker aspect of the system and restricts access to authorized users. Network topology implementation, online programs, and online transactions are not supported by this proposed system.

1.5 Significance of the Study

The goal of this study is to enhance the payroll system for employees to provide better service and reduce errors. The proposed system is expected to benefit various stakeholders, especially accountants who can retrieve and update employee records quickly. The system will facilitate better service and enable employers to track employee performance.

Smaller businesses usually manage their payroll systems in a manner similar to larger organizations. The payroll system specifies the payment frequency (weekly, biweekly, monthly), payment methods (manual checks or direct deposit), benefit deductions, and work requirements for salary or overtime employees. Business owners establish policies to ensure that employees understand the payroll process. Payroll systems enable business owners to create an easy-to-use system that meets their specific requirements.

The following entities will benefit in the success of this study and to the deployment of the proposed system:

1. **Reload Media**: The Payroll Management with Time Tracker System will benefit Reload Media by providing an efficient and accurate system for managing their employees' payroll and time-tracking. This will save time and reduce errors, resulting in a more streamlined and effective process.
2. **Human Resource Personnel**: The system will benefit Human Resource personnel by providing an automated system that will streamline the payroll process, reduce errors, and allow for easy tracking of employee time and attendance. This will save time and improve accuracy, resulting in a more efficient and effective HR department.
3. **The Proponents**: The proponents of the system will benefit from the knowledge and skills gained from the development of the Payroll Management with Time Tracker System. They will also benefit from the potential to earn revenue from the sale and implementation of the system.

4. **The Future Researchers**: Future researchers in the field of payroll management and time tracking will benefit from the insights and knowledge gained from this study. The system can serve as a reference for future research on similar topics, and the proposed system's limitations and future enhancements can be explored in future studies.

Chapter II

REVIEW OF RELATED LITERATURE

2.1 Related Studies and Literature

An automated payroll system is a highly valuable tool that allows organizations to manage their payroll and employee compensation processes with greater accuracy, efficiency, and effectiveness. Such systems can help ensure that employees are paid on time and accurately, thereby promoting job satisfaction and morale, while also helping organizations comply with relevant labor laws and regulations.

Research studies have consistently shown the numerous benefits of using automated payroll systems. For instance, the reduction of manual processes can help save significant time and effort, companies that adopted automated payroll systems were able to reduce payroll processing costs by up to 80%, while also improving accuracy and reducing errors.

Furthermore, by automating payroll management, organizations can more efficiently process paychecks, manage deductions and benefits, and maintain accurate records, thereby saving time and reducing administrative costs. Additionally, automated systems can help organizations avoid costly penalties and fines associated with non-compliance with labor laws and regulations.

However, with the rise of remote work, it can be challenging to track employee activities and ensure that accurate time records are kept. As such, some automated payroll systems have been designed to include features such as automated pausing of time tracking

when an employee is AFK (Away from Keyboard), and screen capture monitoring to help bridge this gap and ensure accurate time tracking.

Overall, the benefits of using automated payroll systems are clear. They can help organizations optimize employee performance, save time and money, and ensure compliance with labor laws and regulations, even in the face of remote work challenges.

Foreign

The payroll system implemented by Arjun V. Singh, Siddesh V. Chaphekar, and Yogesh S. Sawant is a desktop-based system, which is developed in VB.net as frontend and Microsoft Access 2007 SQL server 2008 as backend. The base of the planned system is a database, which stores all information pertinent to personnel allowances, deductions, taxes, and net pay. Features of the planned system are: Importing attendance from Biometric machine, sending details regarding salary and attendance before finalizing salary, Faculty Management, Overtime Calculation, through mail sending salary slips, HRD programs like offer letter, appointment letter, promotion letter etc., Faculty Birthday notification, generate annual profit-loss of college by using graphs. The payroll system implemented by Kritika Mahajan, Shilpa Shukla, Nitasha Soni is a desktop-based system, which is developed in HTML, CSS and JQuery as frontend, C#, ASP.net is used for backend and for data parsing, JSON and Ajax is used. The software for payroll management system service on the cloud is provided as a solution in this paper. Multiple user data access is provided by the system. Features of this system Leave and Payroll Management System International conference on computing and virtualization (ICCCV-17) 63 | Page Thakur College of Engineering and Technology are: As automatic or

computerized calculations are done errors are reduced, more efficient as less time is required, costs related with accounting software include coaching and program maintenance, Expenses can add up fast with costs for printers, paper, ink and other supplies. The system proposed by Poonamdeep Kaur, Dr. Dinesh Grover aims to explain in simple terms what payroll involves and demystifies the process of payroll. Moreover, it is a powerful tool to streamline the data access for multiple users. As per rights allocated from adding new employees to generate pay slips with clear step by step instructions each user walks through these entire payroll processes. Furthermore, the system is flexible to implement changes in pay scales.

Sonal et al (2016), worked on Employee Tracking and Monitoring System Using Android. In their study they provided different security profiles on the same smartphone. They used a dynamic database utility which retrieves data or information from a centralized database. They provide a separate mode to employees when they enter company premises. Through smart phones all information about the employee phone like their SMS history, Incoming calls, Outgoing calls, Employee Locations, Data usage, Web browser history, and Unauthorized Call History details are tracked. The necessary condition is that Employees should have the Android phone whereas Manager Activities are also monitored.

Aparna, (2013), worked on Smartphone Monitoring System, The System is a software that allows supervisors to monitor their employee's office cell phone. All incoming call details, outgoing call details, text details, emails and multimedia messages can be seen and interrupted by the managers, who can also monitor where their employees are, access a history of where they have been and set up alerts if their employees are going outside of

the approved geographical zones, are receiving texts from unapproved numbers or calls from banned persons. The system helps managers to monitor their employees through mobile phones. It enables organizations to avoid the unnecessary involvement by the employees by monitoring their mobile phone usage and also by tracking their current location.

Local

Several investigations on time management were done to discover a person's effectiveness and influence on their work; however, we can find very limited literature regarding work scholars' time management. Robbins and Coulter (2009) discussed that management involves coordinating and overseeing the work activities with others so that their activities are completed efficiently and effectively. It is a mere fact that management ensures the work activities to be completed by the people responsible for doing them. They also added that to be efficient in one's work is to do things right that is not wasting resources. To be effective, on the other hand is to do the right things, that is doing those work activities that will help the organization reach its goals.

Moreover, Lorenzana (2006) points out that management is a process which refers to a systematic way of doing things. She also asserts that it utilizes resources efficiently, gets things done through and with others, and achieves a stated goal.

In the study of Suryanarayana, Raju, Himabindu, and Alekhya (2010) they said that "women undertake most (two thirds) of the work but only receive one tenth of the total income rather than men. They added that women constitute more than 50% of the population".

Though there are more women than men, the paper of Helfat, Harris, and Wolfson (2006) suggests that there is a slow increase in the percentage of women Chief Executive Officers (CEOs). Their assessment suggests that perhaps 6 percent of CEOs in the place of their study will be women by 2016.

Time management refers to numerous techniques and skills that can help a person to make use of the available time in the most efficient way and to accomplish goals, tasks and projects within the predetermined period of time. Time management skills vary from, but are not limited to, prioritizing tasks, planning, scheduling, organizing and the delegation of functions. However, it also includes an analysis of the time spent for different activities as well as close monitoring that allows one to improve his time management skills. According to Hisrich et al. (2002), "time is a unique quantity, an entrepreneur (manager) cannot store it, rent it, and buy it. Everything requires it and it passes at the same rate for everyone. Effective time management is the investment of time in such a way Time Management Employee Engagement Delegation Empowerment Accountability Efficiency Prioritization Scheduling of task Scale of preference goal attainment Employee efficacy Work performance Competence Work environment Employee Absorption Persistence Concentration Immersion.

During the last two decades, there has been a growing recognition of the importance of time in the organizational literature. According to Orlikowski and Yates (2002), the temporal dimension of work has become more important because of expanding global competition and increased demands for immediate availability of products and services. Time management as a behavior aims to achieve the economical use of time and should be

related to certain purposeful activities. This definition highlights that the use of time is not an aim in itself and cannot be pursued as a sole factor. Most targets are on some purposeful activity, like performing a small task or a tutorial duty that is assigned in way which means an economical use of time (Claessens & Eerde, 2007). Claessens (2004) defined time management as behaviors that aim at achieving a cost-effective and effective use of time, and he added that these behaviors have three major components. First component is awareness of past, present and future according to Kaufman, Lane, and Lindquist (1991), and the recognition of one's time use (attitudes, cognitions of time), that help complete tasks and responsibilities that match the limit of one's capabilities.

A growing literature analyzes working from home policies. At the start of the pandemic, a few papers predicted the likelihood that a job would shift from WFO to WFH, typically using descriptions of occupations in classifications such as O*NET (e.g., Dingel and Neiman, 2020; Adams-Prassl et al., 2020). The industry and occupations analyzed here are among those predicted most likely to effectively switch to WFH. Several surveys document incidence of WFH, and perceptions of its effects (Bick et al., 2020; Brynjolfsson et al., 2020; Von Gaudecker et al., 2020; Gottlieb et al., 2021; Hensvik et al., 2020). Professionals, managers, knowledge workers, those in clerical support or data processing, and those with higher education or income make more use of WFH. In the UK Household Longitudinal Survey, employees who work from home state that they are about as productive as in the office (Etheridge et al., 2020). Those who perceive declines also experience lower levels of well-being from WFH. Bellmann and H¨ubler (2020) find that working remotely has no long-run effect on work-life balance, and that a switch to WFH

increases job satisfaction only temporarily. Barrero et al. (2020) estimate that WFH reduced total commuting time among US workers by more than 60 million hours per workday at the height of the pandemic, and that about 35% of this time saved was reallocated to work. We do not find that commute time predicts increases in WFH work hours. Barrero et al. (2021) provide evidence from waves of a large panel of US employees working from home. Respondents report benefits from lower commute time, more flexible work hours, and increased productivity. Employers have made investments in technology, revised practices, and moved up the learning curve with respect to WFH. They suggest that use of WFH will remain four times more prevalent than before the pandemic. DeFilippis et al. (2020) use communication and email meta-data. Their estimate that WFH employees work 0.8 more hours per day is between estimates from our two-time measures. They also 4 find that employees attend more meetings, with more attendees. Teevan et al. (2020) present similar evidence for Microsoft employees. Kwan (2021) analyzes reading of Internet content by employees in a very large sample of firms in ten countries. He uses IP addresses to identify when employees WFH and creates proxies for employee interactions and need for coordination. These proxies are negatively associated with a shift to WFH.

This tracking and tracing system is considered as industrial norms to provide customer services which consequently trigger competitive advantage for the logistics service providers (LSPs) too. The demand for logistics network tracking and tracing of items has been long since recognized by the individual industries. The academic communities along with standardization organizations are also actively looking forward in efforts to develop global identification methods for items or products. The standard procedures developed so

far are mainly concerned with identification of items and as such, do not directly define any connection to product tracking systems. The complexity of the logistics chains in global industry has meant an increasing interest in improving their manageability. Due to the diversity of product variants together with the necessity to improve on product traceability, a lot of information about the items is needed.

2.2 Technical Background

An applicant tracking system is a software designed to streamline the process of hiring and pre-screening candidates for open positions. It functions by scanning resumes and job applications for relevant information and matching it with the job requirements specified by the employer. This system is essential for large organizations that receive a high volume of job applications, as it allows them to quickly filter out unqualified candidates and focus on the most promising ones.

The management system for employee pay involves a variety of tasks related to ensuring that workers are paid accurately and on time. This includes tracking hours worked, calculating taxes and benefits, withholding payments, and processing payroll deductions. Depending on the company, other deductions may also be calculated, such as retirement contributions or healthcare premiums. Additionally, contractor payments may also be handled through the payroll system.

The specific duties involved in payroll administration can vary depending on the organization's unique needs. For example, some companies may have employees who receive commissions or bonuses, which would need to be factored into their paychecks. In addition, the payroll technician may need to calculate overtime pay, assign exempt or non-

exempt status to workers, and adhere to relevant employment laws. Resolving issues related to payroll, such as incorrect payments or tax filing errors, is also a crucial part of the payroll technician's job.

Payroll technicians are responsible for ensuring that employee pay is accurate and that all withholdings are properly processed. This involves a range of tasks, from maintaining payroll records to submitting tax paperwork and forms. They must be detail-oriented and have strong organizational skills, as they are handling sensitive and confidential information. They must also be proficient in computer software and data entry, and possess a working knowledge of labor laws and regulations.

To pursue a career as a payroll technician, candidates typically need a background in bookkeeping, accounting, or business office procedures. Some employers may prefer candidates who are certified payroll professionals or have an associate's or bachelor's degree. A certificate in payroll administration or bookkeeping can also be advantageous in obtaining this role.

2.3 Definition of Terms

Admin. Refers to the department responsible for managing and coordinating the activities of a business or organization.

Company. A legal entity formed by a group of individuals with the aim of conducting a commercial or industrial enterprise.

Password. A password is a basic security measure that typically consists of 8 to 10 characters, including numbers and special characters, selected by the user.

Payroll automation. The process of optimizing payroll processing tasks by using an automated system to increase efficiency.

Screenshot. A digital image of a computer screen captured by software, which can be saved as a graphics file.

Time Tracking. The practice of accurately recording the number of hours worked by employees to ensure proper compensation, particularly for hourly employees such as contractors and freelancers.

User Profile. A customized working environment on a computer that contains all of a user's data and can be configured by a network administrator.

Chapter III

DESIGN AND METHODOLOGY

3.1 Research Methodology and Design

The researcher opted for a quantitative research design to assess the professionalism of individual employees and determine whether there is a noticeable distinction between those who work online versus part-time. Prior to commencing the research, the researcher obtained permission from their research teacher to select a study topic. The research process involved utilizing two sets of checklist questionnaires, including an employee questionnaire checklist with a sample size of fifteen (15) office workers. The researchers used various statistical methods such as Percentage, Weighted Mean (WM), Mean (M), and Standard Deviation (SD) to measure the responses of the participants. Additionally, the researchers employed a t-test for Independent Sample (Separate Variance) to identify any significant differences between self-evaluation and immediate evaluation levels among the employees.

3.2 System Development Methodology

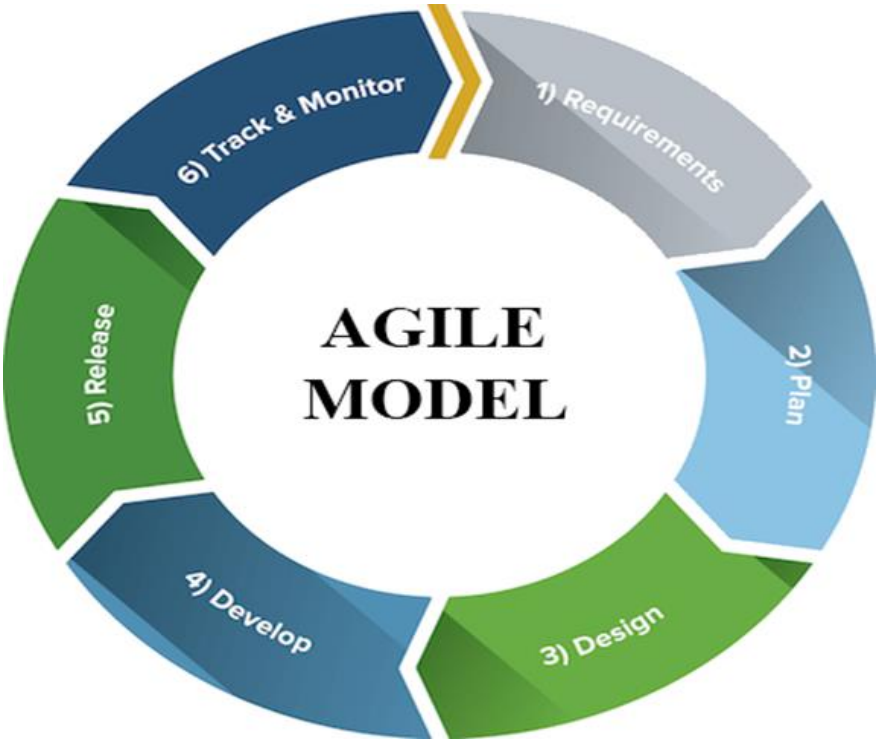

Figure 3.1 –System Development Strategies

The agile software development life cycle is a flexible and iterative approach to software development that emphasizes collaboration, adaptability, and continuous improvement. This approach allows for quick feedback and adjustments, resulting in a better end product that meets the client's requirements and expectations.

In the agile model, the pilot area is the first point of reference for the project's development. The development team creates a prototype that aligns with the pilot area's requirements and preferences. The feedback from the pilot area is taken into consideration, and the developers fine-tune the system until it meets their satisfaction. This process

ensures that the final product aligns with the pilot area's requirements, increasing its chances of success.

The testing phase is essential in the agile model. During this phase, the customer or pilot area tests the system and provides feedback. The developers then use this feedback to make improvements and address any issues. This process ensures that the final product meets the customer's expectations and performs as expected.

Overall, the agile software development life cycle provides a flexible and adaptive approach to software development, resulting in a better end product. It emphasizes collaboration between the development team and the customer, leading to increased accountability and better communication.

3.2.1. Requirement Analysis

Requirements are legitimately related to the performance characteristics of the system being structured. It is the stated needs that may resolve the problem in the pilot area and provide objectives for the system. It is related to how well the system will work in its intended environment. Requirements are the essential concentration in the system since its main role is to change the requirements into plans. The requirements are categorized according to the needs of the system. The following are the requirements for the system:

1. **Data Requirements.** Data requirements are the data needed to validate the quality of the system

2. **Hardware Requirements**. Hardware requirements is the hardware used in the system.

3. **Software Requirements.** Software requirements are the software used in the system. **Requirement Documentation**

This section is the requirement documentation, wherein the requirements are elaborated and discussed. The following are the software requirements, hardware requirements, and data requirements:

3.2.2.1 Software Requirements

Category	Specification
OS	Windows 11
Application	Microsoft Visual Studio 2022
Database	MySql

Table 3.1 – Software Requirement

Table 3.1 represents the software that is required during the development of the project. Were

1. We will need the minimum operating system to run the software.
2. The Application that will be used in creating the standalone application.
3. The database that will be required to store data.

3.2.2.2 Hardware Requirements

Hardware Specification		
Name	**Specification**	**Recommended**
Processor	Celeron and AMD Ryzen 3	Core i5 and AMD Ryzen 5
RAM	4GB	8GB
Hard Disk	50GB	1TB
Video Card	500MB	2GB

Table 3.2 – Hardware Requirement

The important specifications of a computer include the processor speed, model, and manufacturer. The speed of a processor is usually measured in gigahertz (GHz) and the higher the number, the faster the computer. Another essential specification is the Random Access Memory (RAM), which is indicated in gigabytes (GB) and determines the computer's ability to handle multiple tasks simultaneously. The hard disk space, also known as ROM, is indicated in gigabytes (GB) and refers to the amount of data that can be stored in the computer, such as documents, music, and other files. Additional specifications can include the type of network adapter (Ethernet or Wi-Fi) and audio and video capabilities.

3.2.2.3 Data

Category	Specification
Preliminary Survey	Preliminary Survey is conducted at the start of the project. It is used to collect sufficient information from different sources to prepare a plan.
ISO 25010 Final Survey	ISO 25010 Final Survey is conducted after the system is already finished. It is the basis if the system is already working properly and ready for deployment.

Table 3.3 – Data Requirement

Table 3.3 represents the data that are needed to be accumulated because the information that will be coming from here will be essential in the development of the project.

3.2.3 Design of Software

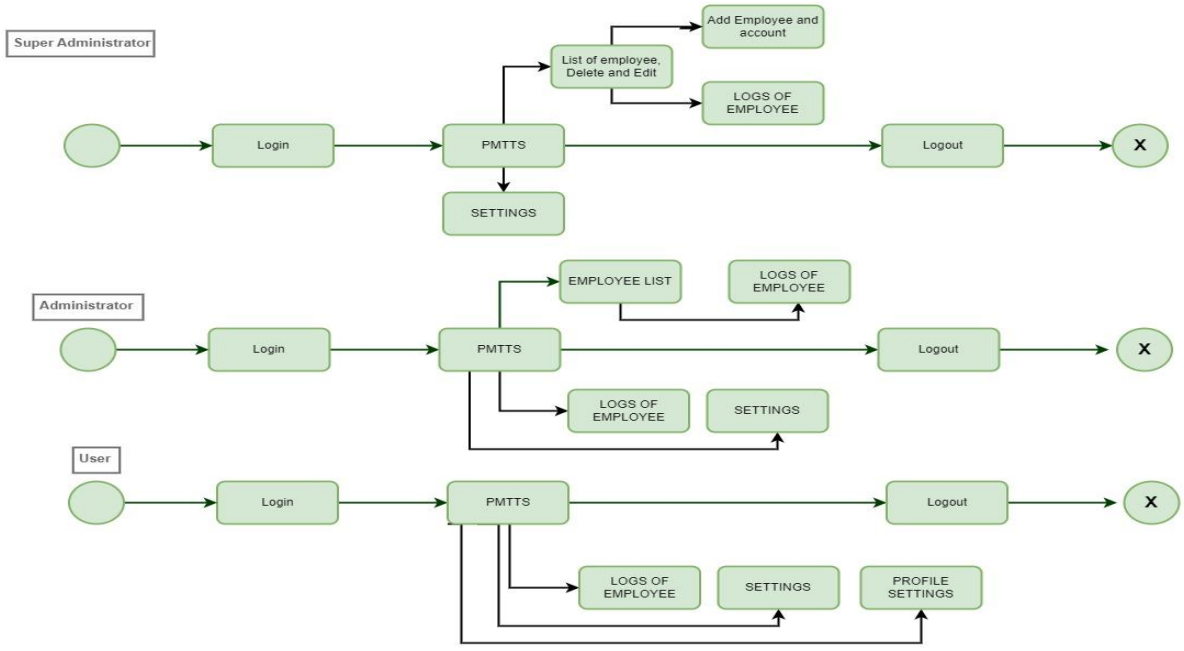

Figure 3.2–Activity Diagram

Figure 3.2 presents the procedure for the Payroll Management Time Tracker (PMTT) system. After entering their username and password for their user profile, the login time is recorded in the database. Once work begins, the user can initiate the time tracking feature by clicking on the 'start' button, which automatically estimates their hourly rate and captures periodic screenshots. The system administrator is exclusively authorized to add or delete information in the PMTT system, while the user can only access their time logs and associated screenshots. The PMTT system is an indispensable tool for ensuring efficient and precise payroll management.

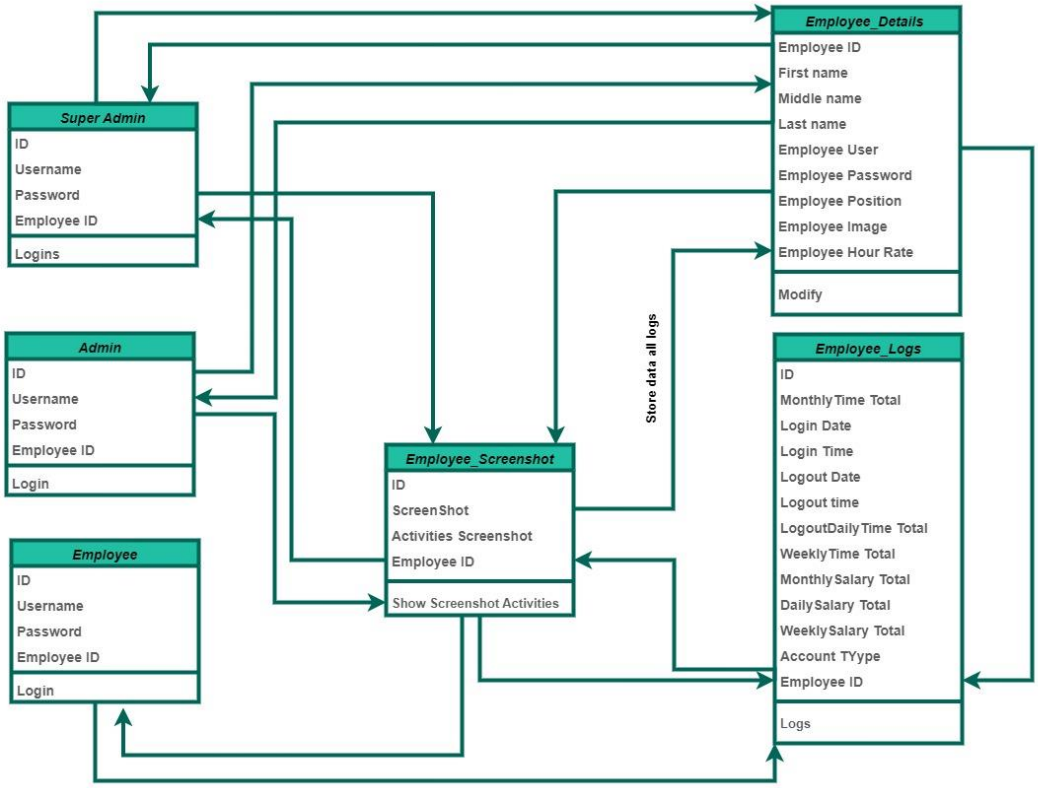

Figure 3.3–Class Diagram

Figure 3.3, the administrator, and user will be the one to have access to the database to view the time and activities of the users. The admin will also have an account with a Username and Password to view the data. User information will be gathered and stored inside the database automatically when they log in with their user and password onto the login tab to access their PMTT system.

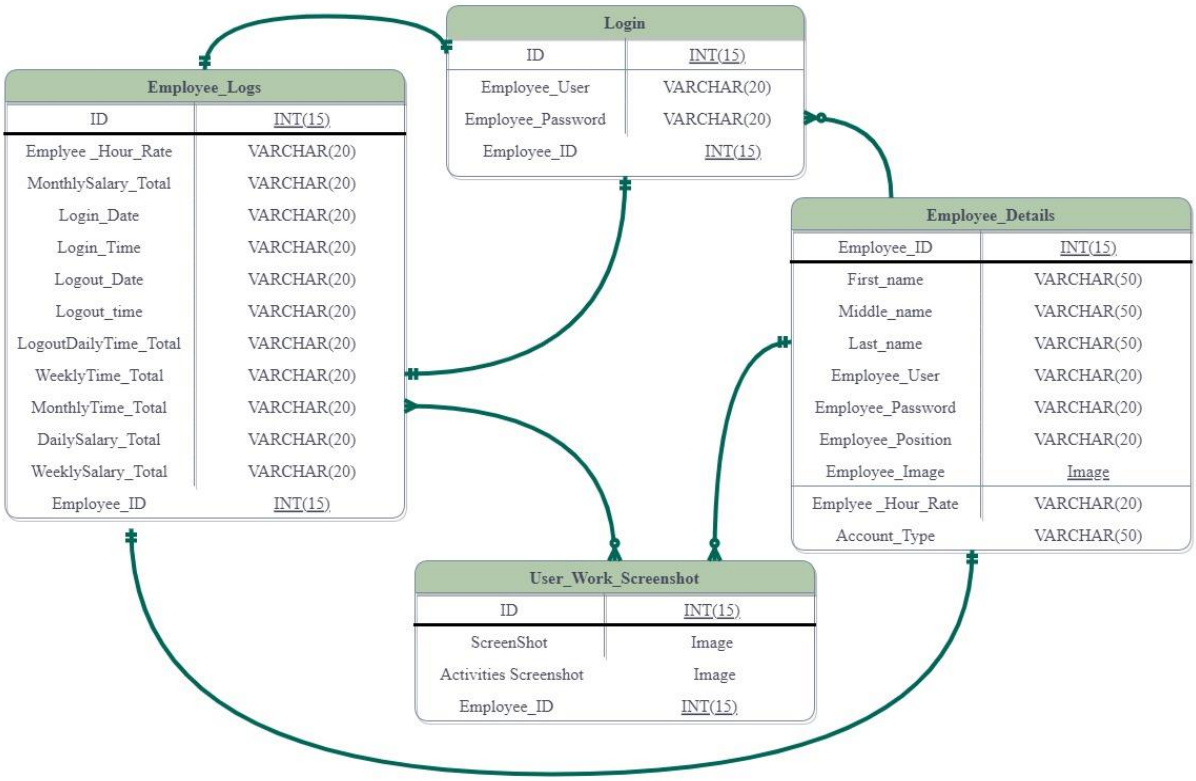

Figure 3.4–Database Schema

Figure 3.4 in the above schema, it will show how the database structure functions for the proposed project. It will also show you how tables interact with each other and the data types for each piece of information that is needed in the process.

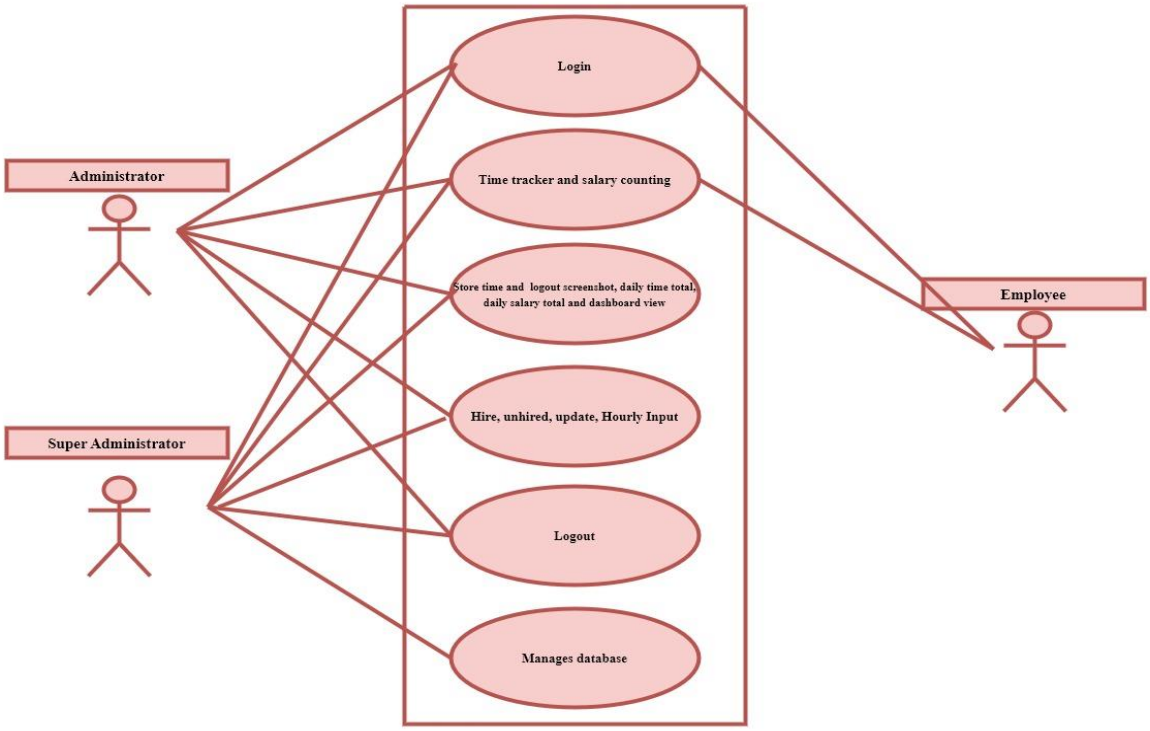

Figure 3.5–Use Case Diagram

Figure 3.5 shows the list of activities and functionality of the user and admin that can be used in the system. When a user or admin enters in, the profile will load while their login data is automatically stored and monitored by the administrator. They almost have the same accessibility, but only the admin can add new users, delete, and add the hourly rate of the employee.

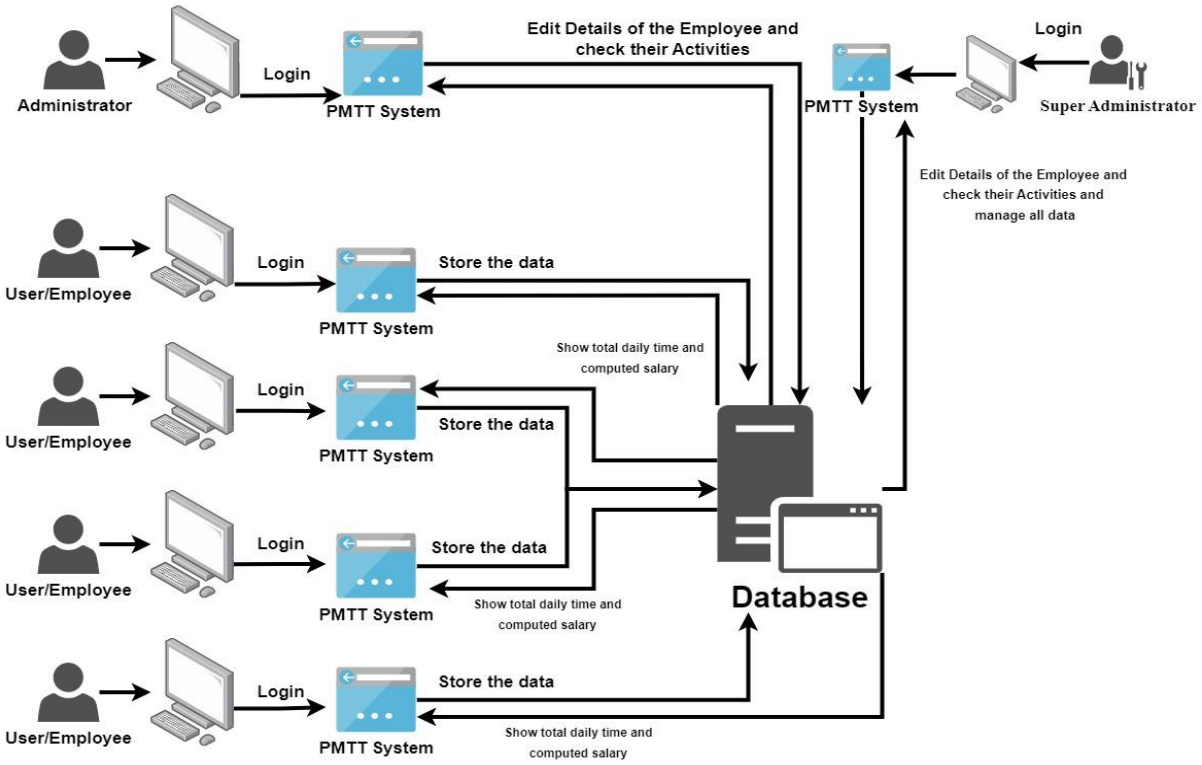

Figure 3.6 –System Architecture

Figure 3.6 shows that the user and the admin go through the same process to access the computer. They need to log in to the PMTT system access to track the time and Daily time record. The data such as login time, date, username, total time, hourly salary total, and activity will be stored in a database. The only one who can edit the employee details and data stored in the database is the admin. Users can monitor their time and hourly salary total too.

3.2.4 Development and Testing

The system development life cycle (SDLC) for this project utilized an agile methodology, as depicted in Figure 3.1. The SDLC consists of six phases: requirements, planning, design, development, testing, and implementation. During the requirements phase, the researchers identified the problem and requirements present in the pilot area. In the planning phase, solutions were proposed to address the identified issues. The design phase involved creating the solution design, while the development phase focused on building a prototype based on the design. The testing phase involved rigorous testing of the prototype. Finally, in the implementation phase, the system was deployed and made available for use in the pilot area.

To evaluate the system's effectiveness, the researchers employed the ISO 25010 evaluation tool to ensure that the system met the required standards. The system was developed and tested within the researchers' area, and upon successful completion of the evaluation process, it is expected to be deployed to all online workers of Reload Media PTE LTD.

3.2.5 Description of the Prototype

The prototype consists of an admin user who has authorization to manage online workers' user accounts from the database system. Such systems play a vital role in monitoring activities and ensuring border security. The prototype is designed to encourage the use of mobile devices and presents a dataflow design methodology that facilitates efficient experimentation with crucial aspects of the tracking system. The prototype is more secure than the traditional method of remembering passwords and entering login details to

access the system. Documentation of the prototype is not necessary until it becomes functional. The use of high-level programming languages in prototype development results in easily understandable source code and requires less system documentation.

3.2.6 Implementation Plan

The PMTTS system is designed to streamline and simplify the process of tracking work hours and calculating salary rates for users. By automating these tasks, it helps users save time and ensures that they are paid accurately for the work they have done. Before the system can be implemented, a feasibility study will be conducted to assess its viability and determine whether it meets the needs of the users.

Once the system has been developed, a website will be created to provide users with easy access to download the software. The website will also be designed to meet the users' other requirements and provide them with a user-friendly experience. Once users have downloaded the system, they can log in to their provided accounts and start tracking their time. The system will automatically calculate the partial pay based on the logged hours, which helps users keep track of their earnings and ensures that they are compensated fairly.

Overall, the PMTTS system provides a valuable solution for users who want to optimize their work hours and ensure that they are paid accurately. Its automated features save time and reduce errors, making it a valuable tool for businesses and individuals alike.

3.3 Respondents and Population

The survey participants in this study are employees who work as either full-time or part-time online workers. Additionally, there are ten (10) respondents from Reload Media and five (5) respondents who work from home, making a total of 15 respondents evaluated online. The selection of these respondents was randomized, taking into account their availability as online workers.

3.4 Evaluation Tool

3.4.1. Statistical Tools

The Likert scale is the most generally utilized way to deal with scaling reactions in survey research. Specialized quality estimation can likewise be on a three or five-point Likert scale. (Rocha, 2012). Measuring the project using the quality model ISO 25010, the study will form a five-level Likert item such as 5 as strongly agree, 4 as agree, 3 as neutral, 2 as disagree, and 1 as strongly disagree. In assessing the quality model attributes and sub-qualities, the weighted mean will be computed by getting the average of each sub-qualities by multiplying the scale by the number of votes and dividing by the number of respondents. This is the representation formula for calculating the weighted mean where several votes and r arteries total number of respondents is:

Formula: ((5 x n) + (4 x n) + (3 x n) + (2 x n) + (1 x n)) / r

3.4.2 ISO 25010 System Evaluation Tools

The researchers used software testing procedures such as integration testing, validation testing, and system testing to guarantee the quality of the software. The quality of the software is based on the 8 qualities in ISO 25010:

1. Functionality - The system's functionality will be used and tested by the pilot area in the Reload Media SDN BHD. The pilot area with the help of the researchers will test the effectiveness of the system in Logging into the PMTT system with a computer, this will determine the efficiency of the System.

2. Efficiency - The system software will respond to the end user's command accurately using the PMTT system. The PMTT system is more reliable security per person. It is highly accurate, efficient, and convenient, thus providing all the requested features of the Reload Media SDN BHD

3. Security - The PMTT system is a more reliable security feature account per person which may be forgotten password if time passes. It is highly accurate, safe, and quick.

4. Portability – The PMTT system software can be used in different computer units with a minimal number of specifications needed. The software only requires the minimum spec for a windows platform.

5. Compatibility – The PMTT System is only compatible with Windows OS.

6. Usability – The PMTT system can be easily understood and used by the end-user regardless of the computer knowledge they have. It is highly self-explanatory.

7. Maintainability – PMTT System Software parts are. The researcher could easily modify and upgrade the PMTT system.

8. Reliability – The PMTT System reliability comes from the accurate function of the system using PMTT and ensures this system your data has secured.

ISO 25010 Objectives

ISO 25010 provides 8 qualities to know if the system is working properly and free from error. The researchers aim to develop a system that meets all 8 qualities of ISO 25010. The following objective is according to the 8 qualities of ISO 25010:

1. Functionality Suitability - To create a system that can track time and automatic counting of hourly rate of the employee in the PMTTS and Activity.

2. Performance Efficiency - To create a system that will respond to the end user's command accurately using PMTTS.

3. Compatibility - To create a system that is compatible with any version of Windows OS.

4. Usability - To create a system that can be easily understood and used by the end-user regardless of the computer knowledge they have.

5. Reliability - To create a system that a user can rely on for much easier work time management into the computer.

6. Security - To create a system that ensures the security of the end user's data activities.

7. Maintainability - To create a system that can't be broken easily and is easy to use.

8. Portability - To create a system that can be used in different computer units with a minimal amount of specification needed.

ISO/IEC 25010:2011 - Systems and Software Engineering Standard

Table 3.4 – ISO 25010 Evaluation Scale

Table 3.4 represents the scale to be used and a verbal interpretation of the characteristics and sub-characteristics of the software/hardware quality model.

Verbal interpretation	Scale	Likert Scale options	
Strongly Agree	4.50 - 5.00	**SA**	Strongly Agree
Agree	3.50 - 4.49	**A**	Agree
Neutral	2.50 - 3.49	**N**	Neutral
Disagree	1.50 - 2.49	**D**	Disagree
Strongly Disagree	0.50 - 1.49	**SD**	Strongly Disagree

Chapter IV

RESULTS AND DISCUSSION

4.1 Preliminary Evaluation Results

Preliminary Questionnaire	YES	NO
Q1	15	0
Q2	14	1
Q3	15	0
Q4	14	1
Q5	15	0
Q6	12	3
Q7	15	0
Q8	14	1
Q9	11	4
Q10	12	3

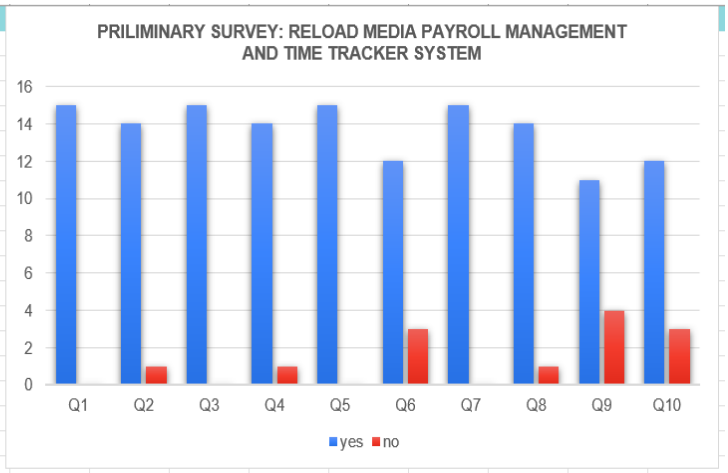

Figure 4.1 Preliminary Evaluation Results

Figure 4.1 not only displays the number of respondents who answered Yes and No to each question but also provides a comprehensive overview of the outcomes of the Preliminary Evaluation. This information can help the team to identify areas that require improvement as well as areas of strength that can be leveraged to enhance the system's overall performance. By carefully analyzing the data, the team can gain insights into user needs and expectations, which can be used to guide future development efforts. The results of the Preliminary Evaluation can also be used to refine the system requirements and identify areas for further user testing.

4.2 System Evaluation Result

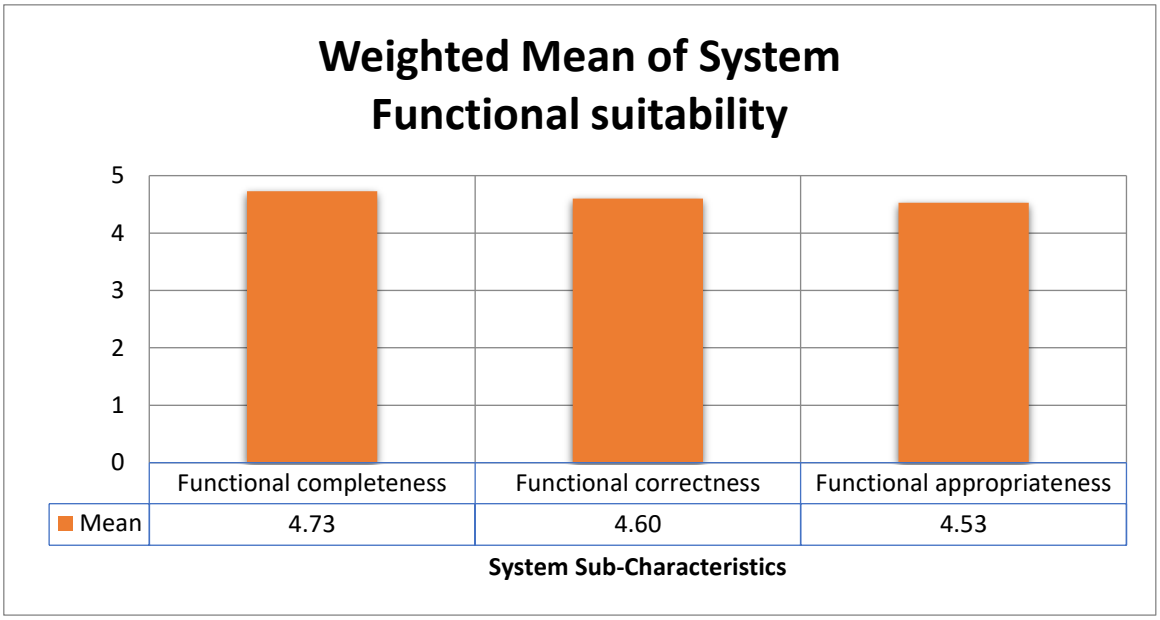

Figure 4.2 Evaluation result of the Functionality Suitability features

Figure 4.2, Functional Completeness received the highest mean score of 4.73, followed by Functional Correctness with a score of 4.60, and Functional Appropriateness with a score of 4.53. It is noteworthy that there is a significant difference between the highest and lowest mean scores, indicating that there is room for improvement in terms of Functional Appropriateness. Overall, Figure 4.2 provides valuable insights into the system's functionality and highlights areas that require attention for future enhancements.

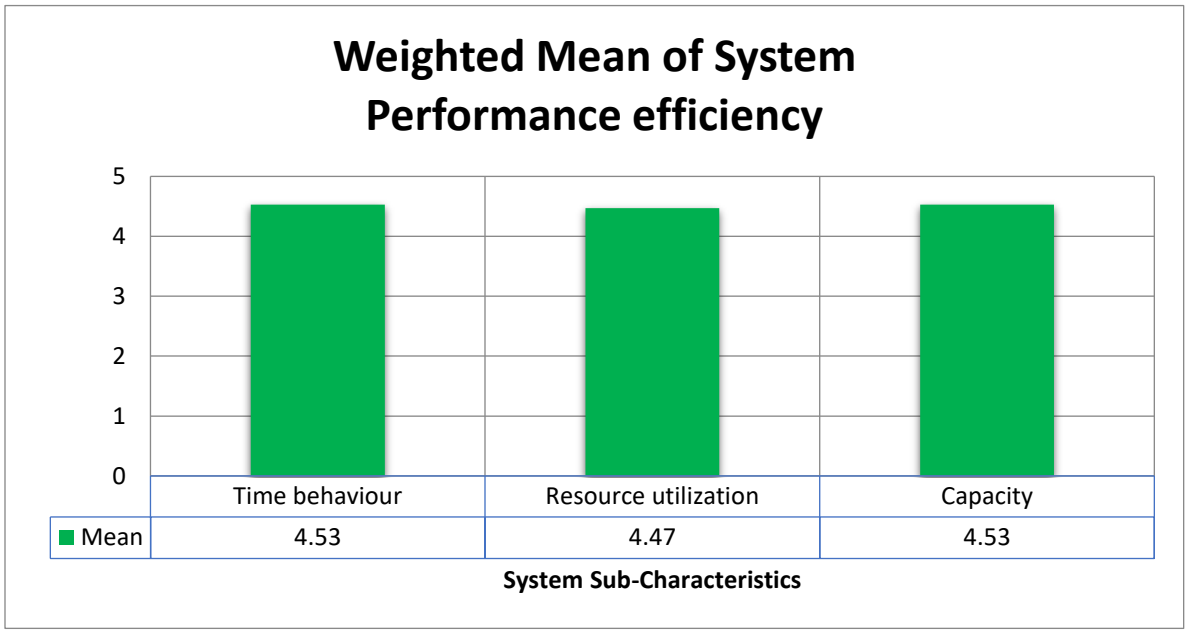

Figure 4.3 Evaluation result of the Performance Efficiency features

Figure 4.3 presents a significant evaluation of the performance efficiency features of the system, indicating that the Time behavior and Capacity had the highest mean score of 4.53. Resource Utilization followed closely, with a mean score of 4.47, among all the evaluated features. These findings offer valuable insights into the system's efficiency and highlight areas that require further attention for future optimization.

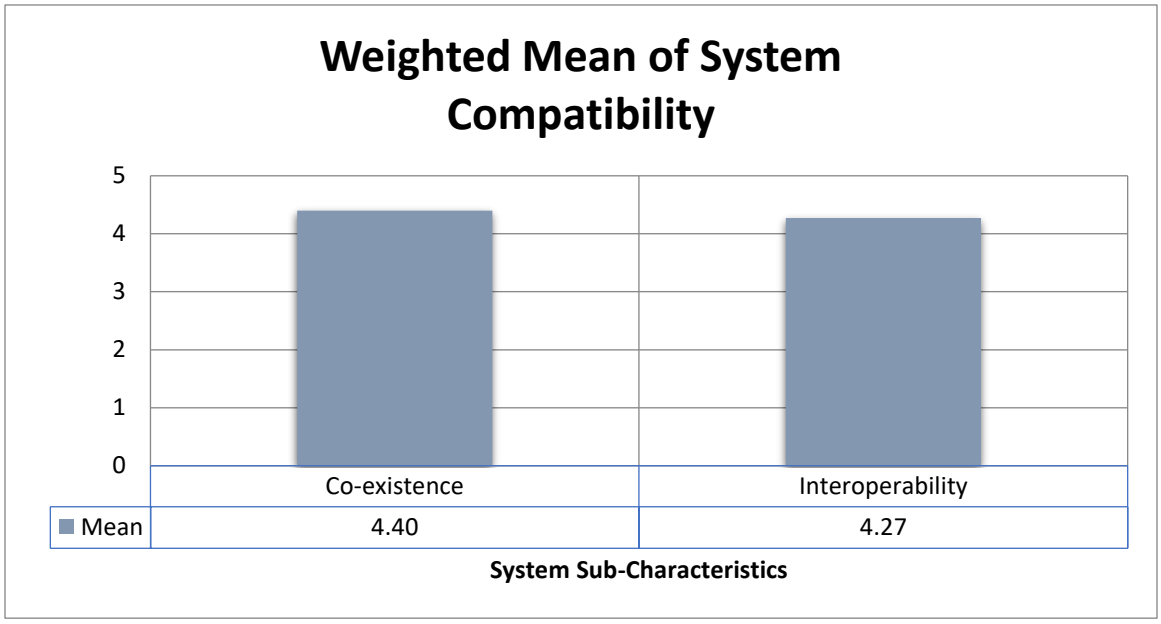

Figure 4.4 Evaluation result of the Compatibility features

Figure 4.4 depicts the evaluation results of the Compatibility Features of the system, wherein Co-existence obtained a higher mean score of 4.40, while Interoperability received a weighted mean score of 4.27.

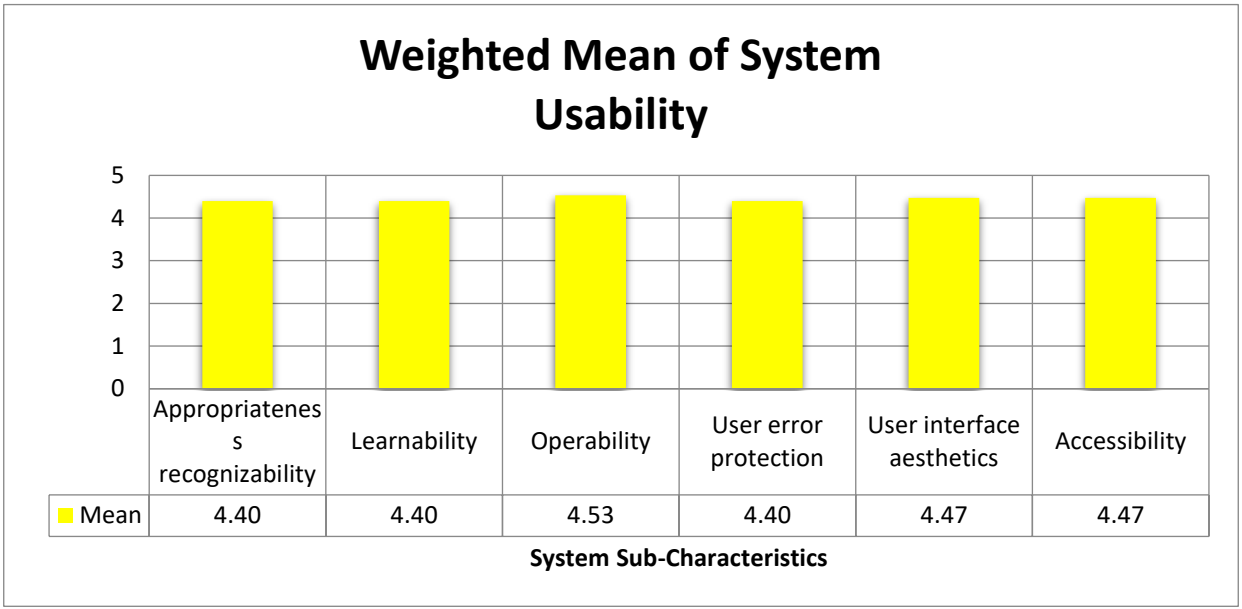

Figure 4.5 Evaluation result of the Usability features

Figure 4.5 presents a detailed evaluation of the usability features of the system, indicating that Operability is the most significant aspect with a mean score of 4.53. User Interface Aesthetics and Accessibility followed closely with a mean score of 4.47. Appropriateness, Recognizability, Learnability, and User Error Protection features scored the same mean of 4.40.

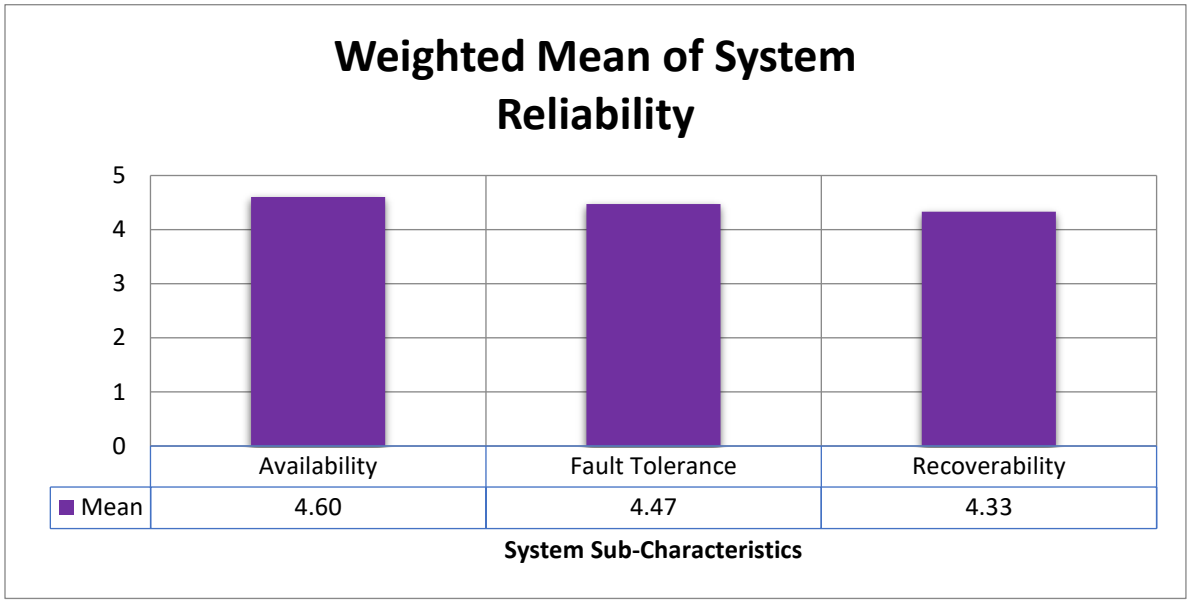

Figure 4.6 Evaluation result of the Reliability features

Figure 4.6 depicts the evaluation of the Reliability features of the system, revealing impressive results. Availability achieved the highest mean score of 4.60, followed by Fault Tolerance with a mean score of 4.47. Recoverability obtained the lowest mean score of 4.33.

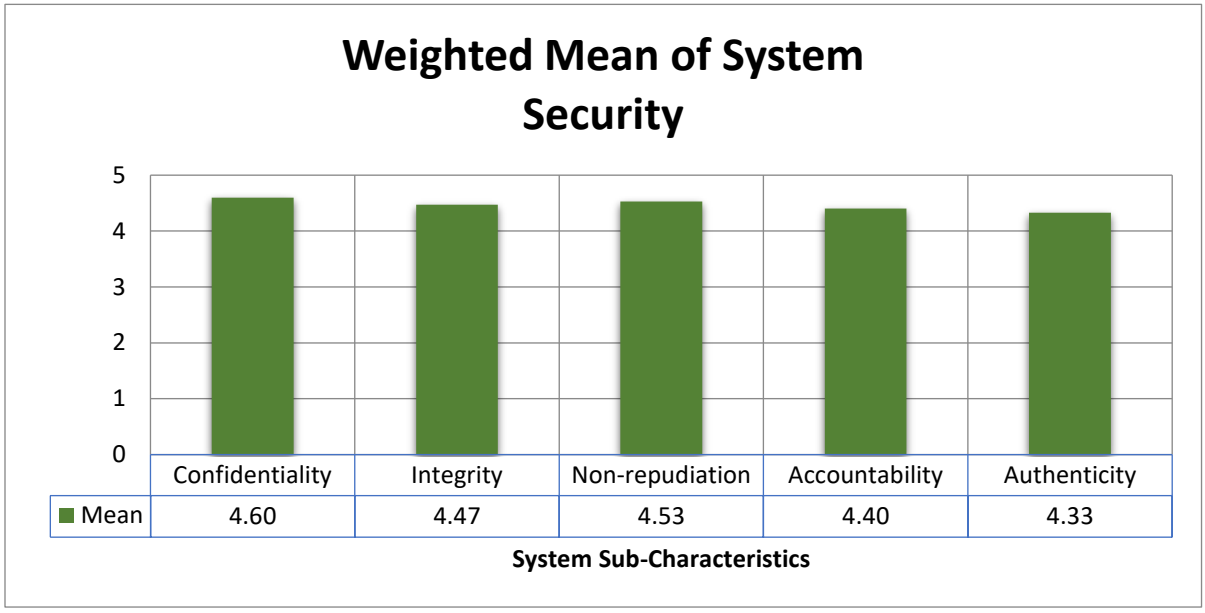

Figure 4.7 Evaluation result of the Security features

Figure 4.7 presents an analysis of the Security features of the system and their corresponding rankings. The results indicate that Confidentiality obtained the highest mean score of 4.60, followed by Non-Repudiation with a mean score of 4.53 and Integrity with a mean score of 4.47. However, Accountability obtained the second-lowest mean score of 4.40, whereas Authenticity received the lowest mean score of 4.33.

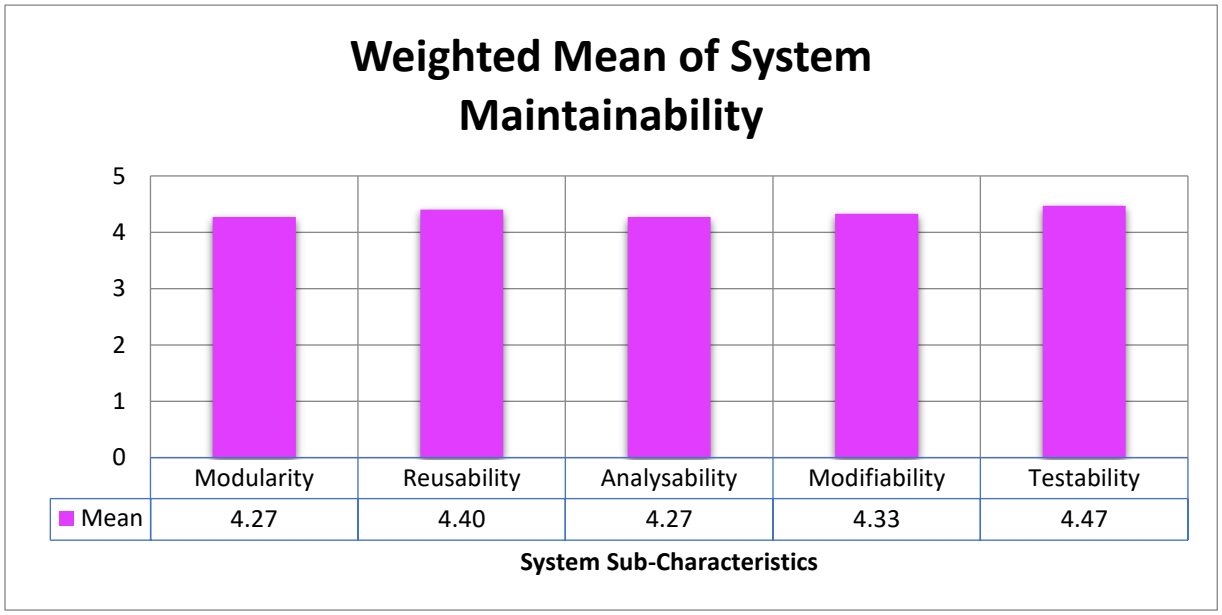

Figure 4.8 Evaluation result of the Maintainability features

Figure 4.8 displays the evaluation results of the maintainability features of the system. Testability achieved the highest mean score of 4.47, followed by Reusability with a mean score of 4.40 and Modifiability with a mean score of 4.33. However, the lowest means were recorded for Modularity and Analyzability, both scoring 4.27. These findings suggest that the system's maintainability features are generally strong, with Testability being the most prominent feature in terms of the mean score.

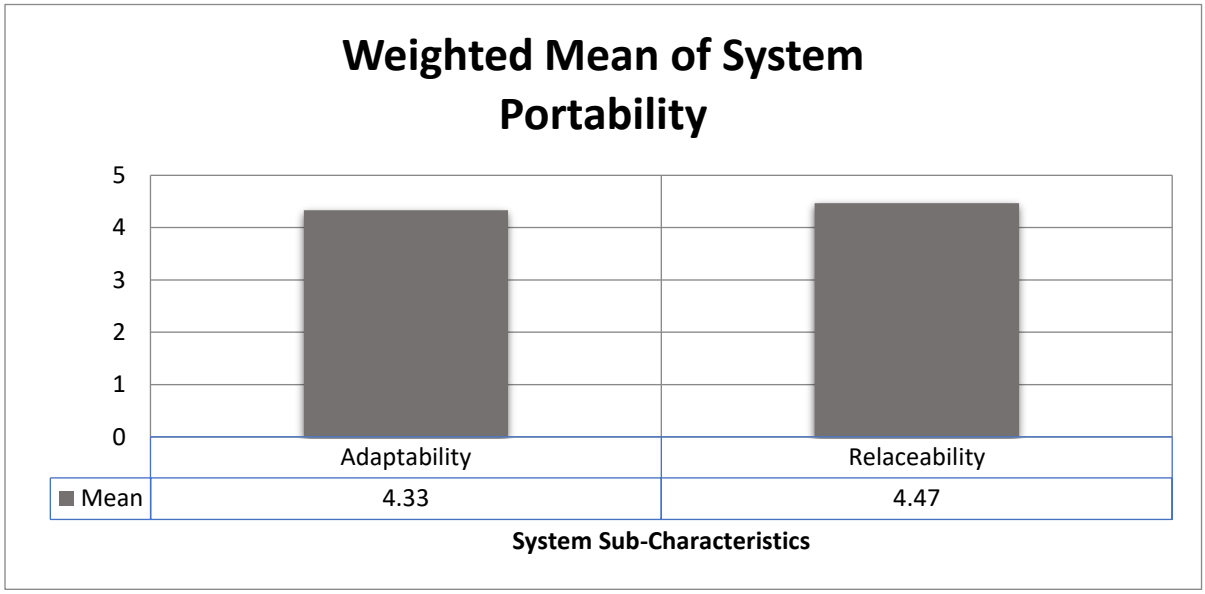

Figure 4.9 Evaluation result of the Portability features

Figure 4.9 shows that Replaceability ranked highest at 4.47, while Adaptability scored the lowest at 4.33 in Portability features. These insights can guide us in making informed decisions to improve the system. Periodic evaluations are crucial to keep the system up-to-date with market trends and user needs, leading to enhanced user experience and satisfaction.

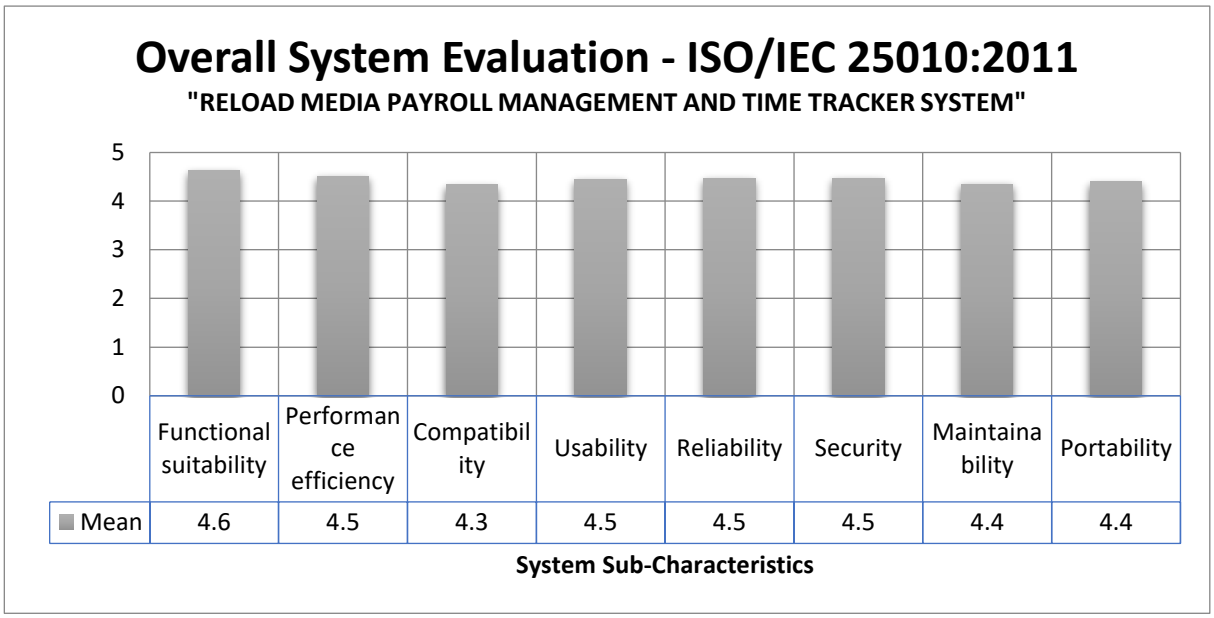

Figure 4.10 Overall System Evaluation

In Figure 10, the Overall System Evaluation is presented in a well-organized manner. According to the ISO 25010 standards for software/hardware quality, it is evident that the system meets all requirements, with most characteristics averaging 4. The highest mean, at 4.6, is for Functional Suitability, followed by Usability, Reliability, and Security, which have a mean of 4.5. The third highest mean is for Performance Efficiency, Maintainability, and Portability, with a score of 4.4. Lastly, the lowest mean is for Compatibility, with a mean score of 4.3. It is impressive to see such an exceptional evaluation, which reflects well on the team's hard work and dedication to creating a top-notch system.

Chapter V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The Payroll Management System software is an excellent investment for the company as it replaces a manual record system and delivers a more efficient, accurate, and secure payroll management solution. The system's use of Microsoft SQL as the database backend, the software platform that manages the login and logout process, and the secure database that allows the administrator to control each user's access ensures that the system is reliable and secure.

By testing the software based on ISO 25010 standards, the researchers have demonstrated that the system meets high standards for quality, efficiency, and usability. The overall objective of the system is to minimize data entry and time required for calculations and deliver accurate, easy-to-calculate results, resulting in cost savings for the company and increased satisfaction for employees.

The Payroll Management System software will undoubtedly streamline the company's payroll processes, reducing the likelihood of errors, and saving time and effort. Overall, it is a wise investment that will bring significant benefits to the company, and the researchers have done an excellent job of designing and implementing a system that meets the company's specific needs and objectives.

1. The system effectively automates time-counting by accurately recording employee start and finish times, minimizing the need for manual tracking, and improving workplace efficiency.

2. The system efficiently automates salary calculation by factoring in hours worked and calculating salaries based on agreed-upon rates, thereby saving time and reducing errors.
3. The system provides reliable screenshot verification to demonstrate employee work status, capturing screenshots at random intervals during the workday and displaying them to managers to ensure transparency and accountability.
4. The system enhances employee accountability and team morale through effective communication tools, clear expectations, and recognition of achievements, fostering a positive and productive work environment.

Overall, the developed system successfully achieves all stated objectives, providing a comprehensive solution for automated time tracking, salary calculation, and work status verification. The system reduces the need for manual tracking, minimizing errors, and promoting efficiency in the workplace. Additionally, the screenshot verification feature ensures accountability and transparency, while effective communication tools, clear expectations, and recognition of achievements promote a positive and productive work environment.

By meeting these objectives, the system helps organizations streamline their processes, reduce errors, and maintain accurate records while promoting accountability and team morale. Overall, the system's ability to automate tedious tasks and provide insightful data can help organizations to make better decisions, increase productivity, and drive growth.

5.2 Recommendations

To assist other payroll management systems, it is important to understand the unique features and benefits of our Payroll Management System, as well as areas where it can be improved. By analyzing our system's capabilities, we can identify potential enhancements that may benefit other systems.

One potential improvement is the addition of machine learning algorithms to improve accuracy and efficiency. By analyzing data patterns and making predictions based on historical data, the system can become more accurate over time, reducing errors and increasing productivity.

Another potential improvement is the integration of biometric authentication, such as fingerprint or facial recognition technology, to enhance security and prevent fraud. This would ensure that only authorized individuals can access sensitive payroll information, reducing the risk of data breaches or unauthorized access.

In addition, offering a self-service portal for employees to access their payroll information and update personal details can improve efficiency and reduce the workload for HR departments. This can be achieved through a mobile application or web-based platform, allowing employees to access their information from anywhere and at any time.

Regular system maintenance and updates are also crucial to ensure that the system remains reliable and secure. By providing automated updates and regular maintenance, the system can remain up-to-date with the latest security patches and feature enhancements.

Finally, integrating the system with other HR solutions, such as talent management or time and attendance systems, can streamline processes and improve accuracy, reducing the likelihood of errors and delays.

By implementing these enhancements, the proposed system can become even more efficient, accurate, and secure, and set a standard for other payroll management systems to follow. By sharing our knowledge and expertise, we can help improve the overall quality of payroll management systems and benefit the entire industry.

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Appendix A

RELEVANT SOURCE CODE

LOGIN CODE

```
public partial class Login : Form
{
Thread th;

SqlConnection conn = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated Security=True");
SqlConnection conn1;

ConnectionDB db = new ConnectionDB();
DataSet ds= new DataSet();
public Login()
{
InitializeComponent();
conn1 = new SqlConnection(db.GetConnection());
}
public void openmdi(object obj)
{
Application.Run(new Pages.Admin_tracker());
}
public void openmdi1(object obj)
{
Application.Run(new user_Tracker1());
}
private void Login_Load(object sender, EventArgs e)
{
timer1.Start();
lblcorrect.Text ="";
}
private void guna2GradientButton1_Click(object sender, EventArgs e)
{
loginEnter();
}
public void loginEnter()
{
string uname = username.Text.Trim();
string upass = password.Text.Trim();

if (string.IsNullOrEmpty(uname) || string.IsNullOrEmpty(upass))
{
lblcorrect.Text = "Please enter username and password";
return;
}
try
{
using (SqlConnection conn = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated Security=True"))
{
conn.Open();
```

```
using (SqlCommand cmd = new SqlCommand("SELECT * FROM Employee_Details
WHERE Username=@uname COLLATE SQL_Latin1_General_CP1_CS_AS AND
Password=@upass COLLATE SQL_Latin1_General_CP1_CS_AS", conn))
{
cmd.Parameters.AddWithValue("@uname", uname);
cmd.Parameters.AddWithValue("@upass", upass);
using (SqlDataReader rd = cmd.ExecuteReader())
{
if (rd.HasRows)
{
rd.Read();

if (rd[8].ToString() == "Admin")
{
LoginUser.Employee_ID = Convert.ToInt32(rd["Employee_ID"]);
rd.Close();

using (SqlCommand cmd1 = new SqlCommand("insert into Logs2
(Employee_ID,Login_Date,Login_Time,Daily_time,DailySalary_Total) values
(@EmployeeID,@LoginDate,@LoginTime,@DailyTime,@DailySalaryTotal)", conn))
{
cmd1.Parameters.AddWithValue("@EmployeeID", LoginUser.Employee_ID);
cmd1.Parameters.AddWithValue("@LoginDate", DateTime.Now.Date);
cmd1.Parameters.AddWithValue("@LoginTime", DateTime.Now.ToString("hh:mm
tt"));
cmd1.Parameters.AddWithValue("@DailyTime", lbltimer.Text);
cmd1.Parameters.AddWithValue("@DailySalaryTotal", lbltotal.Text);

cmd1.ExecuteNonQuery();
}

this.Close();
th = new Thread(openmdi);
th.TrySetApartmentState(ApartmentState.STA);
th.Start();
}
else if (rd[8].ToString() == "User")
{
LoginUser.Employee_ID = Convert.ToInt32(rd["Employee_ID"]);
rd.Close();
using (SqlCommand cmd1 = new SqlCommand("insert into Logs2
(Employee_ID,Login_Date,Login_Time,Daily_time,DailySalary_Total) values
(@EmployeeID,@LoginDate,@LoginTime,@DailyTime,@DailySalaryTotal)", conn))
{
cmd1.Parameters.AddWithValue("@EmployeeID", LoginUser.Employee_ID);
cmd1.Parameters.AddWithValue("@LoginDate", DateTime.Now.Date);
cmd1.Parameters.AddWithValue("@LoginTime", DateTime.Now.ToString("hh:mm
tt"));
cmd1.Parameters.AddWithValue("@DailyTime", lbltimer.Text);
cmd1.Parameters.AddWithValue("@DailySalaryTotal", lbltotal.Text);
cmd1.ExecuteNonQuery();
```

```
}
this.Close();
th = new Thread(openmdi1);
th.TrySetApartmentState(ApartmentState.STA);
th.Start();
}
}
else
{
lblcorrect.Text = "INCORRECT USERNAME OR PASSWORD!";
}
}
}
}
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
private void Username_Enter(object sender, EventArgs e)
{
if (username.Text == "Username")
{
username.Text = "";
username.ForeColor = Color.Black;
}
}
private void Username_Leave(object sender, EventArgs e)
{
if (username.Text == "")
{
username.Text = "Username";
username.ForeColor = Color.Black;
}
}
private void password_Enter(object sender, EventArgs e)
{
if (password.Text == "Password")
{
password.Text = "";
password.ForeColor = Color.Black;
}
}
private void password_Leave(object sender, EventArgs e)
{
if (password.Text == "")
{
password.Text = "Password";
password.ForeColor = Color.Black;
```

```
}
}
private void guna2CheckBox1_CheckedChanged(object sender, EventArgs e)
{
if (guna2CheckBox1.Checked)
{
password.UseSystemPasswordChar = false;
}
else
{
password.UseSystemPasswordChar = true;
}
}
private void timer1_Tick(object sender, EventArgs e)
{
}
private void guna2ControlBox1_Click(object sender, EventArgs e)
{
Dispose();
}
private Label lbltimer;
private Label lbltotal;
private Label lblcorrect;
private void password_KeyPress(object sender, KeyPressEventArgs e)
{
}
private void username_KeyDown(object sender, KeyEventArgs e)
{
if (e.KeyCode == Keys.Enter)
{
loginEnter();
}
}
private void password_KeyDown(object sender, KeyEventArgs e)
{
if (e.KeyCode == Keys.Enter)
{
loginEnter();
}
}
}
}
```

ADMIN TRACKER

```
public partial class Admin_tracker : Form
{
```

```
MyConnection db = new MyConnection();
SqlConnection con = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
SqlConnection con1 = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
SqlConnection conn = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
Stopwatch stopwatch;
int rate1 = 60;
int timeleft1;
private Timer idleTimer;
public Admin_tracker()
{
InitializeComponent();
InitializeIdleTimer();
}
private void InitializeIdleTimer()
{
idleTimer = new Timer();
idleTimer.Interval = 1000;
idleTimer.Tick += new EventHandler(IdleTimer_Tick);
}
private void IdleTimer_Tick(object sender, EventArgs e)
{
const int idleTime = 10;
if (IdleTimeDetector.GetIdleTime() > idleTime)
{
notifyIcon1.BalloonTipTitle = "Alert";
notifyIcon1.BalloonTipText = "NO MOVEMENT DETECT ON YOUR
COMPUTER. THE TRACKER HAS BEEN AN AUTOMATIC PAUSED THE
TRACKER";
notifyIcon1.Icon = SystemIcons.Information;
notifyIcon1.ShowBalloonTip(10000);
endAll();
}
}
private void Admin_tracker_Load(object sender, EventArgs e)
{
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
```

```
timer5.Enabled = true;
try
{
id.Text = LoginUser.Employee_ID.ToString();
string db = "select * from Employee_Details where
Employee_ID = '" + id.Text + "'";
SqlCommand cmd = new SqlCommand(db, con);
con.Open();
using (SqlDataReader dr = cmd.ExecuteReader())
{
if (dr.Read())
{
string f = lblfname.Text = dr["First_name"].ToString();
string a = lbllname.Text = dr["Last_name"].ToString();
lblout.Text = f + " " + a;
lblfname.Enabled = false;
lbllname.Enabled = false;
lblemp.Text = dr["Employee_Position"].ToString();
lblrate.Text = dr["Hour_rate"].ToString();
byte[] img = (byte[])(dr[9]);
if (img == null)
employee_images = null;
else
{
MemoryStream ms = new MemoryStream(img);
employee_images.Image = Image.FromStream(ms);
}
}
}
con.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
try
{
id.Text = LoginUser.Employee_ID.ToString();
string db = "select * from Logs2 where Employee_ID = '" +
id.Text + "' AND Login_Time = '" +
DateTime.Now.ToString("hh:mm tt") + "' ";
SqlCommand cmd = new SqlCommand(db, con);
```

```
con.Open();
using (SqlDataReader dr = cmd.ExecuteReader())
{
if (dr.Read())
{
lbltimer.Text = dr["Daily_time"].ToString();
lbltotal.Text = dr["DailySalary_Total"].ToString();
}
}
con.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
timer1.Start();
label5.Text = DateTime.Now.ToString("hh:mm tt");
stopwatch = new Stopwatch();
}
private void btnstart_Click(object sender, EventArgs e)
{
idleTimer.Start();
stopwatch.Start();
btnstart.Hide();
btnpause.Show();
timer2.Enabled = true;
timer3.Enabled = true;
timer4.Enabled = true;
timer6.Enabled = true;
timer7.Enabled = true;
timer5.Enabled = false;
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
guna2ShadowPanel3.ShadowColor = Color.Green;
guna2ShadowPanel1.ShadowColor = Color.Green;
guna2ShadowPanel2.ShadowColor = Color.Green;
guna2ShadowPanel4.ShadowColor = Color.Green;
}
private void btnpause_Click(object sender, EventArgs e)
{
endAll();
}
```

```
public void endAll()
{
idleTimer.Stop();
stopwatch.Stop();
btnpause.Hide();
btnstart.Show();
timer2.Enabled = false;
timer3.Enabled = false;
timer4.Enabled = false;
timer6.Enabled = false;
timer7.Enabled = false;
guna2ShadowPanel3.ShadowColor = Color.IndianRed;
guna2ShadowPanel1.ShadowColor = Color.IndianRed;
guna2ShadowPanel2.ShadowColor = Color.IndianRed;
guna2ShadowPanel4.ShadowColor = Color.IndianRed;
timer5.Enabled = true;
}
private void timer1_Tick(object sender, EventArgs e)
{
lblDate.Text = DateTime.Now.ToLongDateString();
lbltime.Text = DateTime.Now.ToLongTimeString();
}
int timeleft = 10;
private void timer2_Tick(object sender, EventArgs e)
{
if (timeleft > 0)
{
timeleft = timeleft - 1;
label6.Text = timeleft + "";
}
if (label6.Text == "0")
{
timeleft = 10;
con1.Open();
SqlCommand cmd1 = new SqlCommand("UPDATE Logs2 SET
Employee_ID = @EI, Login_Date = @LD,Login_Time = @LT,
Daily_time = @DT, DailySalary_Total = @DST WHERE Employee_ID
= @EI AND Login_Time = @LT", con1);
cmd1.Parameters.AddWithValue("@EI", int.Parse(id.Text));
cmd1.Parameters.AddWithValue("@LD",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@LT", label5.Text);
cmd1.Parameters.AddWithValue("@DT", lbltimer.Text);
```

```
cmd1.Parameters.AddWithValue("@DST",
float.Parse(lbltotal.Text));
cmd1.ExecuteNonQuery();
con1.Close();
}
}
private void label3_Click(object sender, EventArgs e)
{
}
private void timer3_Tick(object sender, EventArgs e)
{
if (rate1 > 0)
{
rate1 = rate1 - 1;
label7.Text = rate1 + "";
}

if (label7.Text == "0")
{
rate1 = 60;
}
}
private void timer4_Tick(object sender, EventArgs e)
{
if (timeleft1 > 0)
{
timeleft1 = timeleft1 - 1;
label9.Text = timeleft1 + "";
}
if (label9.Text == "0")
{
try
{
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
Bitmap bm = new Bitmap(1920, 1080,
PixelFormat.Format32bppArgb);
Rectangle cr = Screen.AllScreens[0].Bounds;
Graphics g = Graphics.FromImage(bm as Image);
g.CopyFromScreen(0, 0, 0, 0, bm.Size);
SImage.SizeMode = PictureBoxSizeMode.StretchImage;
SImage.Image = bm;
Image img = SImage.Image;
```

```
byte[] arr;
ImageConverter converter = new ImageConverter();
arr = (byte[])converter.ConvertTo(img, typeof(byte[]));
conn.Open();
SqlCommand cmd1 = new SqlCommand("INSERT INTO Screenwork
(Employee_ID,Login_Date,Login_Time,Screen_Shot) Values
(@Employee_ID,@Login_Date,@Login_Time,@SC)", conn);
cmd1.Parameters.AddWithValue("@Employee_ID",
int.Parse(id.Text));
cmd1.Parameters.AddWithValue("@Login_Date",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@Login_Time", lbltime.Text);
cmd1.Parameters.AddWithValue("@SC", arr);
cmd1.ExecuteNonQuery();
conn.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
}
int timeleft2 = 120;
private void timer5_Tick(object sender, EventArgs e)
{
if (timeleft2 > 0)
{
timeleft2 = timeleft2 - 1;
label10.Text = timeleft2 + "";
}
if (label10.Text == "0")
{
timeleft2 = 120;
notifyIcon2.BalloonTipTitle = "Alert";
notifyIcon2.BalloonTipText = "HAVE YOU BEGUN WORKING? YOU
FORGOT TO START THE TIME TRACKER";
notifyIcon2.Icon = SystemIcons.Information;
notifyIcon2.ShowBalloonTip(10000);
}
}
private void guna2ShadowPanel2_Paint(object sender,
PaintEventArgs e)
```

```
{
}
string imageUrl = null;
private void SImage_Click(object sender, EventArgs e)
{
using (OpenFileDialog ofd = new OpenFileDialog())
{
if (ofd.ShowDialog() == DialogResult.OK)
{
imageUrl = ofd.FileName;
SImage.Image = Image.FromFile(imageUrl);
}
}
}
private void calendarToolStripMenuItem_Click(object sender,
EventArgs e)
{
Pages.Admin_Control c = new Pages.Admin_Control();
c.Show();
}
private void logoutToolStripMenuItem_Click(object sender,
EventArgs e)
{
if (MessageBox.Show("DO YOU WANT TO LOG OUT?", "MESSAGE",
MessageBoxButtons.YesNo, MessageBoxIcon.Question) ==
DialogResult.Yes)
{
con1.Open();
SqlCommand cmd1 = new SqlCommand("UPDATE Logs2 SET
Employee_ID = @EI, Login_Date = @LD,Login_Time = @LT,
Daily_time = @DT, DailySalary_Total = @DST, Logout_time =
@out WHERE Employee_ID = @EI AND Login_Time = @LT", con1);
cmd1.Parameters.AddWithValue("@EI", int.Parse(id.Text));
cmd1.Parameters.AddWithValue("@LD",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@LT", label5.Text);
cmd1.Parameters.AddWithValue("@DT", lbltimer.Text);
cmd1.Parameters.AddWithValue("@DST",
float.Parse(lbltotal.Text));
cmd1.Parameters.AddWithValue("@out",
DateTime.Now.ToString("hh:mm tt"));
cmd1.ExecuteNonQuery();
con1.Close();
```

```
Login l = new Login();
l.Show();
this.Hide();
endAll();
timer5.Enabled = false;
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
}
}
private void lblDate_Click(object sender, EventArgs e)
{
}
int timeleft3 = 60;
private void timer6_Tick(object sender, EventArgs e)
{
if (timeleft3 > 0)
{
timeleft3 = timeleft3 - 1;
label11.Text = timeleft3 + "";
}
if (label11.Text == "0")
{
timeleft3 = 60;
float num1 = float.Parse(lblrate.Text);
float num2 = float.Parse(label4.Text);
float num3 = float.Parse(lblresult.Text);
float num4 = float.Parse(label12.Text);
float result1 = 0;
float result2 = 0;
result1 = num1 / num2;
lblresult.Text = result1.ToString();
result2 = result1 * num4;
lbltotal.Text = result2.ToString();
}
}
int timeleft7 = 00;
private void timer7_Tick(object sender, EventArgs e)
{
timeleft7 = timeleft7 + 1;
label12.Text = timeleft7 + "";
}
private void timer8_Tick(object sender, EventArgs e)
{
```

```
try
{
lbltimer.Text = string.Format("{0:hh\\:mm\\:ss}",
stopwatch.Elapsed);
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
private void Admin_tracker_MouseMove(object sender,
MouseEventArgs e)
{
}
private void Admin_tracker_MouseClick(object sender,
MouseEventArgs e)
{
}
private void Admin_tracker_KeyDown(object sender,
KeyEventArgs e)
{
}
private void settingsToolStripMenuItem_Click(object sender,
EventArgs e)
{
frmSettingsAdmin l = new frmSettingsAdmin();
l.Show();
}
private void label13_Click(object sender, EventArgs e)
{
}
}
public static class IdleTimeDetector
{
[DllImport("user32.dll")]
private static extern bool GetLastInputInfo(ref
LASTINPUTINFO plii);
public static int GetIdleTime()
{
int idleTime = 0;
LASTINPUTINFO lastInputInfo = new LASTINPUTINFO();
lastInputInfo.cbSize = (uint)Marshal.SizeOf(lastInputInfo);
```

```
lastInputInfo.dwTime = 0;

if (GetLastInputInfo(ref lastInputInfo))
{
uint lastInputTick = lastInputInfo.dwTime;
uint systemTick = (uint)Environment.TickCount;
uint idleTick = systemTick - lastInputTick;
idleTime = (int)(idleTick / 1000);
}
return idleTime;
}
[StructLayout(LayoutKind.Sequential)]
internal struct LASTINPUTINFO
{
public uint cbSize;
public uint dwTime;
}
}
}
```

USER TRACKER

```
public partial class user_Tracker1 : Form
{
MyConnection db = new MyConnection();
SqlConnection con = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
SqlConnection con1 = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
SqlConnection conn = new SqlConnection("Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True");
Stopwatch stopwatch;
int timeleft1;
int rate1 = 60;
private Timer idleTimer;
public user_Tracker1()
{
InitializeComponent();
InitializeIdleTimer();
```

```
}
private void InitializeIdleTimer()
{
idleTimer = new Timer();
idleTimer.Interval = 1000;
idleTimer.Tick += new EventHandler(IdleTimer_Tick);
}

private void IdleTimer_Tick(object sender, EventArgs e)
{
const int idleTime = 10;
if (IdleTimeDetector.GetIdleTime() > idleTime)
{
notifyIcon1.BalloonTipTitle = "Alert";
notifyIcon1.BalloonTipText = "NO MOVEMENT DETECT ON YOUR
COMPUTER. THE TRACKER HAS BEEN AN AUTOMATIC PAUSED THE
TRACKER";
notifyIcon1.Icon = SystemIcons.Information;
notifyIcon1.ShowBalloonTip(10000);
endAll();
}
}
private void calendarToolStripMenuItem_Click(object sender,
EventArgs e)
{
try
{
txt1 = id.Text;
new Pages.userLogs().ShowDialog();
}
catch (Exception ex)
{
con.Close();
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
public static string txt1 = "";
private void accountToolStripMenuItem_Click(object sender,
EventArgs e)
{
try
{
```

```
txt1 = id.Text;
new Pages.accountpass().ShowDialog();
}
catch (Exception ex)
{
con.Close();
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
private void logoutToolStripMenuItem_Click(object sender,
EventArgs e)
{
if (MessageBox.Show("DO YOU WANT TO LOG OUT?", "MESSAGE",
MessageBoxButtons.YesNo, MessageBoxIcon.Question) ==
DialogResult.Yes)
{
con1.Open();
SqlCommand cmd1 = new SqlCommand("UPDATE Logs2 SET
Employee_ID = @EI, Login_Date = @LD,Login_Time = @LT,
Daily_time = @DT, DailySalary_Total = @DST, Logout_time =
@out WHERE Employee_ID = @EI AND Login_Time = @LT", con1);
cmd1.Parameters.AddWithValue("@EI", int.Parse(id.Text));
cmd1.Parameters.AddWithValue("@LD",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@LT", label5.Text);
cmd1.Parameters.AddWithValue("@DT", lbltimer.Text);
cmd1.Parameters.AddWithValue("@DST",
float.Parse(lbltotal.Text));
cmd1.Parameters.AddWithValue("@out",
DateTime.Now.ToString("hh:mm tt"));
cmd1.ExecuteNonQuery();
con1.Close();
Login l = new Login();
l.Show();
endAll();
this.Hide();
timer5.Enabled = false;
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
}
}
private void user_Tracker1_Load(object sender, EventArgs e)
```

```
{
label9.Text = Settings.Default.minS_U;
timeleft1 = int.Parse(label9.Text);
timer5.Enabled = true;
try
{
id.Text = LoginUser.Employee_ID.ToString();
string db = "select * from Employee_Details where Employee_ID
= '" + id.Text + "'";

SqlCommand cmd = new SqlCommand(db, con);
con.Open();
using (SqlDataReader dr = cmd.ExecuteReader())
{
if (dr.Read())
{
string f = lblfname.Text = dr["First_name"].ToString();
string a = lbllname.Text = dr["Last_name"].ToString();
lblout.Text = f + " " + a;
lblfname.Enabled = false;
lbllname.Enabled = false;
lblemp.Text = dr["Employee_Position"].ToString();
lblrate.Text = dr["Hour_rate"].ToString();
byte[] img = (byte[])(dr[9]);
if (img == null)
employee_images = null;
else
{
MemoryStream ms = new MemoryStream(img);
employee_images.Image = Image.FromStream(ms);
}
}
}
con.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
try
{
id.Text = LoginUser.Employee_ID.ToString();
```

```
string db = "select * from Logs2 where Employee_ID = '" +
id.Text + "' AND Login_Time = '" +
DateTime.Now.ToString("hh:mm tt") + "' ";
SqlCommand cmd = new SqlCommand(db, con);
con.Open();
using (SqlDataReader dr = cmd.ExecuteReader())
{
if (dr.Read())
{
lbltimer.Text = dr["Daily_time"].ToString();
lbltotal.Text = dr["DailySalary_Total"].ToString();
}
}
con.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
timer1.Start();
label5.Text = DateTime.Now.ToString("hh:mm tt");
stopwatch = new Stopwatch();
}
private void btnstart_Click(object sender, EventArgs e)
{
idleTimer.Start();
stopwatch.Start();
btnstart.Hide();
btnpause.Show();
timer2.Enabled = true;
timer3.Enabled = true;
timer4.Enabled = true;
timer6.Enabled = true;
timer7.Enabled = true;
timer5.Enabled = false;
label9.Text = Settings.Default.minS;
timeleft1 = int.Parse(label9.Text);
guna2ShadowPanel3.ShadowColor = Color.Green;
guna2ShadowPanel1.ShadowColor = Color.Green;
guna2ShadowPanel2.ShadowColor = Color.Green;
guna2ShadowPanel4.ShadowColor = Color.Green;
}
```

```
private void btnpause_Click(object sender, EventArgs e)
{
endAll();
}
public void endAll()
{
idleTimer.Stop();
stopwatch.Stop();
btnpause.Hide();
btnstart.Show();
timer2.Enabled = false;
timer3.Enabled = false;
timer4.Enabled = false;
timer5.Enabled = true;
timer6.Enabled = false;
timer7.Enabled = false;
guna2ShadowPanel3.ShadowColor = Color.IndianRed;
guna2ShadowPanel1.ShadowColor = Color.IndianRed;
guna2ShadowPanel2.ShadowColor = Color.IndianRed;
guna2ShadowPanel4.ShadowColor = Color.IndianRed;
}
private void timer1_Tick(object sender, EventArgs e)
{
lblDate.Text = DateTime.Now.ToLongDateString();
lbltime.Text = DateTime.Now.ToLongTimeString();
}
int timeleft = 10;
private void timer2_Tick(object sender, EventArgs e)
{
if (timeleft > 0)
{
timeleft = timeleft - 1;
label6.Text = timeleft + "";
}
if (label6.Text == "0")
{
timeleft = 10;
con1.Open();
SqlCommand cmd1 = new SqlCommand("UPDATE Logs2 SET
Employee_ID = @EI, Login_Date = @LD,Login_Time = @LT,
Daily_time = @DT, DailySalary_Total = @DST WHERE Employee_ID
= @EI AND Login_Time = @LT", con1);
cmd1.Parameters.AddWithValue("@EI", int.Parse(id.Text));
```

```
cmd1.Parameters.AddWithValue("@LD",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@LT", label5.Text);
cmd1.Parameters.AddWithValue("@DT", lbltimer.Text);
cmd1.Parameters.AddWithValue("@DST",
float.Parse(lbltotal.Text));
cmd1.ExecuteNonQuery();
con1.Close();
}
}
private void timer3_Tick(object sender, EventArgs e)
{
if (rate1 > 0)
{
rate1 = rate1 - 1;
label7.Text = rate1 + "";
}
if (label7.Text == "0")
{
rate1 = 60;
}
}
private void timer4_Tick(object sender, EventArgs e)
{
if (timeleft1 > 0)
{
timeleft1 = timeleft1 - 1;
label9.Text = timeleft1 + "";
}
if (label9.Text == "0")
{
try
{
label9.Text = Settings.Default.minS_U;
timeleft1 = int.Parse(label9.Text);
Bitmap bm = new Bitmap(1920, 1080,
PixelFormat.Format32bppArgb);
Rectangle cr = Screen.AllScreens[0].Bounds;
Graphics g = Graphics.FromImage(bm as Image);
g.CopyFromScreen(0, 0, 0, 0, bm.Size);
SImage.SizeMode = PictureBoxSizeMode.StretchImage;
SImage.Image = bm;
Image img = SImage.Image;
```

```
byte[] arr;
ImageConverter converter = new ImageConverter();
arr = (byte[])converter.ConvertTo(img, typeof(byte[]));
conn.Open();
SqlCommand cmd1 = new SqlCommand("INSERT INTO Screenwork
(Employee_ID,Login_Date,Login_Time,Screen_Shot) Values
(@Employee_ID,@Login_Date,@Login_Time,@SC)", conn);
cmd1.Parameters.AddWithValue("@Employee_ID",
int.Parse(id.Text));
cmd1.Parameters.AddWithValue("@Login_Date",
DateTime.Now.ToString("yyyy-MM-dd"));
cmd1.Parameters.AddWithValue("@Login_Time", lbltime.Text);
cmd1.Parameters.AddWithValue("@SC", arr);
cmd1.ExecuteNonQuery();
conn.Close();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}
}
int timeleft2 = 120;
private void timer5_Tick(object sender, EventArgs e)
{
if (timeleft2 > 0)
{
timeleft2 = timeleft2 - 1;
label10.Text = timeleft2 + "";
}

if (label10.Text == "0")
{
notifyIcon2.BalloonTipTitle = "Alert";
notifyIcon2.BalloonTipText = "HAVE YOU BEGUN WORKING? YOU
FORGOT TO START THE TIME TRACKER";
notifyIcon2.Icon = SystemIcons.Information;
notifyIcon2.ShowBalloonTip(10000);
}
}
string imageUrl = null;
private void SImage_Click(object sender, EventArgs e)
```

```
{
using (OpenFileDialog ofd = new OpenFileDialog())
{
if (ofd.ShowDialog() == DialogResult.OK)
{
imageUrl = ofd.FileName;
SImage.Image = Image.FromFile(imageUrl);
}
}
}
int timeleft3 = 60;
private void timer6_Tick(object sender, EventArgs e)
{
if (timeleft3 > 0)
{
timeleft3 = timeleft3 - 1;
label11.Text = timeleft3 + "";
}
if (label11.Text == "0")
{
timeleft3 = 60;
float num1 = float.Parse(lblrate.Text);
float num2 = float.Parse(label4.Text);
float num3 = float.Parse(lblresult.Text);
float num4 = float.Parse(label12.Text);
float result1 = 0;
float result2 = 0;
result1 = num1 / num2;
lblresult.Text = result1.ToString();
result2 = result1 * num4;
lbltotal.Text = result2.ToString();
}
}
int timeleft7 = 00;
private void timer7_Tick(object sender, EventArgs e)
{
timeleft7 = timeleft7 + 1;
label12.Text = timeleft7 + "";
}
private void guna2ControlBox1_Click(object sender, EventArgs
e)
{
Dispose();
```

```
}
private void timer8_Tick(object sender, EventArgs e)
{
lbltimer.Text = string.Format("{0:hh\\:mm\\:ss}",
stopwatch.Elapsed);
}
private void settingsToolStripMenuItem_Click(object sender,
EventArgs e)
{
frmSettingsUser l = new frmSettingsUser();
l.Show();
}
}
public static class IdleTimeDetector
{
[DllImport("user32.dll")]
private static extern bool GetLastInputInfo(ref LASTINPUTINFO
plii);
public static int GetIdleTime()
{
int idleTime = 0;
LASTINPUTINFO lastInputInfo = new LASTINPUTINFO();
lastInputInfo.cbSize = (uint)Marshal.SizeOf(lastInputInfo);
lastInputInfo.dwTime = 0;
if (GetLastInputInfo(ref lastInputInfo))
{
uint lastInputTick = lastInputInfo.dwTime;
uint systemTick = (uint)Environment.TickCount;
uint idleTick = systemTick - lastInputTick;
idleTime = (int)(idleTick / 1000);
}
return idleTime;
}
[StructLayout(LayoutKind.Sequential)]
internal struct LASTINPUTINFO
{
public uint cbSize;
public uint dwTime;
}
}
}
```

ADMIN EMPLOYEE DETAILS

```
public partial class Admin_Control : Form
{
SqlConnection conn1;
SqlCommand cmd;
ConnectionDB db = new ConnectionDB();
SqlDataReader dr;
public Admin_Control()
{
InitializeComponent();
conn1 = new SqlConnection(db.GetConnection());
LoadRecords();
}
public void LoadRecords()
{
try
{
employeeGrid.Rows.Clear();
conn1.Open();
cmd = new SqlCommand("SELECT * FROM Employee_Details WHERE
CONCAT(First_name,Middle_name,Last_name,Employee_Position,
Accountype) LIKE '%" + txtfsearch.Text+"%'", conn1);
dr = cmd.ExecuteReader();

while (dr.Read())
{
employeeGrid.Rows.Add(dr["Employee_ID"].ToString(),
dr["Employee_Image"], dr["First_name"].ToString(),
dr["Middle_name"].ToString(), dr["Last_name"].ToString(),
dr["Username"].ToString(), dr["Password"].ToString(),
dr["Employee_Position"].ToString(),
dr["Hour_rate"].ToString(), dr["Accountype"].ToString());
}
dr.Close();
conn1.Close();
}
catch (Exception ex)
{
conn1.Close();
MessageBox.Show(ex.Message, "WARNING",
MessageBoxButtons.OK, MessageBoxIcon.Warning);
}
```

```
}
private void Admin_Control_Load(object sender, EventArgs
e)
{
employeeGrid.Sort(employeeGrid.Columns[0],
ListSortDirection.Descending);
}
private void addnew_Click(object sender, EventArgs e)
{
Pages.Add_Form f = new Pages.Add_Form(this);
f.btnsave.Enabled = true;
f.btnupdate.Enabled = false;
f.ShowDialog();
}
Byte[] ImageByteArray;
private void employeeGrid_CellContentClick_1(object
sender, DataGridViewCellEventArgs e)
{
string colName = employeeGrid.Columns[e.ColumnIndex].Name;

if (colName == "colEdit")
{
Pages.Add_Form f = new Pages.Add_Form(this);
f.id.Text =
employeeGrid.Rows[e.RowIndex].Cells[0].Value.ToString();
byte[] ImageArray =
(byte[])employeeGrid.CurrentRow.Cells[1].Value;
ImageByteArray = ImageArray;
f.employee_images.Image = Image.FromStream(new
MemoryStream(ImageArray));
f.txtfname.Text =
employeeGrid.Rows[e.RowIndex].Cells[2].Value.ToString();
f.txtmname.Text =
employeeGrid.Rows[e.RowIndex].Cells[3].Value.ToString();
f.txtlname.Text =
employeeGrid.Rows[e.RowIndex].Cells[4].Value.ToString();
f.txtuname.Text =
employeeGrid.Rows[e.RowIndex].Cells[5].Value.ToString();
f.txtpass.Text =
employeeGrid.Rows[e.RowIndex].Cells[6].Value.ToString();
f.txtposition.Text =
employeeGrid.Rows[e.RowIndex].Cells[7].Value.ToString();
```

```
f.txtrate.Text =
employeeGrid.Rows[e.RowIndex].Cells[8].Value.ToString();
f.txttype.Text =
employeeGrid.Rows[e.RowIndex].Cells[9].Value.ToString();
f.btnsave.Enabled = false;
f.btnupdate.Enabled = true;
f.ShowDialog();
}
else if (colName == "colDel")
{
if (MessageBox.Show("DO YOU WANT TO DELETE THIS RECORD? IF
YES, ALL RECORD HAS BEEN REMOVE! ", "MESSAGE",
MessageBoxButtons.YesNo, MessageBoxIcon.Question) ==
DialogResult.Yes)
{
conn1.Open();
cmd = new SqlCommand("DELETE FROM Employee_Details WHERE
Employee_ID = '" +
employeeGrid.Rows[e.RowIndex].Cells[0].Value.ToString() +
"'", conn1);
cmd.ExecuteNonQuery();
conn1.Close();
conn1.Open();
cmd = new SqlCommand("DELETE FROM Logs2 WHERE Employee_ID
= '" +
employeeGrid.Rows[e.RowIndex].Cells[0].Value.ToString() +
"'", conn1);
cmd.ExecuteNonQuery();
conn1.Close();
conn1.Open();
cmd = new SqlCommand("DELETE FROM Screenwork WHERE
Employee_ID = '" +
employeeGrid.Rows[e.RowIndex].Cells[0].Value.ToString() +
"'", conn1);
cmd.ExecuteNonQuery();
conn1.Close();
MessageBox.Show("RECORD HAS BEEN SUCCESSFULLY
DELETED.","MESSAGE",
MessageBoxButtons.OK,MessageBoxIcon.Information);
LoadRecords();
}
}
else if (colName == "colDetails")
```

```
{
Pages.Logs f = new Pages.Logs(this);
f.id.Text =
employeeGrid.Rows[e.RowIndex].Cells[0].Value.ToString();
byte[] ImageArray =
(byte[])employeeGrid.CurrentRow.Cells[1].Value;
ImageByteArray = ImageArray;
f.picturecircle.Image = Image.FromStream(new
MemoryStream(ImageArray));
f.lblfname.Text =
employeeGrid.Rows[e.RowIndex].Cells[2].Value.ToString();
f.lbllname.Text =
employeeGrid.Rows[e.RowIndex].Cells[4].Value.ToString();
f.lblposition.Text =
employeeGrid.Rows[e.RowIndex].Cells[7].Value.ToString();
f.ShowDialog();
}
}
byte[] ConvertImageToBytes(Image img)
{
using(MemoryStream ms = new MemoryStream())
{
img.Save(ms, System.Drawing.Imaging.ImageFormat.Png);
return ms.ToArray();
}
}
public Image ConvertByteArrayToImage(byte[] bytes)
{
using(MemoryStream ms = new MemoryStream())
{
return Image.FromStream(ms);
}
}
private void txtfsearch_TextChanged(object sender,
EventArgs e)
{
LoadRecords();
}
}
}
```

ADMIN EMPLOYEE ADD/DELETE

```
public partial class Add_Form : Form
{
SqlConnection conn1;
SqlCommand cmd;
ConnectionDB db = new ConnectionDB();
string imageUrl = null;
Pages.Admin_Control f;
Image DefaultImage;
public Add_Form(Admin_Control f)
{
InitializeComponent();
conn1 = new SqlConnection(db.GetConnection());
this.f = f;
DefaultImage = employee_images.Image;
}
private void SImage_Click(object sender, EventArgs e)
{
using (OpenFileDialog ofd = new OpenFileDialog())
{
if (ofd.ShowDialog() == DialogResult.OK)
{
imageUrl = ofd.FileName;
employee_images.Image = Image.FromFile(imageUrl);
}
}
}
private void clear()
{
id.Text = "00000000";
txtfname.Clear();
txtmname.Clear();
txtlname.Clear();
txtuname.Clear();
txtpass.Clear();
txtposition.Clear();
txtrate.Clear();
employee_images.Image = DefaultImage;
}
private void btnsave_Click(object sender, EventArgs e)
{
try
{
```

```
if(txtfname.Text == "" || txtmname.Text == "" ||
txtlname.Text == "" || txtuname.Text == "" || txttype.Text
== "" || txtposition.Text == "" || txtrate.Text == "")
{
MessageBox.Show("REQUIRED MISSING
FIELD!","Message",MessageBoxButtons.OK,
MessageBoxIcon.Information);
return;
}
var input = txtpass.Text;
if(input == "")
{
MessageBox.Show("Password should not be empty");
return;
}
var HasNumber = new Regex(@"[0-9]+");
var HasUpperChar = new Regex(@"[A-Z]+");
var Lowercase = new Regex(@"[a-z]+");
if (!HasNumber.IsMatch(input))
{
MessageBox.Show("Password should contain at least one
numeric value.");
return;
}
else if (!HasUpperChar.IsMatch(input))
{
MessageBox.Show("Password should contain at least Upper
case letter.");
return;
}
else if (!Lowercase.IsMatch(input))
{
MessageBox.Show("Password should contain at least Lower
case letter.");
return;
}
else
{
Image img = employee_images.Image;
byte[] arr;
ImageConverter converter = new ImageConverter();
arr = (byte[])converter.ConvertTo(img, typeof(byte[]));
conn1.Open();
```

```
cmd = new SqlCommand("INSERT INTO Employee_Details
(First_name,Middle_name,Last_name,Username,Password,Employ
ee_Position,Hour_rate,Accountype,Employee_Image,photourl)
VALUES
(@First_name,@Middle_name,@Last_name,@Username,@Password,@
Employee_Position,@Hour_rate,@Accountype,@Employee_Image,@
photourl)", conn1);
cmd.Parameters.AddWithValue("@First_name", txtfname.Text);
cmd.Parameters.AddWithValue("@Middle_name",
txtmname.Text);
cmd.Parameters.AddWithValue("@Last_name", txtlname.Text);
cmd.Parameters.AddWithValue("@Username", txtuname.Text);
cmd.Parameters.AddWithValue("@Password", txtpass.Text);
cmd.Parameters.AddWithValue("@Employee_Position",
txtposition.Text);
cmd.Parameters.AddWithValue("@Hour_rate", txtrate.Text);
cmd.Parameters.AddWithValue("@Accountype", txttype.Text);
cmd.Parameters.AddWithValue("@Employee_Image", arr);
cmd.Parameters.AddWithValue("@photourl", imageUrl);
cmd.ExecuteNonQuery();
conn1.Close();
MessageBox.Show("NEW EMPLOYEE HAS BEEN SUCCESSFULLY
ADDED.", "MESSAGE", MessageBoxButtons.OK,
MessageBoxIcon.Information);
f.LoadRecords();
clear();
}
}
catch (Exception ex)
{
conn1.Close();
MessageBox.Show(ex.Message,"WARNING",
MessageBoxButtons.OK, MessageBoxIcon.Warning);
}
}
private void employee_images_Click(object sender,
EventArgs e)
{
using (OpenFileDialog ofd = new OpenFileDialog())
{
if (ofd.ShowDialog() == DialogResult.OK)
{
imageUrl = ofd.FileName;
```

```
employee_images.Image = Image.FromFile(imageUrl);
}
}
}
private void Add_Form_Load(object sender, EventArgs e)
{
}
private void btnupdate_Click(object sender, EventArgs e)
{
try
{
if (MessageBox.Show("WANT TO UPDATE THIS
RECORD?","MESSAGE",MessageBoxButtons.YesNo,MessageBoxIcon.
Question)==DialogResult.Yes)
{
if (txtfname.Text == "" || txtmname.Text == "" ||
txtlname.Text == "" || txtuname.Text == "" || txttype.Text
== "" || txtposition.Text == "" || txtrate.Text == "")
{
MessageBox.Show("REQUIRED MISSING FIELD!", "Message",
MessageBoxButtons.OK, MessageBoxIcon.Information);
return;
}
var input = txtpass.Text;
if (input == "")
{
MessageBox.Show("Password should not be empty");
return;
}
var HasNumber = new Regex(@"[0-9]+");
var HasUpperChar = new Regex(@"[A-Z]+");
var Lowercase = new Regex(@"[a-z]+");
if (!HasNumber.IsMatch(input))
{
MessageBox.Show("Password should contain at least one
numeric value.");
return;
}
else if (!HasUpperChar.IsMatch(input))
{
MessageBox.Show("Password should contain at least Upper
case letter.");
return;
```

```
}
else if (!Lowercase.IsMatch(input))
{
MessageBox.Show("Password should contain at least Lower
case letter.");
return;
}
else
{
Image img1 = employee_images.Image;
byte[] arr;
ImageConverter converter = new ImageConverter();
arr = (byte[])converter.ConvertTo(img1, typeof(byte[]));
conn1.Open();
cmd = new SqlCommand("UPDATE Employee_Details SET
First_name = @First_name, Middle_name = @Middle_name,
Last_name = @Last_name, Username = @Username, Password =
@Password, Employee_Position = @Employee_Position,
Hour_rate = @Hour_rate, Accountype = @Accountype,
Employee_Image = @Employee_Image WHERE Employee_ID =
@Employee_ID", conn1);
cmd.Parameters.AddWithValue("@Employee_ID", id.Text);
cmd.Parameters.AddWithValue("@First_name", txtfname.Text);
cmd.Parameters.AddWithValue("@Middle_name",
txtmname.Text);
cmd.Parameters.AddWithValue("@Last_name", txtlname.Text);
cmd.Parameters.AddWithValue("@Username", txtuname.Text);
cmd.Parameters.AddWithValue("@Password", txtpass.Text);
cmd.Parameters.AddWithValue("@Employee_Position",
txtposition.Text);
cmd.Parameters.AddWithValue("@Hour_rate", txtrate.Text);
cmd.Parameters.AddWithValue("@Accountype", txttype.Text);
cmd.Parameters.AddWithValue("@Employee_Image", arr);
cmd.ExecuteNonQuery();
conn1.Close();
MessageBox.Show("THE DETAILS HAS BEEN SUCCESSFULLY
UPDATED.", "MESSAGE", MessageBoxButtons.OK,
MessageBoxIcon.Information);
clear();
f.LoadRecords();
}
}
}
```

```
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING",
MessageBoxButtons.OK, MessageBoxIcon.Warning);
conn1.Close();
}
}
byte[] ConvertImageToBytes(Image img)
{
using (MemoryStream ms = new MemoryStream())
{
img.Save(ms, System.Drawing.Imaging.ImageFormat.Png);
return ms.ToArray();
}
}
public Image ConvertByteArrayToImage(byte[] bytes)
{
using (MemoryStream ms = new MemoryStream())
{
return Image.FromStream(ms);
}
}
}
}
```

EMPLOYEE TIME LOGS AND SCREENSHOT

```
public partial class Logs : Form
{
SqlConnection conn1;
SqlCommand cmd;
ConnectionDB db = new ConnectionDB();
SqlDataReader dr;
Pages.Admin_Control f;
public Logs(Admin_Control f)
{
InitializeComponent();
conn1 = new SqlConnection(db.GetConnection());
this.f = f;
}
private void guna2Button3_Click(object sender, EventArgs e)
```

```
{
logsGrid.Show();
ImagesGrid.Hide();
}
private void guna2Button1_Click(object sender, EventArgs e)
{
ImagesGrid.Show();
logsGrid.Hide();
}
private void lblout_Click(object sender, EventArgs e)
{
}
private void Logs_Load(object sender, EventArgs e)
{
string f = lblfname.Text;
string a = lbllname.Text;
lblout.Text = f + " " + a;
timer1.Start();
}
public void LoadRecords()
{
try
{
logsGrid.Rows.Clear();
conn1.Open();
cmd = new SqlCommand("SELECT * FROM Logs2 WHERE Employee_ID
LIKE @id + '%' ORDER BY Employee_ID ASC", conn1);
cmd.Parameters.AddWithValue("@id", id.Text);
dr = cmd.ExecuteReader();
while (dr.Read())
{
logsGrid.Rows.Add(dr["ID"].ToString(),
dr["Employee_ID"].ToString(), dr["Login_Date"],
dr["Login_Time"].ToString(), dr["Daily_time"].ToString(),
dr["Logout_time"].ToString(),
dr["DailySalary_Total"].ToString(),
dr["WeeklyTime_Total"].ToString());
logsGrid.Sort(logsGrid.Columns[0],
ListSortDirection.Descending);
}
dr.Close();
conn1.Close();
logsGrid.Columns[2].DefaultCellStyle.Format = "yyyy-MM-dd";
```

```
}
catch (Exception ex)
{
conn1.Close();
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
try
{
ImagesGrid.Rows.Clear();
conn1.Open();
cmd = new SqlCommand("SELECT * FROM Screenwork WHERE
Employee_ID LIKE @id + '%' ORDER BY Employee_ID ASC",
conn1);
cmd.Parameters.AddWithValue("@id", id.Text);
dr = cmd.ExecuteReader();
while (dr.Read())
{
ImagesGrid.Rows.Add(dr["ID"].ToString(),
dr["Employee_ID"].ToString(), dr["Login_Date"],
dr["Login_Time"].ToString(), dr["Screen_Shot"]);
ImagesGrid.Sort(ImagesGrid.Columns[0],
ListSortDirection.Descending);
}
dr.Close();
conn1.Close();
}
catch (Exception ex)
{
conn1.Close();
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
}
}

private void id_Click(object sender, EventArgs e)
{

}
Byte[] ImageByteArray;
private void ImagesGrid_CellContentClick(object sender,
DataGridViewCellEventArgs e)
{
```

```
string colName = ImagesGrid.Columns[e.ColumnIndex].Name;
if (colName == "colDel")
{
if (MessageBox.Show("DO YOU WANT TO DELETE THIS PICTURE?",
"MESSAGE", MessageBoxButtons.YesNo, MessageBoxIcon.Question)
== DialogResult.Yes)
{
conn1.Open();
cmd = new SqlCommand("DELETE FROM Screenwork WHERE ID = '" +
ImagesGrid.Rows[e.RowIndex].Cells[0].Value.ToString() + "'",
conn1);
cmd.ExecuteNonQuery();
conn1.Close();
MessageBox.Show("SCREENSHOT HAS BEEN SUCCESSFULLY DELETED.",
"MESSAGE", MessageBoxButtons.OK,
MessageBoxIcon.Information);
LoadRecords();
}
}
else if (colName == "Screen_Shot")
{
Pages.Screenshot ff = new Pages.Screenshot(this);
byte[] ImageArray =
(byte[])ImagesGrid.CurrentRow.Cells[4].Value;
ImageByteArray = ImageArray;
ff.SSimage.Image = Image.FromStream(new
MemoryStream(ImageArray));
ff.lbldate.Text =
ImagesGrid.Rows[e.RowIndex].Cells[1].Value.ToString();
ff.time.Text =
ImagesGrid.Rows[e.RowIndex].Cells[2].Value.ToString();
ff.ShowDialog();

}
}
byte[] ConvertImageToBytes(Image img)
{
using (MemoryStream ms = new MemoryStream())
{
img.Save(ms, System.Drawing.Imaging.ImageFormat.Png);
return ms.ToArray();
}
```

```
}
public Image ConvertByteArrayToImage(byte[] bytes)
{
using (MemoryStream ms = new MemoryStream())
{
return Image.FromStream(ms);
}
}
private void logsGrid_CellContentClick(object sender,
DataGridViewCellEventArgs e)
{
}

private void lblposition_Click(object sender, EventArgs e)
{
}
private void btnrender_Click(object sender, EventArgs e)
{
try
{
ImagesGrid.Rows.Clear();
conn1.Open();
cmd = new SqlCommand("SELECT * FROM Screenwork WHERE
Employee_ID LIKE @id + '%' AND Login_Date BETWEEN @startDate
AND @endDate ORDER BY Employee_ID ASC", conn1);
cmd.Parameters.AddWithValue("@id", id.Text);
cmd.Parameters.AddWithValue("@startDate",
dateTimePicker_Start.Value.Date);
cmd.Parameters.AddWithValue("@endDate",
dateTimePicker_End.Value.Date);
dr = cmd.ExecuteReader();
while (dr.Read())
{
ImagesGrid.Rows.Add(dr["ID"].ToString(),
dr["Employee_ID"].ToString(), dr["Login_Date"],
dr["Login_Time"].ToString(), dr["Screen_Shot"]);
ImagesGrid.Sort(ImagesGrid.Columns[0],
ListSortDirection.Descending);
}
dr.Close();
conn1.Close();
logsGrid.Rows.Clear();
conn1.Open();
```

```
cmd = new SqlCommand("SELECT * FROM Logs2 WHERE Employee_ID
= @id AND Login_Date BETWEEN @startDate AND @endDate ORDER
BY Login_Date ASC", conn1);
cmd.Parameters.AddWithValue("@id", id.Text);
cmd.Parameters.AddWithValue("@startDate",
dateTimePicker_Start.Value.Date);
cmd.Parameters.AddWithValue("@endDate",
dateTimePicker_End.Value.Date);
dr = cmd.ExecuteReader();
while (dr.Read())
{
logsGrid.Rows.Add(dr["ID"].ToString(),
dr["Employee_ID"].ToString(), dr["Login_Date"],
dr["Login_Time"].ToString(), dr["Daily_time"].ToString(),
dr["Logout_time"].ToString(),
dr["DailySalary_Total"].ToString(),
dr["WeeklyTime_Total"].ToString());
logsGrid.Sort(logsGrid.Columns[0],
ListSortDirection.Descending);
}
dr.Close();
conn1.Close();
renderS.Text = "0";
for (int i = 0; i < logsGrid.Rows.Count; i++)
{
renderS.Text = Convert.ToString(float.Parse(renderS.Text) +
float.Parse(logsGrid.Rows[i].Cells[6].Value.ToString()));
}
TimeSpan sum;
TimeSpan total = TimeSpan.Parse("000:00:00");
for (int i = 0; i < logsGrid.Rows.Count; i++)
{
string time =
Convert.ToString(logsGrid.Rows[i].Cells[4].Value);
sum = TimeSpan.Parse(time);
total = total.Add(sum);
}
renderT.Text = total.ToString();
}
catch (Exception ex)
{
MessageBox.Show(ex.Message, "WARNING", MessageBoxButtons.OK,
MessageBoxIcon.Warning);
```

```
}
}
int rate1 = 3;
private void timer1_Tick(object sender, EventArgs e)
{
if (rate1 > 0)
{
rate1 = rate1 - 1;
label4.Text = rate1 + "";

}
if (label4.Text == "0")
{
rate1 = 3;
LoadRecords();
timer1.Stop();
}
}
private void guna2GradientButton1_Click(object sender,
EventArgs e)
{
renderT.Text = "000:00:00";
renderS.Text = "000.00";
LoadRecords();
}
}
}
```

SCREENSHOT VIEWER

```
public partial class Screenshot : Form
{
Pages.Logs ff;
public Screenshot(Logs ff)
{
InitializeComponent();
this.ff = ff;
}
}
}
```

SCREENSHOT SETTINGS

```
public frmSettingsAdmin()
{
InitializeComponent();
valuedate();
}
public void valuedate()
{
List<val> ft = new List<val>();
ft.Add(new val() { minutes = 600, name = "10 Minutes" });
ft.Add(new val() { minutes = 540, name = "9 Minutes" });
ft.Add(new val() { minutes = 480, name = "8 Minutes" });
ft.Add(new val() { minutes = 420, name = "7 Minutes" });
ft.Add(new val() { minutes = 360, name = "6 Minutes" });
ft.Add(new val() { minutes = 300, name = "5 Minutes" });
guna2ComboBox1.DataSource = ft;
guna2ComboBox1.DisplayMember = "Name";
}
private void guna2ComboBox1_SelectedIndexChanged(object
sender, EventArgs e)
{
val ft1 = guna2ComboBox1.SelectedItem as val;
label2.Text = Convert.ToString(ft1.minutes);
}
private void guna2GradientButton1_Click(object sender,
EventArgs e)
{
Settings.Default.nameS = guna2ComboBox1.Text;
Settings.Default.minS = label2.Text;
Settings.Default.Save();
MessageBox.Show("YOU NEED TO LOGOUT TO APPLY THE SCREENSHOT
MINUTES CHANGES.", "MESSAGE", MessageBoxButtons.OK,
MessageBoxIcon.Information);

}
private void frmSettingsAdmin_Load(object sender, EventArgs
e)
{
guna2ComboBox1.Text = Settings.Default.nameS;
label2.Text = Settings.Default.minS;
}
}
```

```
}
```

SQL CONNECTION

```
class ConnectionDB
{
public string GetConnection()
{
string conn1 = "Data Source=DESKTOP-L0FUGSM;Initial
Catalog=PMTTS_SERVER_ROOM;Integrated Security=True";
return conn1;

public MyConnection()
{
con = new
SqlConnection(ConfigurationManager.ConnectionStrings["CC"]
.ConnectionString);;
}
}
}

<connectionStrings>
<add name="CC" connectionString="Data Source=DESKTOP-
L0FUGSM;Initial Catalog=PMTTS_SERVER_ROOM;Integrated
Security=True"
providerName="System.Data.SqlClient" />
<add
name="PMTTS_Feb_10_2023.Properties.Settings.PMTTS_SERVER_R
OOMConnectionString"
connectionString="Data Source=Giber;Initial
Catalog=PMTTS_SERVER_ROOM;Integrated Security=True"
providerName="System.Data.SqlClient" />
</connectionStrings>
```

CLASSES

```
namespace PMTTS_Feb_10_2023.Class_Connection
{
public class LoginUser
{
public static int Employee_ID;
public static string First_name;
public static string Middle_name;
```

```
public static string Last_name;
public static string Employee_Position;
public static string username;
public static int Employee_Image;
public static string Accountype;
}
}
namespace PMTTS_Feb_10_2023.Class_Connection
{
class val
{
public int minutes {get; set;}
public string name {get; set;}
}
}
```

Appendix B

EVALUATION TOOL / QUESTIONNAIRE

PRELIMINARY SURVEY

FULL NAME:

WORK / POSITION:

1. Have you ever tried using a time tracker while at work?

   O YES O NO

2. Are you comfortable using time tracker while at work?

   O YES O NO

3. Does time tracker help you record your daily time logs and offsets?

   O YES O NO

4. Does time tracking improve your productivity?

   O YES O NO

5. Does it help you compute your rendered hours?

   O YES O NO

6. Do you take breaks regularly?

   O YES O NO

7. Is time tracker important as an online worker?

   O YES O NO

8. Does time tracker tool accurately track time and easily computes your salary?

   O YES O NO

9. Do you think the system will track the time in/ time out of the employee 24 hours?

   O YES O NO

10. Do you track unpaid time to through payroll?

    O YES O NO

FULL NAME:

WORK / POSITION:

Functional Suitability. This characteristic represents the degree to which a product or system provides functions that meet stated and implied needs when used under specified conditions.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

1. **Functional Completeness:** The system has the function of a Payroll System. * Mark only one oval.

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

2. **Functional Correctness:** The system displays accurate data. * Mark only one oval.

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

3. **Functional Appropriateness:** The system performs the following function of payroll system as intended. * Mark only one oval.

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

Performance Efficiency. This characteristic represents the performance relative to the number of resources used under stated conditions.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

4. **Time Behavior:** The system displays data fast and accurate. * Mark only one oval.

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

Resource Utilization: The system still performs well even with minimal resources. * Mark only one oval.

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

5. **Capacity:** The system keeps its initial performance even with loads of data. * Mark only one oval.

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

Compatibility. Degree to which a product, system or component can exchange information with other products, systems, or components, and/or perform its required functions, while sharing the same hardware or software environment.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

6. **Co-existence**: The system works well with the current windows version. * Mark only one oval.

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

7. **Interoperability:** The different modules of the system communicate well without prompting an error. * Mark only one oval.

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

Usability. Degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

8. **Appropriateness Recognizability:** The system provides a right function for what the employees needed. * Mark only one oval.

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

9. **Learnability:** The system can be used even with non-techie users. * Mark only one oval.

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

10. **Operability:** The system is user-friendly to a designated users * Mark only one oval.

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

11. **User Error Protection:** The system restricts the users from entering invalid data. * Mark only one oval.

1	2	3	4	5

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

12. **User Interface Aesthetics:** The system user interface follows the usual structure of a software. * Mark only one oval.

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

13. **Accessibility:** The system can be accessed in other devices. * Mark only one oval.

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

Reliability. Degree to which a system, product or component performs specified functions under specified conditions for a specified period.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

14. **Availability:** The system is always available to use. * Mark only one oval.

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

15. **Fault Tolerance:** The system still works even with software and hardware failure. * Mark only one oval.

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

16. **Recoverability:** The system can be redeployed in case of a cyber-attack. * Mark only one oval.

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

Security. Degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

17. **Confidentiality:** The system assures that the important data are only accessible to the administrators. * Mark only one oval.

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

19 Integrity: The system has a login in that can only be accessed by the authorized person. * Mark only one oval.

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

20 Non - Repudiation: The system logs the user activity. * Mark only one oval.

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

21. Accountability: The system logs users who modifies the system. * Mark only one oval.

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

22. Authenticity: The system give access to an identified user only. * Mark only one oval.

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

Maintainability. This characteristic represents the degree of effectiveness and efficiency with which a product or system can be modified to improve it, correct it or adapt it to changes in environment, and in requirements.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

23. Modularity: Updating a certain module does not affect the functionality of the other modules. * Mark only one oval.

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

24. Reusability: The system can be applied to various company. * Mark only one oval.

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

25. Analyzability: The system can easily be checked to determine which components will be modified. * Mark only one oval.

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

26. Modifiability: The system can still be upgraded. * Mark only one oval.

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

27. Testability: The system can be tested by various users to ensure that the requirements are fulfilled. * Mark only one oval.

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

Portability. Degree of effectiveness and efficiency with which a system, product or component can be transferred from one hardware, software or other operational or usage environment to another.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

28. Adaptability: The system can be use in different versions of Windows. * Mark only one oval.

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

29. Replaceability: The system can replace the old system with same functions and features. * Mark only one oval.

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

Perpetual Help College of Pangasinan
Montemayor St., Malasiqui Pangasian

COLLEGE OF COMPUTER STUDIES

Appendix C

USER'S GUIDE / MANUAL

Software Manual

RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM

CARIDA, DEXTER S.

REGALADO, GIBERMAR P.

TABUZO, VINCENT P.

VARGAS, KENNETH P.

1.0 General Information

General information section provides the explanation of the system in general terms and its purpose.

1.1 System Overview

In today's fast-paced world, managing payroll and tracking time has become crucial aspects of running a successful business. With the help of advanced technology, the Reload Media Payroll Management and Time Tracker System have made this task easier for online workers. This innovative tracker not only saves screenshots automatically but also calculates the salary every minute. The collected data is directed to the database while employees or admins are working, making it an efficient tool for improving productivity and streamlining processes. With its user-friendly interface and advanced features, this payroll management and time tracker system is a game-changer for businesses looking to optimize their operations.

1.2 Organization of the Manual

This user's manual is divided into four sections. The General Information System Summary. Getting Started and using the system.

General Information section will be provided the explanation of the system in general terms and its purpose.

System Summary section will provide the overview of the system.

Table of Contents

Getting Started section will provide the explanation on how to run the system and its functions.

Lastly **Using the System section** will provide the detailed description of system functions.

2.0 System Summary

System Summary section provides the overview of the system.

2.1 System Configuration

RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM can be deployed or downloaded on the website by giving the administrator or HR Manager. The software will run on any windows os or higher. To run this, RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM we need an internet connection to store in the database server the employee working data.

2.2 User Access Levels

the RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM offer two different accounts, the admin and user, to ensure effective management of time and payroll. With this system in place, users can easily access the time tracker while the admin has the power to modify all accounts. The user account provides detailed information about logs and screenshots, allowing for seamless monitoring of employee productivity. Trusting this system to handle your

PAYROLL MANAGEMENT AND TIME TRACKER needs is a wise investment that will undoubtedly pay off in the long run.

2.3 Contingencies

In case of an error in the system. please contact the system administrator or HR.

3.0 Getting Started

Getting Started section will provide the explanation on how to run the system and functions.

3.1 Installation

To effectively use the RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM, new users must follow an installation guide. The first step is to download the application from the website provided by HR or Administration. Once the download is complete, the next step is installation. After installation, users must wait for the administrator to provide them with account credentials before logging in to start using the system. By following these instructions, users can easily and efficiently manage their payroll and time tracking needs using the RELOAD MEDIA system.

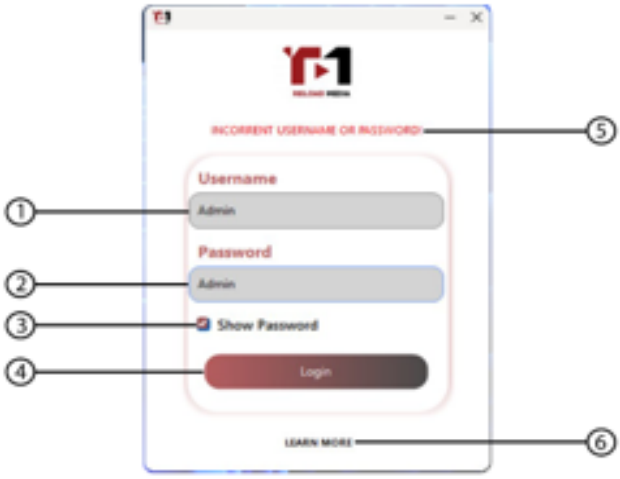
3.2 System Menu

The RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM boasts a comprehensive and organized system menu that caters to both administrators and users. While the admin menu provides complete access to all features including employee management, the user menu only displays important details such as time tracker

information and login logs. This clear differentiation between menus ensures efficient and secure use of the system by all parties involved. So, whether you are an administrator or a user, the system menu serves as a reliable guide in managing payroll and tracking time effectively.

4.0 Using the System

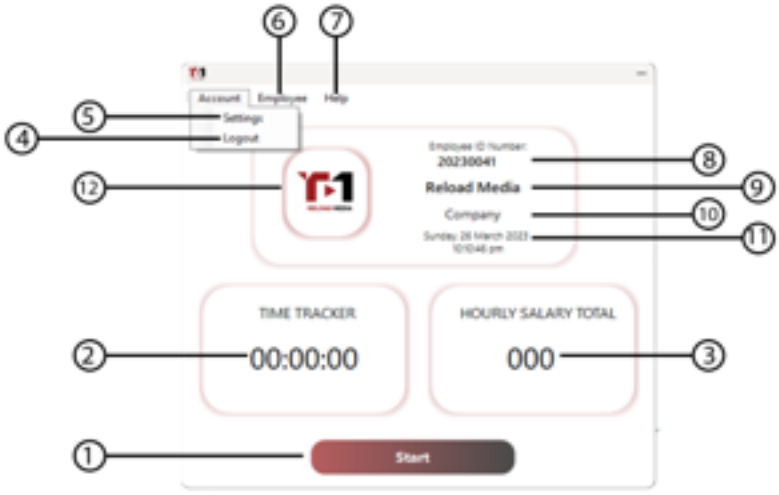
Using the System section will provide the detailed description of system functions.



4.1.1Login Pages

Login pages are an essential part of any software, as they help ensure the security of the system. When users access the software, the login screen is the first thing they see. This screen prompts them to enter their username and password, which the system then validates to grant access to either the Admin or User tab. It's crucial to have a reliable login page in place that not only provides a secure login process but also offers a user-friendly experience.

1. This is where you type in your username.
2. This is where you type in your password.
3. Clicking this button, the password will be shown.
4. Clicking this button, you will be logged in to the admin tab or user tab and save the logging time.
5. If you are wrong in the username or password the alert message will be shown at the top
6. By clicking this button, you will be directed to the system's video tutorial link.



4.1.2 Administrator/User Tracker Tab

Administrator/User Tracker Tab is almost the same as the user tab but there is a difference in the button. When you open the Admin Tracker Tab within two minutes or you forget to press start, it will alert you, when you also press the start and no movement is detected on the Laptop or PC, the alert will appear, and it will try to pause your tracker.

1. Clicking the "Start" button will initiate the timer and start tracking your work hours. The system will count your hourly salary every minute, and take screenshots at intervals of every 10 minutes (default setting).
2. The system displays the total time you have worked.
3. The system displays the hourly rate for the work completed.
4. Clicking this button logs you out and directs you to the login tab, saving your logout time.
5. This button takes you to the "Settings" or "Screenshot Settings" tab.
6. This button directs you to the "Employee Details" tab.
7. Clicking this button redirects you to the system's video tutorial link.
8. The system displays the employee's ID number.
9. The system displays the employee's name.
10. The system displays the employee's position.
11. The system displays the date and time.
12. The system displays the employee's screenshot image.

4.1.3 Employee Details Tab

The "Admin Details" tab provides information about users or employees, and allows administrators to add, delete, and edit user details. This tab is a crucial tool for managing the workforce efficiently and maintaining accurate records of employee information. By utilizing this feature, administrators can easily keep track of essential details such as employee names, contact information, job titles, and other relevant data. Furthermore, the tab allows for quick updates and changes to employee information as needed, ensuring that records remain up-to-date and accurate. Overall, the "Admin Details" tab is a valuable resource for any organization looking to streamline their human resources management processes and improve their overall efficiency.

1. "Add New Employee" tab to add a new employee's details.
2. "Search" function to retrieve specific details of a user.
3. "Edit" function to modify the records of a user.
4. "Delete" function to remove all records of a user.
5. "Time Logs" tab to view all the logged hours of a user.
6. "ID" field to display the unique identification number of the user.
7. "Name" field to display the first name of the user.

8. "Middle Name" field to display the middle name of the user.
9. "Last Name" field to display the last name of the user.
10. "Username" field to display the username of the user.
11. "Work Position" field to display the job position or title of the user.
12. "Hourly Rate" field to display the hourly wage or rate of the user.
13. "Account Type" field to display the user's account type, such as regular or administrator.

4.1.4 Administrator Add and Update Tab

The "Administrator Add and Update" tab is one of the most crucial features of the system as it enables administrators to add new users and update their details as needed. This tab serves as a centralized hub for managing the workforce, ensuring that employee data remains up-to-date and

accurate. By utilizing this tab, administrators can easily input new employee information, such as names, contact information, job titles, and other relevant details, into the system. Additionally, the tab allows for easy editing of employee information as needed, ensuring that records remain accurate and up-to-date. Overall, the "Administrator Add and Update" tab is a powerful tool for any organization looking to manage its human resources effectively and efficiently.

1. This section displays the User ID.
2. This section is where you enter your First name.
3. This section is where you enter your Middle name.
4. This section is where you enter your Last name.
5. This section is where you enter your Username.
6. This section is where you enter your Password.
7. This section is for selecting your image.
8. This section is where the user picks their account type.
9. This section is where you enter your Work Position.
10. This section is where you enter the hourly rate.
11. This button saves the new user data.
12. This button updates the user's data.

4.1.5 Logs tab

The "Logs" tab is a valuable tool for monitoring and tracking employee performance. This feature displays the time logs of users, allowing administrators to easily track the number of hours worked by each employee over a specific time period. By selecting a date range, the system can also calculate the total salary earned by each employee during that period, giving a comprehensive overview of their productivity. This information can help managers identify areas where employees are excelling or struggling, allowing them to provide targeted support and training where necessary. Overall, the "Logs" tab is an essential feature for any organization looking to monitor and optimize employee performance.

1. This section displays the login date of the user.
2. This section displays the details of the user.
3. This section displays the login time of the user.
4. The "Render" button can calculate the total salary by selecting a specific date range.

5. This section is for selecting the date range.
6. The "Clear" button removes the filtered range of dates.
7. This section displays the total work hours and salary of the user.
8. The "Logs" button displays the time logs of the user.
9. The "Logs" button displays the work screenshots of the user.
10. This section displays the daily time rendered by the user.
11. This section displays the logout time of the user.
12. This section displays the hourly rate while the user is working.

4.1.6 Logs tab – Screenshot

The "Logs" tab's "Screenshot" section is a crucial feature that displays the work screenshots taken at regular intervals for the user. This feature provides administrators with a visual

representation of the user's work progress and can help identify any issues or areas for improvement. By reviewing the screenshots, managers can track the user's progress and ensure that they are working effectively and efficiently. This feature also provides an additional layer of security, as it allows administrators to ensure that the user is working on the right task and not engaging in any unauthorized activity. Overall, the "Logs" tab's "Screenshot" section is an invaluable tool for monitoring and optimizing employee productivity.

1. The screenshot will display the date it was taken.
2. The screenshot will display the time it was taken.
3. The screenshot image will be displayed.
4. The icon button will delete the images.

4.1.7 Settings

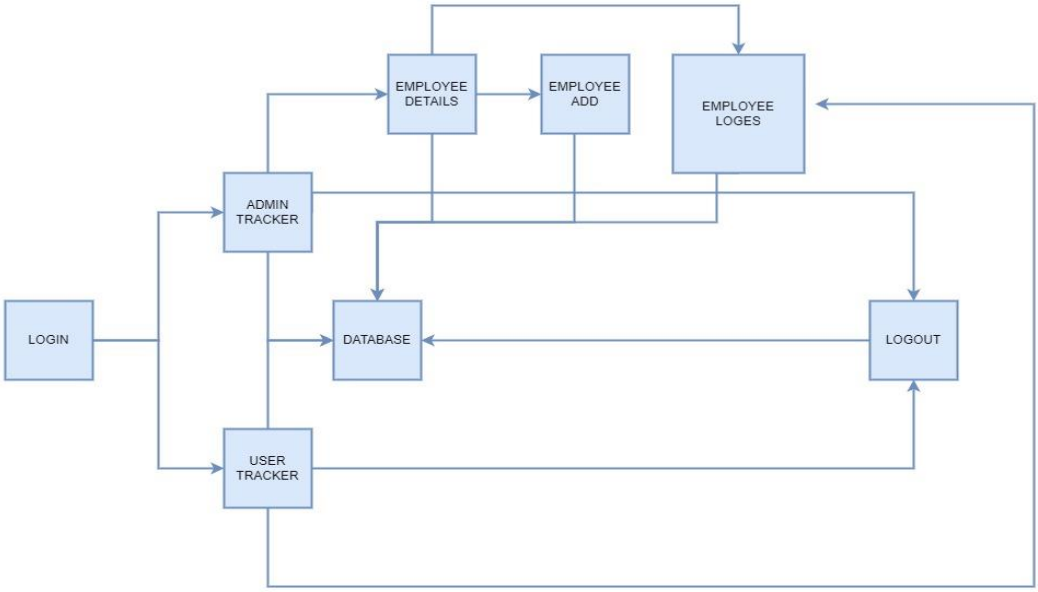
The "Settings" tab is a crucial component of the system that allows administrators to customize specific aspects of the software to meet their needs. One such setting is the "screenshot interval adjuster," which enables administrators to adjust the frequency at which screenshots are

taken. By default, the system captures screenshot every ten minutes, but this setting provides administrators with the ability to modify the interval as per their preference. For example, if an administrator wants to closely monitor a particular user, they can decrease the interval to five minutes. Conversely, if an administrator wants to monitor a user less frequently, they can increase the interval to fifteen minutes or more. This setting empowers administrators to have greater control and flexibility over the system, helping them to optimize employee productivity and ensure efficient and effective work is being performed.

1. The "screenshot interval adjuster" allows you to select the frequency at which screenshots are taken by picking the number of minutes between each capture.
2. After selecting your preferred interval, be sure to click the "Save" button to apply your changes and update the system's settings.

Appendix D

PROCESS/ DATA / INFORMATON FLOW



The flow of the system is designed to ensure a seamless experience for both the administrator and user. Upon logging in, the system performs validation to determine whether the user is an administrator or regular user. If the user is an administrator, they have full control over the system and can create new user accounts, delete user or admin account data, and make changes to the system settings.

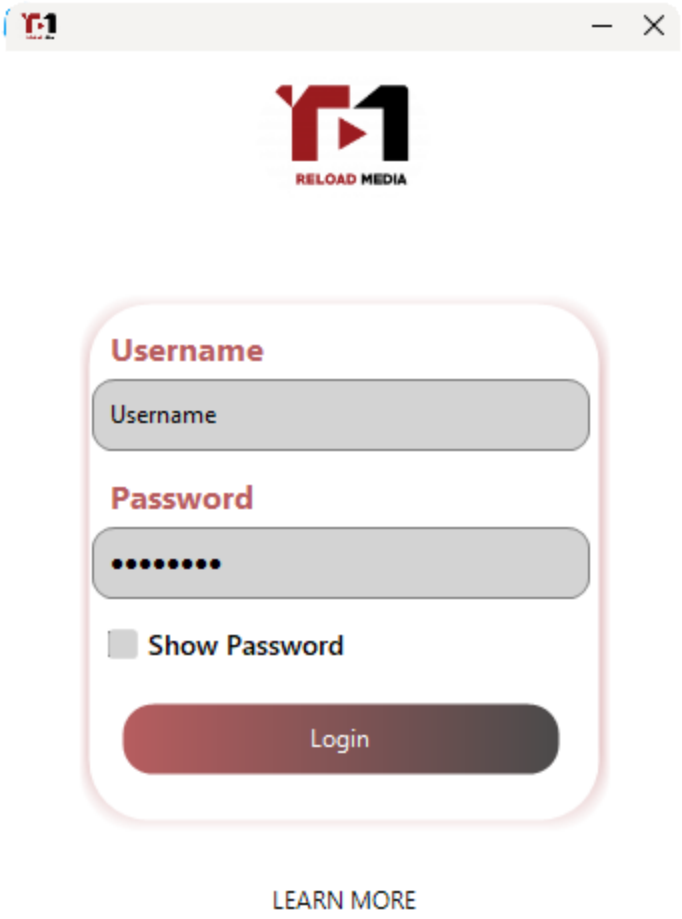
The administrator has access to various tabs such as the Administrator Details Tab, which displays user information, and the Add and Update Tab, which allows for the creation of new user accounts and updating of existing user information. The Logs Tab displays time logs and work screenshots of users, with the option to total the salary and work hours by selecting the date ranges. The Settings Tab allows for adjustments to the screenshot time intervals.

For regular users, the system provides a Time Tracker Tab, which displays time logs and work screenshots of their own account. They have no access to any administrative functions, ensuring the system's security and integrity.

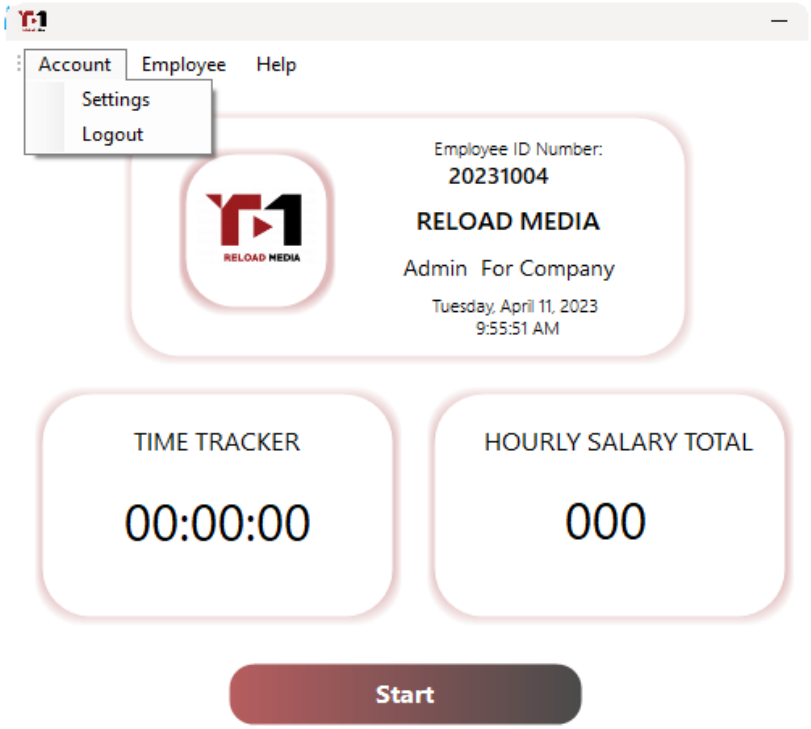
The system's intuitive flow ensures ease of use and enhances productivity, allowing administrators to focus on managing the system, while users can efficiently track their work hours and salary. With a user-friendly interface and robust functionality, this system is a valuable tool for any business that seeks to streamline their timekeeping and maximize their productivity.

Appendix E

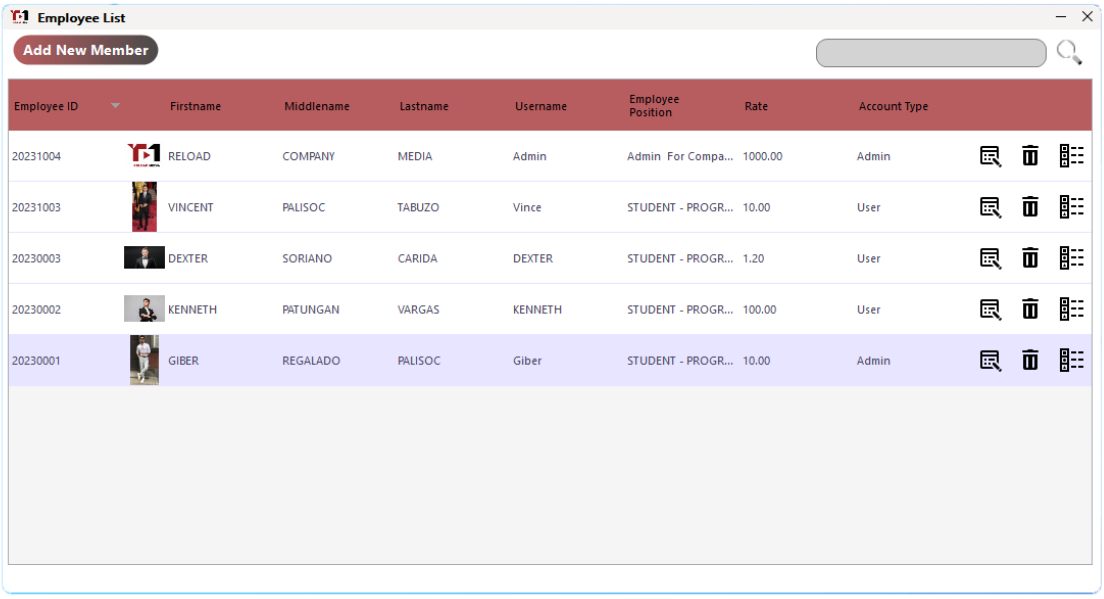
SCREEN LAYOUT

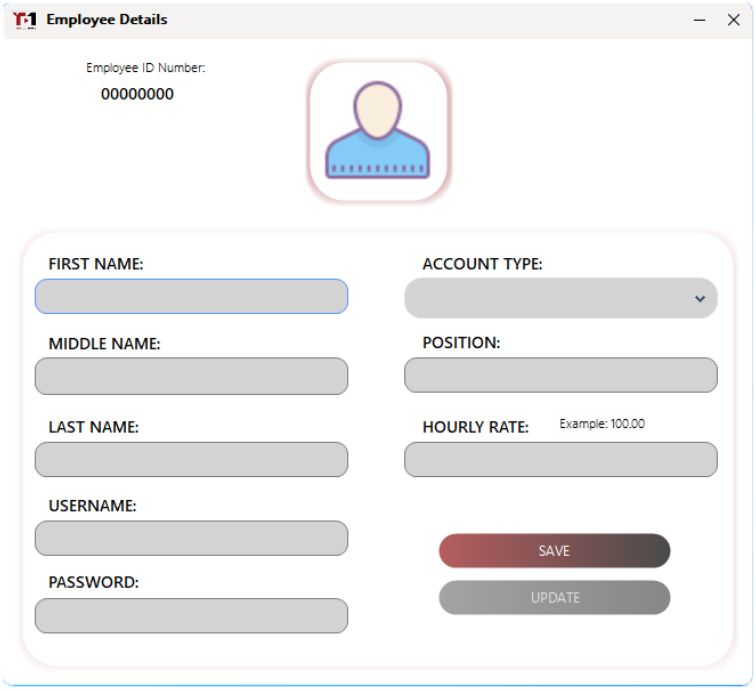

RELOAD MEDIA
Username
Username
Password
Show Password
Login
LEARN MORE

LOGIN TAB

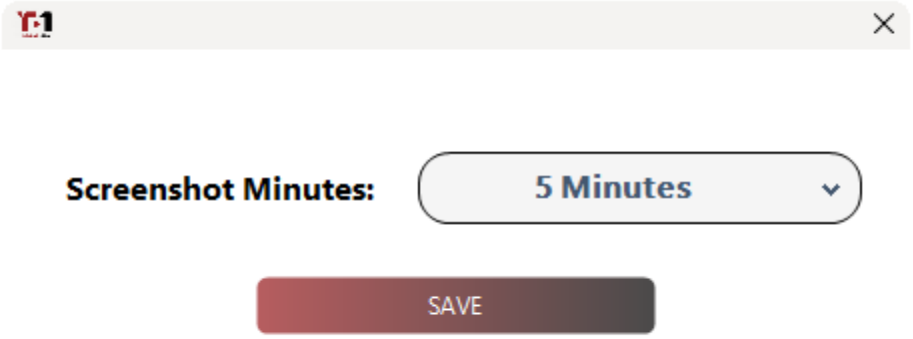


ADMINISTRATOR AND USER TIME TRACKER

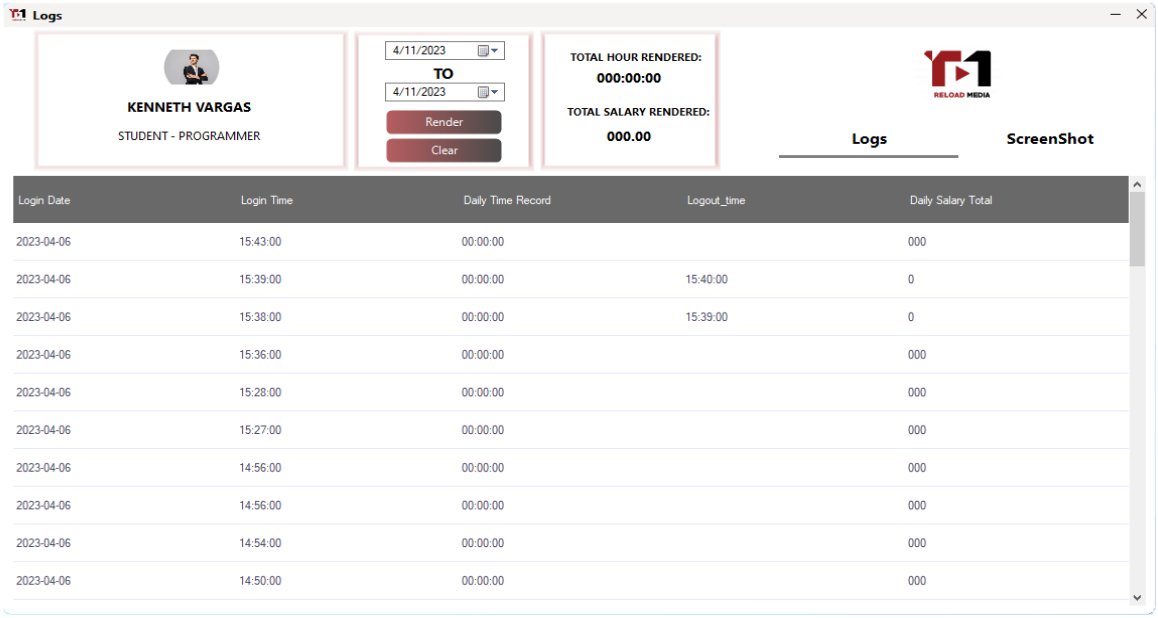




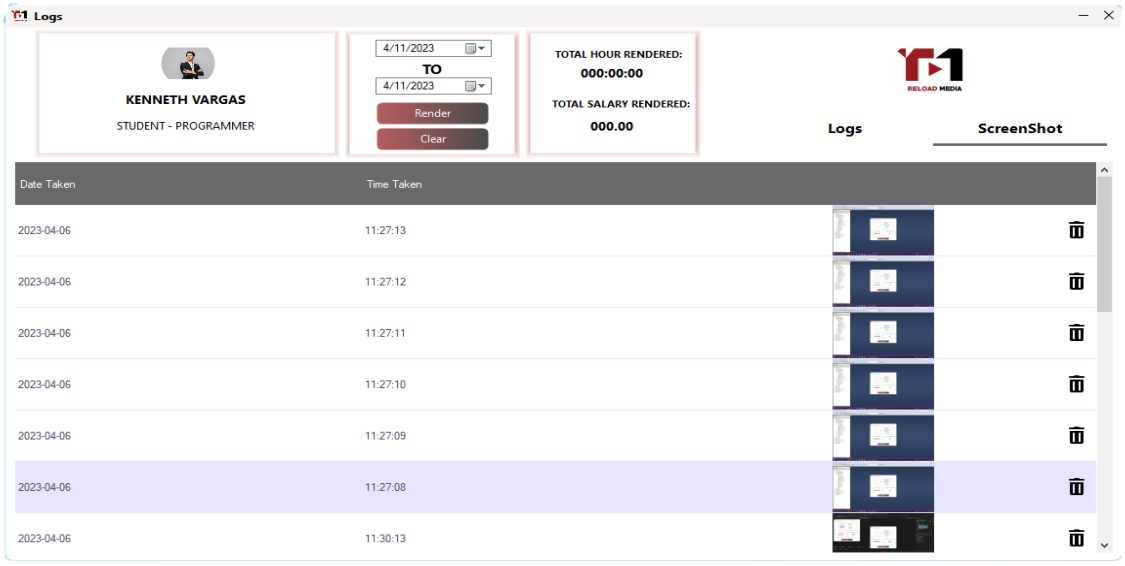
ADMINISTRATOR ADD TAB



SCREENSHOT SETTINGS



Login Date	Login Time	Daily Time Record	Logout_time	Daily Salary Total
2023-04-06	15:43:00	00:00:00		000
2023-04-06	15:39:00	00:00:00	15:40:00	0
2023-04-06	15:38:00	00:00:00	15:39:00	0
2023-04-06	15:36:00	00:00:00		000
2023-04-06	15:28:00	00:00:00		000
2023-04-06	15:27:00	00:00:00		000
2023-04-06	14:56:00	00:00:00		000
2023-04-06	14:56:00	00:00:00		000
2023-04-06	14:54:00	00:00:00		000
2023-04-06	14:50:00	00:00:00		000



Date Taken	Time Taken	
2023-04-06	11:27:13	
2023-04-06	11:27:12	
2023-04-06	11:27:11	
2023-04-06	11:27:10	
2023-04-06	11:27:09	
2023-04-06	11:27:08	
2023-04-06	11:30:13	

LOGS TA

Appendix F

TEST RESULTS

Overall System Evaluation - ISO/IEC 25010:2011

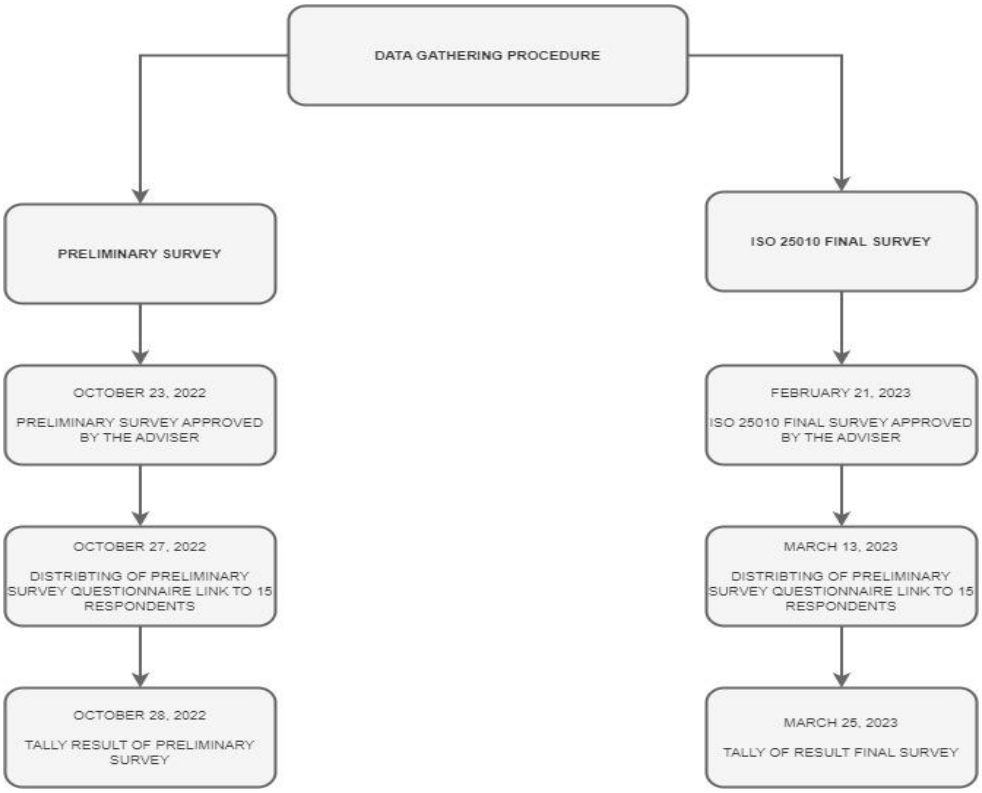
Functional suitability	SA 5	A 4	N 3	D 2	SD 1	Weighted Mean	Verbal Interpretation
1 Functional completeness	11	4				4.73	Strongly Agree (Outstanding
2 Functional correctness	9	6				4.60	Strongly Agree (Outstanding
3 Functional appropriateness	9	5	1			4.53	Strongly Agree (Outstanding
Performance efficiency	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
4 Time behaviour	10	3	2			4.53	Strongly Agree (Outstanding
5 Resource utilization	9	4	2			4.47	Agree (Very Satisfactory)
6 Capacity	9	5	1			4.53	Strongly Agree (Outstanding
Compatibility	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
7 Co-existence	7	7	1			4.40	Agree (Very Satisfactory)
8 Interoperability	7	5	3			4.27	Agree (Very Satisfactory)
Usability	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
9 Appropriateness recognizability	7	7	1			4.40	Agree (Very Satisfactory)
# Learnability	7	7	1			4.40	Agree (Very Satisfactory)
11 Operability	8	7				4.53	Strongly Agree (Outstanding
# User error protection	7	7	1			4.40	Agree (Very Satisfactory)
# User interface aesthetics	7	8				4.47	Agree (Very Satisfactory)
# Accessibility	7	8				4.47	Agree (Very Satisfactory)
Reliability	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
# Availability	9	6				4.60	Strongly Agree (Outstanding
# Fault Tolerance	9	5		1		4.47	Agree (Very Satisfactory)
# Recoverability	7	6	2			4.33	Agree (Very Satisfactory)
Security	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
# Confidentiality	9	6				4.60	Strongly Agree (Outstanding
# Integrity	8	6	1			4.47	Agree (Very Satisfactory)
# Non-repudiation	8	7				4.53	Strongly Agree (Outstanding
# Accountability	8	5	2			4.40	Agree (Very Satisfactory)
# Authenticity	6	8	1			4.33	Agree (Very Satisfactory)
Maintainability	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
# Modularity	7	5	3			4.27	Agree (Very Satisfactory)
# Reusability	8	5	2			4.40	Agree (Very Satisfactory)
# Analysability	7	5	3			4.27	Agree (Very Satisfactory)
# Modifiability	8	4	3			4.33	Agree (Very Satisfactory)
# Testability	8	6	1			4.47	Agree (Very Satisfactory)
Portability	**SA 5**	**A 4**	**N 3**	**D 2**	**SD 1**	**Weighted Mean**	
# Adaptability	8	4	3			4.33	Agree (Very Satisfactory)
# Relaceability	9	4	2			4.47	Agree (Very Satisfactory)

Characteristics	Mean	Verbal Interpretation
Functional suitability	4.6	Strongly Agree (Outstanding)
Performance efficiency	4.5	Strongly Agree (Outstanding)
Compatibility	4.3	Agree (Very Satisfactory)
Usability	4.5	Agree (Very Satisfactory)
Reliability	4.5	Agree (Very Satisfactory)
Security	4.5	Agree (Very Satisfactory)
Maintainability	4.4	Agree (Very Satisfactory)
Portability	4.4	Agree (Very Satisfactory)

The evaluation results indicate that the majority of the evaluated characteristics have an average score of 4, with strong agreement from almost all respondents. This suggests that the characteristics possess qualities that are highly valued and considered favorable. The high level of agreement among respondents regarding the evaluation results could indicate a well-executed evaluation process, where respondents had a clear understanding of the criteria and expectations. Overall, the findings suggest that the evaluated characteristics possess desirable qualities that are highly valued and recognized by the respondents. The evaluation process has been successful in capturing and communicating these attributes effectively to the respondents, leading to a consensus and shared understanding.

Appendix G

DATA GATHERING AND IMPLEMENTATION PICTURES



The figure above illustrates the method used by the researchers to collect data, which includes the dates when the questionnaires were approved by the consultant. On October 23, 2022, the advisor approved the preliminary questionnaire, which was subsequently distributed to the respondents via a link on October 27, 2022. On October 28, the results of the preliminary survey were tallied.

On February 21, 2023, the advisor approved the ISO 25010 Final Survey. Then, on March 13, 2023, the final evaluation survey was distributed to the respondents via a link. On March 25, 2023, the results of the final evaluation survey were tallie

Appendix H

ONE PAGE CURRICULUM VITAE

DEXTER S. CARIDA

Duera, Bayambang Pangasinan
09667941208
caridadexter351@gmail.com

Description

- I'm still studying in bachelor of science information technology for looking a job and increase my knowledge to pursue as become professional

Personal data

- Birth of place: Bayambang Pangasinan
- Age: 22
- Birthday: August 7,2000
- Civil status: single
- Religion: Roman Catholic
- Language: Filipino

Technical skill

- Video editing
- Photo editing
- Ms office – PowerPoint, word, google

Education

- Perpetual Help College of Malasiqui Pangasinan

DEXTER CARIDA

GIBERMAR P. REGALADO

Bachelor of Science in Information Technology

gberxx@gmail.com
(+63) 951-893-4924 (Talk'n Text)
187 Asin East Malasiqui, Pangasinan

DESCRIPTION

An Bachelor of Science in Information Technology currently studying and who is looking for a job where he can apply his honed skills and willing to learn more through professional working environment.

PERSONAL DATA

DATE OF BIRTH:	October 24, 1999
AGE:	23
HEIGHT:	171cm
WEIGHT:	51kg
CIVIL STATUS:	Single
RELIGION:	Roman Catholic
LANGUAGES:	English (B1), Filipino

EDUCATION

Perpetual Help College of Pangasinan

Bachelor of Science in Information Technology

2019-2023

Facebook

Skype: live:.cid.882593ff55a08b76

PROFESSIONAL SKILLS

- Character Excellent
- Team leader
- Creative Thinking
- Video Editing
- Photo Editing
- Web Design

TECHNICAL SKILLS

- **MS Office**

  Access, Excel, Word, PowerPoint

I hereby certify that all the Information is true and correct To the best of my knowledge.

Gibermar P. Regalado

VINCENT TABUZO

227 Bacundao East Malasiqui Pangasinan
09487400174
mayvince@gmail.com

Description

- I'm still studying in bachelor of science information technology for looking a job and increase my knowledge to pursue as become professional

Personal data

- Birth of place: Quezon City
- Age: 23
- Birthday: August 30 1999
- Civil status: single
- Religion: Roman Catholic
- Language: Filipino

Technical skill

- Video editing
- Photo editing
- Ms office – PowerPoint, word, google

Education

- Perpetual help college of Malasiqui Pangasinan

Vincent Tabuzo

VARGAS
KENNETH P.
STUDENT

CONTACT

Phone
09707937538

Email
02vargasken@gmail.com

Address
#12.mejia street poblacion malasiqui pangasinan

EDUCATION

Bachelor of science in information technology
Perpetual help college of pangasinan

LANGUAGE

- English
- Tagalog

PROFILE INFO

Birthday: May 26 2001

Age: 21

Gender: male

Hobbies: Playing basketball

WORK EXPERIENCE

work immersion of local government unit
1-2 years I'm work of municipality of mauban quezon

Construction /labor
Construction since I'm a grade 10 to grade 12

Editing the mobile phone
Like an light room, pics art ,canva,,

MY SKILLS & EXPERTISE

Graphic Design
Web Design
Video Editing

MY REFERENCE

Kenneth Vargas
Student -09707937538

Appendix I

LETTERS / TURNITIN CERTIFICATION

PERPETUAL HELP COLLEGE OF PANGASINAN
Montemayor St., Malasiqui, Pangasinan
Tel./Fax No. (075) 632 - 1040
COLLEGE OF COMPUTER STUDIES

PERMISSION TO CONDUCT A RESEARCH/CAPSTONE PROJECT

RELOAD MEDIA PTE LTD.
A1-02-10, Flexis One South, Jalan OS 2,
Taman Serdang Perdana, Seksyen 6,
43300 Seri Kembangan, Selangor Malaysia
contact@reloadmedia.com / 65 8360 8884

September 8, 2022

To whom it may concern:

In partial fulfillment of our requirements in the subject BIT 4119 Capstone Project, we, **Kenneth P. Vargas, Gibermar P. Regalado, Vincent P. Tabuzo, and Dexter Carida**, BSIT fourth year students at Perpetual Help College of Pangasinan, would like to ask for permission to conduct a capstone project entitled **"Payroll Management with Time Tracker System"**.

In connection to this, we would like to ask your good office to oversee our capstone project in your vicinity. Rest assured that the data we will gather will remain confidential and be used in academic purposes only. We believe that you are with us in our enthusiasm to complete the requirements such as to have necessary documentation as well as to develop a working system/software that will improve your reputable organization.

We are humbly hoping for your positive response on this matter. Your approval to conduct this capstone project will be greatly appreciated.

Respectfully yours,

Kenneth P. Vargas
BSIT Fourth Year Student

Gibermar P. Regalado
BSIT Fourth Year Student

Vincent P. Tabuzo
BSIT Fourth Year Student

Dexter Carida
BSIT Fourth Year Student

Noted By:

Allysa Ashley M. Palaming, MSIT
Capstone Project Subject Instructor

Approved By:

Khuren Joy B. Fullsoc
RELOAD MEDIA PTE LTD - HR Assistant

RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM

ORIGINALITY REPORT

22%	16%	4%	12%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.chanrobles.com Internet Source	7%
2	Submitted to University of Perpetual Help Sytem Laguna Student Paper	3%
3	www.researchgate.net Internet Source	2%
4	Ronald Pancho. "Performance Analysis of Mobile Payment Solutions and Services in the Philippines", 2022 2nd International Conference in Information and Computing Research (iCORE), 2022 Publication	1%
5	www.coursehero.com Internet Source	1%
6	Submitted to University of Hertfordshire Student Paper	1%
7	www.fuseworkforce.com Internet Source	1%

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Assignment title:	If it works for you then subscribe to my channel for more up...
Submission title:	RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER...
File name:	RELOAD_MEDIA_PAYROLL_MANAGEMENT_AND_TIME_TRACK...
File size:	5.46M
Page count:	58
Word count:	5,584
Character count:	31,017
Submission date:	11-Apr-2023 08:17AM (UTC-0700)
Submission ID:	2061623485

Perpetual Help College of Pangasinan
Montemayor St., Malasiqui Pangasinan

COLLEGE OF COMPUTER STUDIES

Chapter I

INTRODUCTION

1.1 Project Context

Payroll management is an essential aspect of any organization's operations. It involves tracking and managing employee time and compensation, which is crucial for ensuring accurate payment and compliance with labor laws. In the past, these functions were performed manually, which was time-consuming and prone to errors. However, with the advent of technology, organizations can now automate payroll management and streamline the process.

Time and attendance management is the foundation of payroll management. It involves recording the time employees spend at work, including clocking in and out, breaks, and time off. In the past, this was done using physical timecards or paper-based systems. However, today, most organizations use electronic systems that automate time and attendance management. These systems are more efficient and accurate, and they reduce the risk of errors associated with manual processes.

Automated payroll management systems offer several advantages over manual processes. They can help reduce administrative costs and time spent on payroll management. They can also help reduce errors and increase accuracy in calculating

Appendix J

USER ACCEPTANCE TESTING (UAT)

TESTING PLAN

RELOAD MEDIA PAYROLL MANAGEMENT AND TIME TRACKER SYSTEM

Perpetual Help College of Pangasinan

College of Computer Studies

CARIDA, DEXTER

REGALADO, GIBERMAR P.

TABUZO, VINCENT P.

VARGAS, KENNETH P.

Introduction

This document describes the methods and procedures for testing the Reload Media Payroll Management and Time Tracker System. To ensure the successful completion of the testing, Capstone Group 3 is required to carry out all tests and obtain successful results. A test can result in either a pass or fail outcome and if any test fails, the entire sequence will be considered as failed. Before granting the SIGN-OFF, written copies of all identified problems must be submitted to RELOAD MEDIA SDN BHD, and all issues must be resolved.

I. Project Description

The Reload Media Payroll Management and Time Tracker System is designed to automate the counting of time tracker, with a function that automatically calculates the user's hourly rate. In addition, the system includes the feature of automatic screenshots.

II. Test Team Personnel

The test team comprises Gibermar P. Regalado as the operator and two witnesses who have the authority to sign off the tests. Additionally, a small number of agreed-upon customer observers may optionally observe the tests and provide their observations to the primary witnesses.

Name	Role	Company
Gibermar P. Regalado	Operator	Vendor
Kenneth P. Vargas	Primary Witness	Vendor
Kharen Joy B. Palisoc	Secondary Witness	Pilot Area Personnel

Capstone Group 3

Name	Department	Role
Kenneth P. Vargas	College of Computer Studies	Project Leader
Gibermar P. Regalado	College of Computer Studies	Project Assistant Leader
Dexter S. Carida	College of Computer Studies	Project Member
Vincent P. Tabuzo	College of Computer Studies	Project Member

Integration Testing

- Installing the system to ensure it is working properly
- Running the system to verify that it is functioning correctly.
- Testing system interfaces and interactions.
- Validating data flow between system components.
- Verifying system compatibility with external systems or platforms.

System Test

- Test if the System complied with the specified requirements.

All test taking place during acceptance testing outline in this section.

#	Test Description	Expected Result	Result (Passed/Failed)
	SYSTEM TESTING	System functions reboot	PASSED
	FUNCTION TESTING	System is able to lock, unlock, record user login	PASSED
	SOFTWARE TESTING	Main program function	PASSED
	DATABASE TESTING	Database able to store data	PASSED
	DATA HANDLING TESTING	Database able to display data	PASSED
	SAFETY TESTING	Data security properly enforced	PASSED

I. System Testing

System testing is defined as testing of a complete and fully integrated software product. This testing falls in black-box testing wherein knowledge of the inner design of the code is not a pre-requisite and is done by the testing team.

#	Test Description	Expected Result	Result (Passed/Failed)
1	Compatibility of PMTTS with Operating System	Installation on Windows 11 and Windows 10	PASSED

II. Functional Testing

Functional testing describes how to test everyday use, each workflow step for every protocol will be tested. The following tables are workflows broken up by protocol, and their contents are the test descriptions for each respective protocol

#	Test Description	Expected Result	Result (Passed/Failed)
1	Login to the account	Successful login with access to the user's account information.	PASSED
2	Time counting function	Accurate tracking of time worked by the user.	PASSED
3	Hourly counting function	Accurate calculation of hourly pay based on time worked.	PASSED
4	Notification alerts	accurate alerts for idle and forgotten to start	PASSED
5	Screenshot feature	Capturing and storing of screenshots at regular intervals, allowing for monitoring of the user's work activities	PASSED
6	Adding new User	Successful creation of a new user profile with all relevant information accurately recorded.	PASSED
7	Updating data	Accurate updating of user information, including name, contact information, and payment details.	PASSED
8	Deleting Data	Successful deletion of user information with no loss of data or impact on other users.	PASSED
9	Total hours rendered	Accurate calculation and display	PASSED

		of total hours worked by the user.	
10	Total salary rendered	Accurate calculation and display of total salary earned by the user based on hours worked and hourly pay rate.	PASSED
11	Screenshot Viewer	Clear and accurate display of stored screenshots for monitoring and review purposes.	PASSED

III. Software Testing

Each software component provided by Capstone Group 3. must be tested and perform to the expected standards outlined in the table below. It is expected that several bugs or unexpected behaviors may occur during testing. Any bug, unexpected behavior, or missing functionality will be documented as a deficiency. Each software deficiency must be resolved and tested prior to SAT or sign-off unless agreed upon in writing by both parties. If the number of deficiencies is greater than 10 then Perpetual Help College of Pangasinan will retain the right to postpone or fail the entire testing sequence if they desire.

#	Test Description	Expected Result	Result (Passed/Failed)
1	Login functionality	Successful login with access to the user's account information.	PASSED
2	Data input validation	System should reject invalid or incomplete input, and prompt the user for correction.	PASSED
3	System response time	System should respond quickly and efficiently to user input, with no excessive lag or delay.	PASSED

4	Error handling	System should be able to identify and handle errors, display appropriate error messages to the user, and allow for error correction.	PASSED
5	Functionality testing	All features and functions of the software should perform as intended, without errors or bugs.	PASSED
6	Compatibility testing	Software should be compatible with a variety of systems and programs, without any loss of functionality or performance.	PASSED
7	Security testing	Software should provide robust security features, protecting user data and preventing unauthorized access to the system.	PASSED
8	Usability testing	Software should be easy to use, with intuitive navigation and clear, well-designed user interfaces.	PASSED

IV: Database Testing

Each database component provided by Capstone Group 3 must be tested and perform to the expected standard outlined in the table below. Any bug unexpected behavior, or missing functionality will be documented as a deficiency. Each database deficiency must be resolved and tested prior to SAT or sign-off unless agreed upon in writing by both parties.

#	Test Description	Expected Result	Result (Passed/Failed)
1	Verify if the user login	User login details should be saved	PASSED

	details are saved correctly in the database.	accurately in the database without any errors.	
2	Test if the time render and hourly render data entered by the user are saved in the database.	The time render and hourly render data entered by the user should be saved accurately in the database without any errors. The changes should be reflected in the database.	PASSED
3	Check if the screenshot is saved in the database and can be retrieved accurately.	The screenshot should be saved accurately in the database and can be retrieved without any errors.	PASSED
4	Test if user logout details are saved correctly in the database.	User logout details should be saved accurately in the database without any errors.	PASSED

V: Database Handling Test

Each database component provided by Capstone Group 3 must be tested and perform to the expected standard outlined in the table below. Any bug unexpected behavior, or missing functionality will be documented as a deficiency. Each database deficiency must be resolved and tested prior to SAT or sign-off unless agreed upon in writing by both parties.

#	Test Description	Expected Result	Result (Passed/Failed)
1	Test database connection and functionality	Successful connection and functionality of the database	PASSED
2	Verify data can be added, updated, and deleted from the database	Accurate addition, updating, and deletion of data from the database	PASSED
3	Test data retrieval from the database	Accurate retrieval of data from the database	FAILED

Kharen Joy B. Palisoc
Human Resource Manager

Appendix K

MEMORANDUM OF UNDERSTANDING (MOU)

Perpetual Help College of Pangasinan
Montemayor St., Malasiqui, Pangasinan

COLLEGE OF COMPUTER STUDIES

UNDERGRADUTE THESIS/ CAPSTONE PROJECT

MEMORANDUM OF UNDERSTANDING

Date: April 30, 2023

To: Kharen Joy B. Palisoc, HR Manager

From: Dexter S. Carida, Gibermar P. Regalado, Vincent P. Tabuzo, Kenneth P. Vargas

Re: Memorandum of Understanding for BSIT - PHCP College of Computer Studies

---

Title of the System: Reload Media Payroll Management and Time Tracker System

Capstone Adviser: Mr. Kristan Marko D. Crisostomo

System Developers: Dexter S. Carida, Gibermar P. Regalado, Vincent P. Tabuzo, Kenneth P. Vargas

Company Name/Pilot Area: RELOAD MEDIA SDN BHD

Company Address/Pilot Area: A1-02-10, Flexis One South, Jalan OS 2, Taman Serdang Perdana, Seksyen 6, 43300 Seri Kembangan, Selangor Malaysia

Main Information:

The Thesis/ Capstone Project - Software system is one of the major requirements of 4-year students of Bachelor of Science in Information Technology in their Thesis/ Capstone Project subject. After the Final Defense of the students/developers, the fully functioning system software should be turned over to the respective pilot areas as selected by the students/developers of the system/software.

The system/software that will be given to the pilot area is for FREE including the hardware needed (if any) unless the hardware is sponsored by the pilot area based on the previous verbal agreement. The Thesis/ Capstone Project is for the students to evaluate their skills

1

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Montemayor St., Malasiqui, Pangasinan

COLLEGE OF COMPUTER STUDIES

in creating system/software and to provide technology modernization/innovation for the pilot area.

Final evaluation, surveys, and implementation of the system/software will be applied to the pilot area for future use. Expected date of implementation should be on or before April 2023. Once the system/ software is fully implemented by the company pilot area, added revisions or reconstruction of the system software (a month after the implementation) will be based on another agreement by the pilot area and the developers of the system/software.

Agreements:

The student developers agree to implement the system software to the pilot area as their major requirement in Thesis/ Capstone Project, provides hardbound manuscript and the system/software user's manual, and provides training plan for the administrator and users of the system/software.

The adviser agrees to support, assist and provide enough time for observing/ managing the implemented output or system/software.

The subject professor agrees to support, check for implementation/ system software turn over, and communicate with the pilot area for the implementation of the system/ software.

This agreement should take effect upon signing of the parties. Done this ____ day of __ in the year _____ at _____.

1

Perpetual Help College of Pangasinan
Montemayor St., Malasiqui, Pangasinan

COLLEGE OF COMPUTER STUDIES

Student Developers:

Dexter S. Carida

Gibermar P. Regalado

Vincent P. Tabuzo

Kenneth P. Vargas

Capstone Adviser:

Mr. Kristan Marko D. Crisostomo

Capstone Subject Professor:

Mr. Kristan Marko D. Crisostomo

Perpetual Help College of Pangasinan
Malasiqui, Pangasinan
College of Computer Studies

1