

Promoter Information Management System

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Abstract

Dade Gifting Sdn. Bhd. is a business experienced in giving cultural and holiday gifts. The organization currently uses WhatsApp groups to manage organizers and monitor activities and sales results. However, this manual approach is ineffective and error-prone, which causes limited data collection and analysis, time-consuming tracking processes, missing official employment documents, and misunderstandings. Therefore, a web-based Promoter Information Management System (PIMS) was built to help organizations overcome these barriers and expand their operations. User login and registration, attendance and task tracking, inventory management, sales and performance analysis, and employment paperwork are just some of the services that PIMS will offer. Following Agile methodology and tools like Visual Studio Code, XAMPP, and phpMyAdmin, the system is expected to improve promoter management, optimize business processes, and enhance business strategy. Thus, this system is expected to improve procedures, reduce expenses, improve customer satisfaction, and increase brand exposure, which contributes to a significant advancement of business expansion.

1. Introduction

In the realm of marketing and product promotion, promoters, also known as product demonstrators, play a crucial role. As experts in marketing, they are responsible for effectively presenting product features and benefits to potential customers. They are often employed by companies that engage in production or sales, and they help potential consumers gain a deeper understanding of product benefits [1]. Besides, promoters usually work across various environments, such as trade fairs, retail stores, and online channels, where they directly interact with customers by explaining product benefits or demonstrating product features [2]. This interaction is particularly important in the constantly expanding retail industry, as promoters connect consumers with products of interest [3].

Dade Gifting Sdn. Bhd is a firm that specializes in providing high-quality presents for celebrations and cultures [4]. To promote its products, the company runs temporary shops and activities around major holidays like Christmas, Hari Raya, Mid-Autumn Festival, and Chinese New Year. A group of promoters is employed by Dade Gifting to efficiently present and advertise their latest products. However, management relies on this group-based WhatsApp system to manage promoters and monitor their activities including communicating, tracking attendance, and generating daily sales reports. This decentralized, manual procedure has limitations and difficulties.

The current approach causes several challenges. Miscommunication and information loss occur due to the high volume of messages within a crowded group. There is a high possibility of important information easily getting lost or overlooked, leading to potential misunderstandings and inaccurate data records. Besides, the tracking process is time-consuming and inefficient, when relying on manual searches through extensive message

histories to track information. In addition, the lack of formal employment documentation for short-term promoters will lead to uncertainty regarding salary payment and rights protection. Moreover, the current approach is limited to data retrieval and analysis, since WhatsApp group messages are not structured, all the related data are mixed with general communication, and lack of standardized formatting, which leads to inconsistencies in how data is presented. Thus, it restricts the company's ability to make further decisions and identify business trends.

Therefore, a Promoter Information Management System (PIMS) is built as a solution to overcome the above challenges. This system aims to design a PIMS for Dade Gifting Sdn. Bhd. based on a structured approach, develop a web-based PIMS system, and test the usability and functionality of the developed system. There are three target users for the system, including the company's owner serves as administrator, along with the manager and any promoters. The features offered by the new system include user login and registration, attendance and task tracking, inventory management, sales and performance analysis, and employment paperwork. The implementation of a systematic PIMS enhances the efficiency of managing promoters and overall business operations. By addressing current issues and optimizing processes, the system is expected to reduce costs, improve customer satisfaction, increase brand awareness, and contribute to effective business strategy planning. Thus, this system is vital to ensure the company has better data management solutions to enhance operational efficiency, maintain data integrity, and improve overall decision-making to expand its business growth.

This paper consists of five sections. Section 1 describes the project background. Next, Section 2 covers the related works. Besides, Section 3 elaborates on the methodology applied and the system analysis and design of the proposed system, while Chapter 4 summarizes the results and outputs of the proposed system. Lastly, Section 5 gives the conclusion on the current works and highlights the future work to be performed in the implemented system.

2. Related Work

One of the most significant economic sectors is the retail industry, which is also one of the fastest growing. Promoters are crucial to the retail sector because they help potential customers find things that they might be interested in. Events, pop-up shops, in-store promotions, and product demonstrations are all excellent venues for promoters to display their prowess and expertise. These occasions may also contribute to the product's excitement and buzz, which may boost sales [5]. Due to its involvement in consumer access, market competition, and economic impact [6], the retail sector is crucial to both the economy and society. In this industry, promoters play a significant role and are crucial to the success of many businesses.

In Seri Kembangan, Selangor, Malaysia, Dade Gifting Sdn. Bhd. is a business that specializes in offering a wide range of cultural and festive gifts with a first-rate gifting experience. Some of the services provided by the company include custom corporate gifting, holiday gift box design, personalized gifting, and retail gift boxes. As of right now, the business manages its promoters through WhatsApp groups, taking care of chores like attendance tracking, communication, and sales reporting. Once the event is around the corner, the business will hire new promoters and create a group on WhatsApp. Each temporary store from a different venue is promoted by its promoters starting from the first day until the last day of the event. Then, the sales report is recorded by promoters manually in a logbook including inventory flow and total sales. At the end of each day, promoters will finalize the sales report and send it to the business's WhatsApp group. The manager will verify and use the data kept in the WhatsApp group to reference when creating the detailed sales report in a spreadsheet. These reports detail product costs, promotional activity, and inventory flow. Once the event is ended, the manager will wrap up all the facts and give the owner of the business a report.

However, this WhatsApp group-based management strategy has several drawbacks. It first results in misunderstandings and information loss due to many messages being exchanged in a large group. Important information is likely to be lost or missed quite easily. Because of misunderstandings and erroneous data records, this may cause promoters, managers, and the owner to miscommunicate with one another. The tracking procedure also takes a lot of time. When they must manually go through old mail and scroll back to track information, it is time-consuming and ineffective. When more messages are being sent, it becomes difficult. Additionally, the promoter has no official work documentation. Because they are only recruited for a brief time, promoters are frequently hired without proper letters or documents. Uncertainty about wage payments and the defense of the promoter's rights will result from this. Finally, it can only be used to retrieve and analyze important data. Looking at the situation of the current data management strategy in this business, they need to address the above issues. Thus, a Promoter Information Management System (PIMS) for Dade Gifting Sdn. Bhd. is proposed to be developed. The PIMS will employ an information management system.

An Information Management System (IMS) is a system about collecting, storing, data maintenance, and all kinds of information [7]. It also includes how information is shared, saved for the long term, and eventually removed when it is no longer needed [8]. It sets the rules for handling data, ensuring full analysis and understanding all the information to make the most beneficial decision [9]. The key features of IMS include data

collection, storage, processing, distribution, and accessibility of information [10]. This IMS enhances decision-making, increases efficiency, improves service quality, and supports the achievement of business goals by providing stakeholders with relevant information. To understand the architecture of an information management system, including data sources, data storage, data access, data processing, and data integration. These components work together to ensure the smooth management of information within an organization.

Therefore, the main reason why the IMS method will be employed in the proposed system is due to the promoter information management system is quite like the IMS method. The only difference of PIMS is that the information obtained is regarding promoter performance, daily sales reports, and warehouse stock. In addition, to aid the company in processing a large amount of information, data integration and data processing is a useful and vital function as it aid the company in understanding which products are best sellers [11]. By doing so, the company owner could manipulate the marketing strategies according to the results from the system. Furthermore, the information from the system after data processing could also help them to make decisions and further improve marketing strategies. Lastly, information accessibility is also a suitable function for the promoter management system due to certain data only can be accessed by the company owner and manager while the promoter cannot access it. Therefore, the data accessibility feature based on worker position categorization is very suitable for the promoter management system. Thus, the IMS method is very suitable to be employed in the proposed system.

For comparative study, there are three related systems available in the market that were selected. Each function in the system is examined, namely B2Field, FieldCheck, and Zoho Inventory. B2Field is an automated system for managing a mobile workforce that provides a few features to aid companies in running their operations [12]. It focuses on managing staff members who are frequently on the go, such as field reps, delivery drivers, technicians, etc. This system features mobile form, task scheduling, and GPS position tracking, among other things. On the other hand, FieldCheck is an application that offers a range of functions to help businesses manage their field operation [13]. There are some functions offered by this application such as the ability to track promoters' working time and location via GPS, provide digital checklists to audit PG performance, and support timely incident detection. Furthermore, Zoho Inventory is an inventory management software designed to help small and growing businesses effortlessly manage their inventory across multiple channels and devices [14]. There are some functions offered by this application such as the login or sign-in page, easy sales tracking, and warehouse control. The comparisons between current similar systems and the proposed system will be done and depicted in **Table 1**.

Table 1 System Comparison

System	B2Field	FieldCheck	Zoho Inventory	Promoter Information Management System
Login/Sign in	√ (email address and password)	X	√ (email address, company name, and password)	√ (username and password)
GPS Tracking	√	√	X	√
Task Scheduling	√	√	X	√
Mobile Forms	√	√	√	√
Digital Checklists	√	√	X	√
Warehouse Control	X	X	√	√
Easy sales tracking	√	√	√	√
Support timely detection	X	√	X	√

3. Methodology

Agile development methodology is used in this project. This approach is well-suited for the project due to it allowing for iterative development, focus on collaboration, and flexibility and adaptability to change requirements and user needs [15]. Agile development methodology emphasizes delivering incremental value to users, gathering frequent feedback, and making continuous improvements. It is aligned with the goals of developing a Promoter Information Management System that meets the business goals and needs of Dade Gifting Sdn. Bhd. precisely. **Table 2** shows the tasks carried out by Agile Methodology to develop Promoter Information Management System (PIMS).

Table 2 *Software development activities*

Phase	Task	Output
Planning	Propose the project, define project background, problem statement, objectives, scope, and project significant, conduct interviews and create a Gantt chart.	Proposal, Gantt chart
Analysis	Determine the system requirements and modules as the problem solution, analyze the company's management and workflow	System requirements, Context diagram, DFD diagrams, ERD Diagram, and Flowchart
Design	Design the user interfaces and implement each function according to the latest requirements from the customer	System architecture, Database schema, and data dictionaries, and user interfaces design
Development	Write coding according to system functionalities	Source code that implements the system's functionalities
Testing	Conduct system testing, analyze testing results, and finalize the report.	Testing results, final project report
Review and refine	Any modification is needed to add on or remove requirements.	Reviews and modification record
Implementation	Develop the final system, together with the modules, and update the proposed system based on the review	System program with functions
Deployment	Deployment of the system from the user	Deployment of the system result

Table 3 *Functional Requirements*

Modules	Functionalities
1. User login and registration	<ul style="list-style-type: none"> - The system should manage new user registration and account creation, including roles such as administrator, manager, and promoters. - The system should provide a secure user login mechanism for registered users.
2. Attendance and Task Tracking	<ul style="list-style-type: none"> - The system should enable promoters to electronically log their daily attendance. - The system should allow managers to assign tasks to promoters, monitor task progress, and ensure timely completion. - The system should support daily task assignments for promoters, including activities like stock counting, reporting, and product feedback.
3. Inventory Management	<ul style="list-style-type: none"> - The system should enable administrators and managers to monitor inventory levels. - The system should send notifications for restocking when inventory shortages occur. - The system should include Gift with Purchase (GWP) tracking in stock counting.
4. Sales and Performance Analysis	<ul style="list-style-type: none"> - The system should generate sales reports to provide insights into sales performance. - The system should allow monitoring of promoter performance. - The system should support the management of performance incentives, including awards. - The system should automatically calculate commissions based on predefined rates. - The system should allow administrators to award high-performing promoters.
5. Employment Documentation	<ul style="list-style-type: none"> - The system should produce employment documentation, such as contracts and agreements. - The system should provide a feature to store and manage employment documentation within the system.

3.1 System Requirements

Functional and non-functional requirements, user requirements, and system requirements are all part of the system requirements. The system's functional modules include user login and registration, attendance and task tracking, inventory management, sales and performance analysis, and employment documentation. **Table 3** and **Table 4** show the functional and non-functional requirements for the proposed system.

Table 4 *Non-Functional Requirements*

No.	Requirements	Description
1.	Operational	<ul style="list-style-type: none"> - The system should be user-friendly. - The system should be easy to update and maintain. - The system should be designed to support an increasing number of users. - The system should be compatible with most Web browsers.
2.	Performance	<ul style="list-style-type: none"> - The system should be available 24 hours per day. - Any interaction between the user and the system should not exceed 2 seconds. - The system should easily access to Internet.
3.	Security	<ul style="list-style-type: none"> - Only the administrator can see other privileged users' records. - The system should implement password complexity rules, such as minimum length, and special character requirements to enhance user account security.

The user requirements are explained in **Table 5**. The users of the system consist of promoters, managers, and company owners as administrator.

Table 5 *User requirements*

No.	User Requirements
1	User should be able to input the user's ID and password to log into the system.
2.	User should have their role assigned by the system.
3.	User should have visibility into inventory levels.
4.	User should be able to submit for their assigned tasks in the system.
5.	User should be able to log out of the system.
6.	Promoters should be able to log their daily attendance electronically.
7.	Promoters should be able to view their assigned tasks in the system.
8.	Promoters should be able to view the status of their assigned tasks.
9.	Promoters should be able to view their performance metrics.
10.	Managers should be able to assign tasks to promoters.
11.	Managers should be able to monitor the progress of tasks assigned to promoters.
12.	Managers should be able to monitor promoter performance.
13.	Administrator should be able to input the admin's ID and password to log into the system.
14.	Administrator should be able to create a new user account.
15.	Administrator should be able to assign roles to users in the system.
16.	Administrator should be able to assign tasks to users.
17.	Administrator should be able to view all data input by the user.
18.	Administrator should be able to log out of the system.

3.2 System Analysis

Context diagrams present an overview of the interaction between the system and its user. Context diagrams also show the input and output to and from its user and system. **Figure 1** shows the context diagram of the Promoter Information Management System and **Figure 2** shows the Data Flow Diagram Level 0 of the developed system, Promoter Information Management System (PIMS).

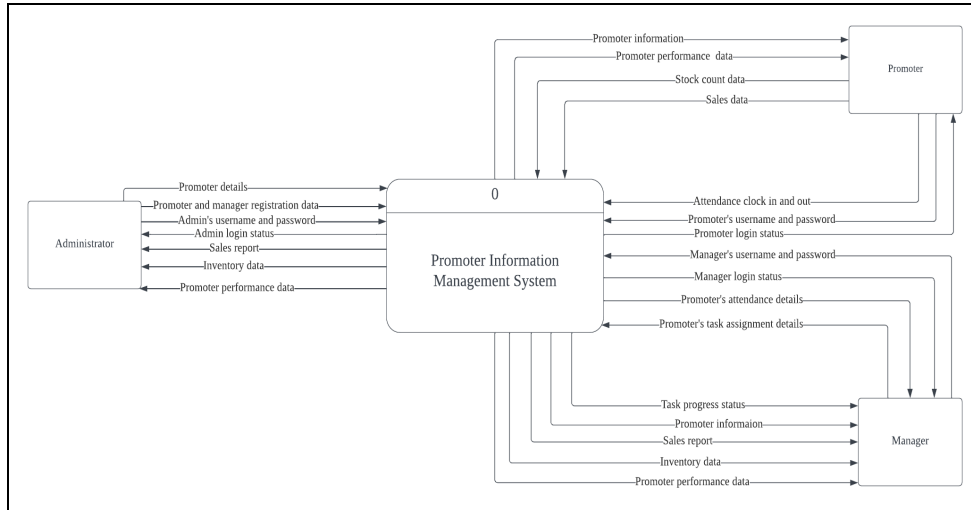


Fig. 1 Context Diagram

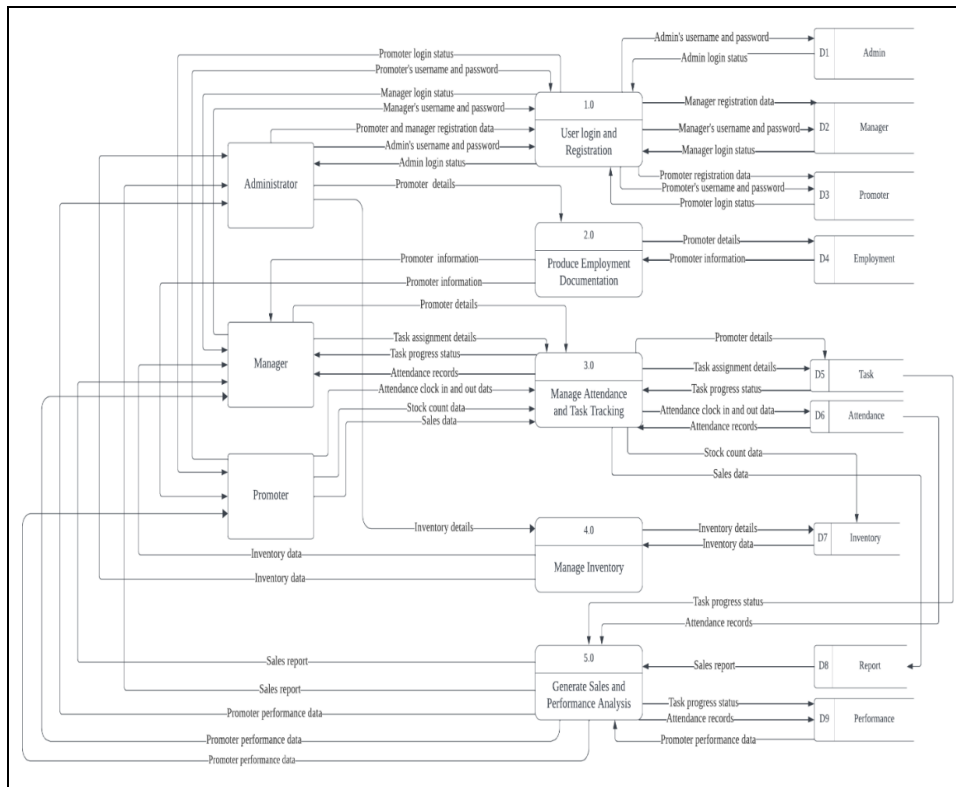


Fig. 2 Data Flow Diagram Level 0

Entity Relationship Diagram (ERD) is a graphical representation that used to describe or explain the components or procedures involved in database design [16]. It shows all the entities are connected to the attribute with a connector to clearly explain the relationship using business rules. There are three main components in ERD including entities, attributes and relationships. **Figure 3** shows the ERD for Promoter Information Management System (PIMS).

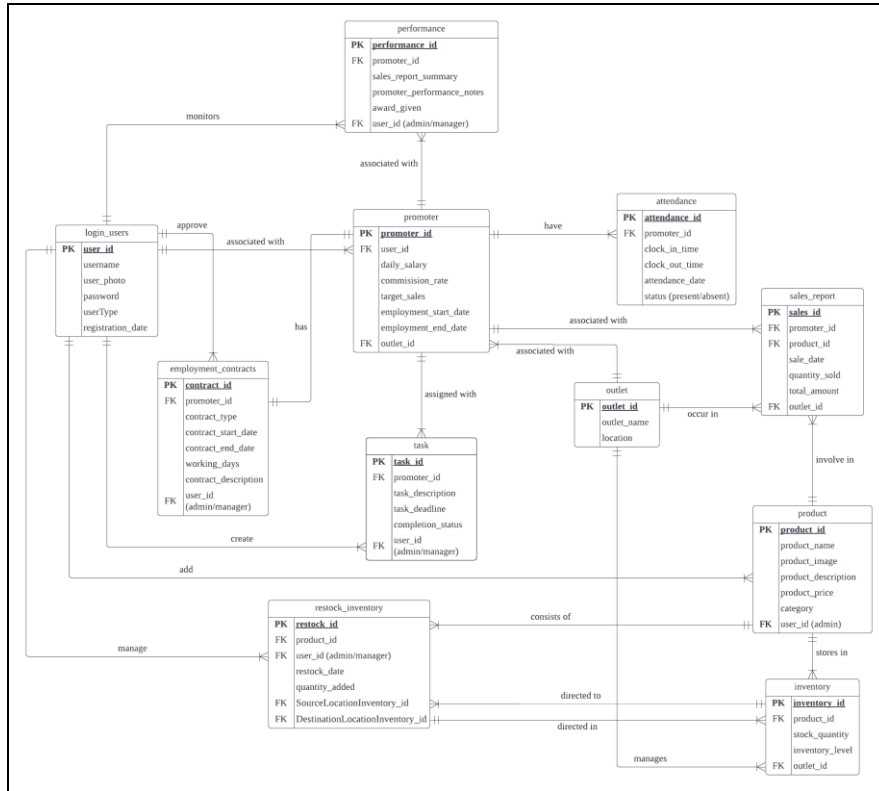


Fig. 3 Entity Relationship Diagram

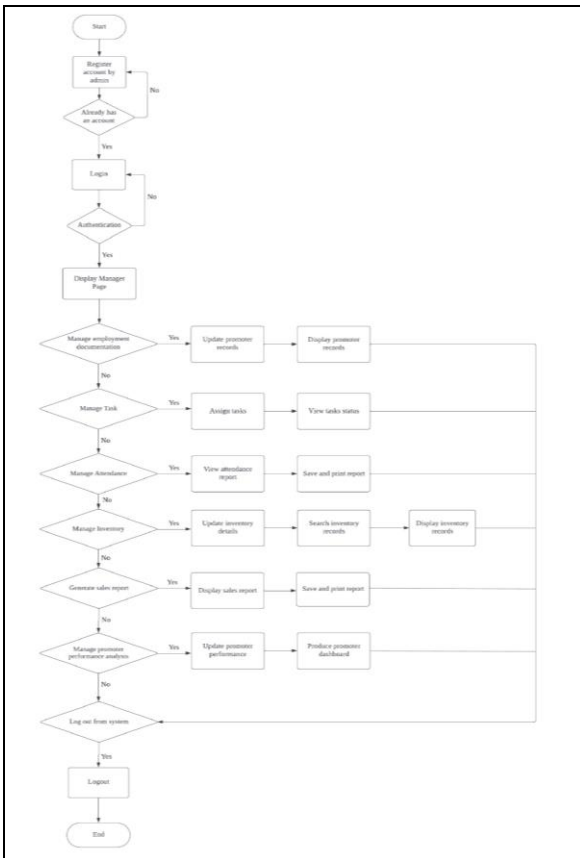


Fig. 4 Flowchart of PIMS for Administrator

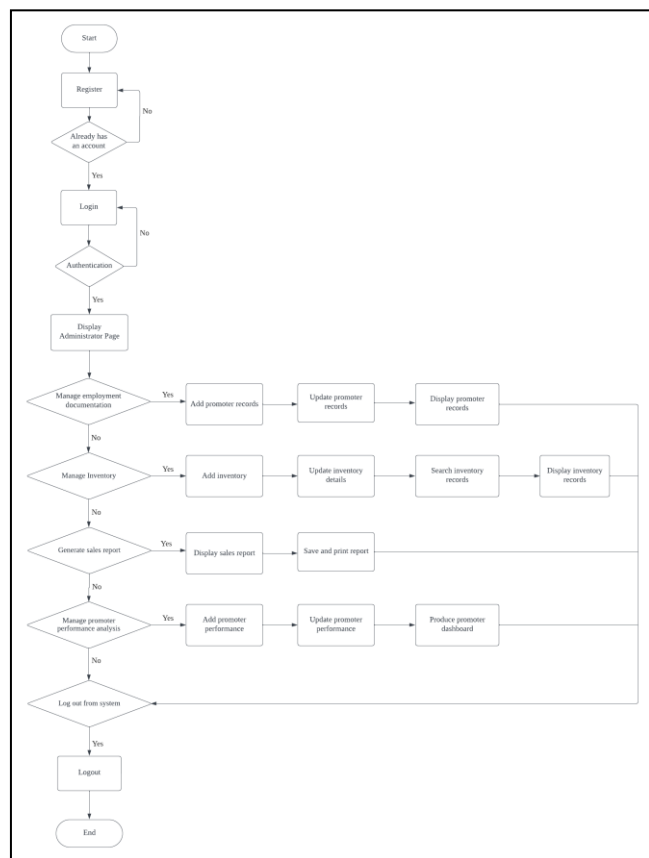


Fig. 5 Flowchart of PIMS for Manager

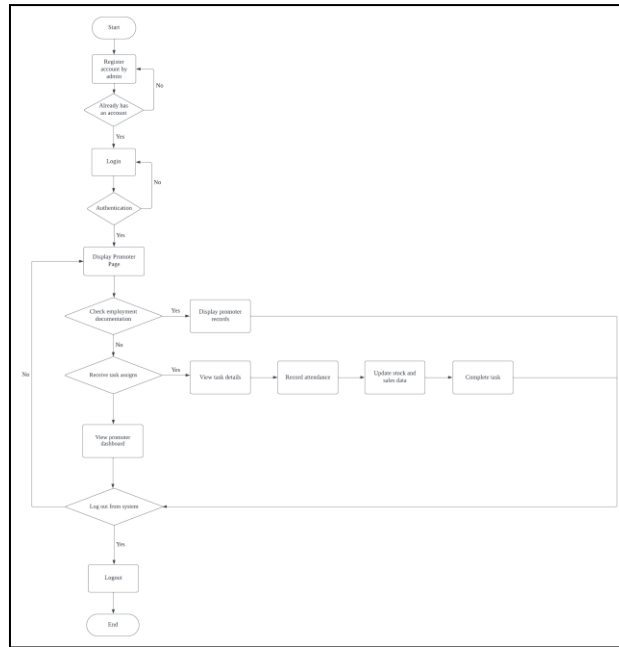


Fig. 6 Flowchart of PIMS for Promoter

A flowchart is a type of diagram that represents a workflow, or processes involved in the system. Each process step is represented by a specific symbol with a brief explanation of the stage. Therefore, the availability of a flowchart acts as a reference on how processes of the system should perform clearly. **Figure 4**, **Figure 5**, and **Figure 6** illustrate the system flow of processes for administrator, manager, and promoter respectively for Promoter Information Management System (PIMS).

3.3 System Design

During the design phase, the system’s desired functionalities and modules were identified. In this phase, the design has covered both user interface design and database design for the system architecture to help visualize the system. **Figure 7** shows the system architecture design of PIMS. In addition, the user interface of the system is shown in **Figure 8** to **Figure 14**.

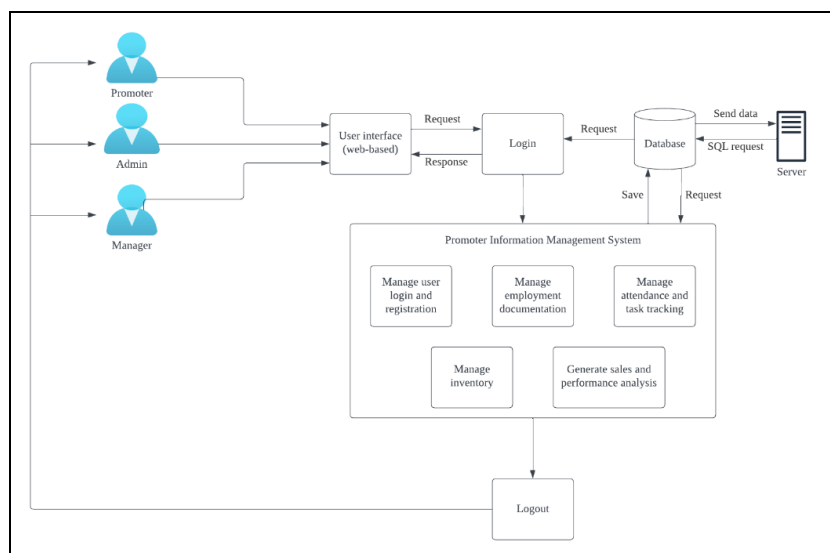


Fig. 7 System Architecture for PIMS

The relational schema for database tables is listed as follows:

- i. login_users (user_id, username, user_photo, password, userType, registration_date)
- ii. promoter (promoter_id, user_id (FK), daily_salary, commission_rate, target_sales, employment_start_date, employment_end_date, outlet_id (FK))
- iii. employment_contracts (contract_id, promoter_id (FK), contract_type, contract_start_date, contract_end_date, working_days, contract_description, user_id (FK))
- iv. task (task_id, promoter_id (FK), task_description, task_deadline, completion_status, user_id (FK))
- v. attendance (attendance_id, promoter_id (FK), clock_in_time, clock_out_time, attendance_date, status)
- vi. outlet (outlet_id, outlet_name, location)
- vii. sales_report (sales_id, promoter_id (FK), product_id (FK), sale_date, quantity_sold, total_amount, outlet_id (FK))
- viii. product (product_id, product_name, product_image, product_description, product_price, category, user_ID (FK))
- ix. inventory (inventory_id, product_id (FK), stock_quantity, inventory_level, outlet_id (FK))
- x. restock_inventory (restock_id, product_id (FK), user_id (FK), restock_date, quantity_added, SourceLocationInventory_id (FK), RestockInventory_id (FK))
- xi. performance (performance_id, promoter_id (FK), sales_report_summary, promoter_performance_notes, award_given, user_id (FK))

Dade Gifting

Login
Welcome to Promoter Information Management System

Username
Please enter your username

Password
Please enter your password

Access Level
Please select

Log in

Fig. 8 Login Page

Dade Gifting Home Registration Logout

Registration
Login Details

Username*

Password*

Confirm Password*

Access Level*

Register Date*

Register

Fig. 9 Registration Interface

Dade Gifting Home Logout

Promoter
Task
Reporting

Employment Contract Agreement

Fig. 10 Employment Documentation Interface

Dade Gifting Home Registration Logout

Promoter
Attendance and Task
Inventory
Sales report
Performance

Task Board

Attendance Board

Fig. 11 Task and Attendance Record Interface

Dade Gifting Home Registration Logout

Promoter
Attendance and Task
Inventory
Sales report
Performance

Inventory Search here Restock

Product Add New Product

Fig. 12 Inventory Interface

Dade Gifting Home Registration Logout

Promoter
Attendance and Task
Inventory
Sales report
Performance

Sales report

Fig. 13 Sales report interface

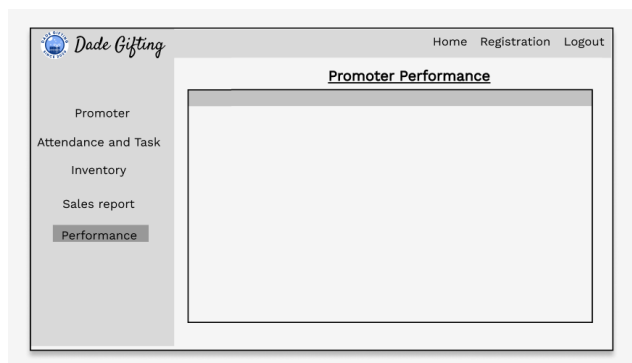


Fig. 14 Performance Interface

4. Result and Discussion

The development of this system used two software which are Visual Studio Code and XAMPP. Visual Studio Code is used to build and design the interface of the system using HTML, CSS, PHP, and JavaScript. While XAMPP is used to set up a server and to execute server-side coding. The system module includes login and registration, employment paperwork, inventory, task and attendance tracking, and sales and performance analysis.

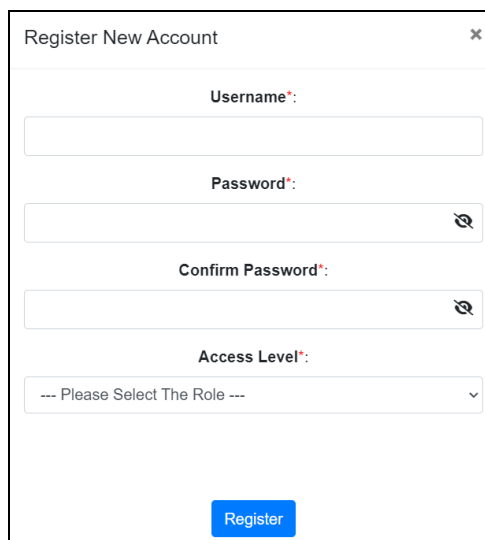


Fig. 15 Account Registration User Interface

Figure 15 shows the user interface of the account registration page. The user interface is designed to be simple and user-friendly. It consists of an input box that takes the username, password, and confirm password input, a dropdown menu to select user roles, and a register button. After filling out all the required fields, the administrator will click on the register button to submit the form.

Figure 16 shows the user interface of attendance tracking. On top of the interface, there is a digital clock displayed to show the exact time when users perform different actions. Below the clock, there are four buttons used to record different types of attendance actions, including check-in, break-in, break-out, and check-out. Lastly, At the bottom, the world map is used to display the user’s exact location every time the user performs the attendance actions. Therefore, promoters will click on the buttons to clock their attendance during work.

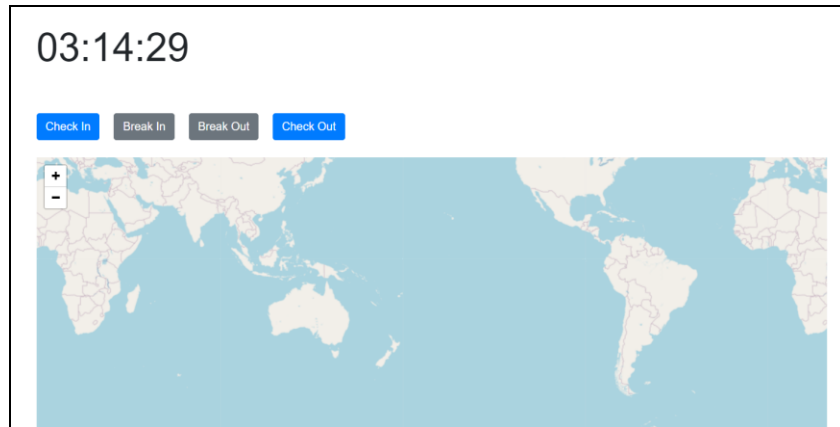


Fig. 16 Attendance Tracking User Interface

 The image shows a 'Add New Task' form. It includes the following fields:

- Task Name:** A text input field.
- Description:** A larger text area with a small icon in the bottom right corner.
- Due Date:** A date input field with the placeholder 'dd/mm/yyyy' and a calendar icon.
- Assignee:** A text input field.
- Recurring:** A dropdown menu currently set to 'None'.
- Submit:** A blue button at the bottom.

Fig. 17 Task Assignment User Interface

Figure 17 shows the user interface for adding new tasks. There is an input field for managers to enter the task name, description, due date, and assignee with a dropdown menu and a submit button. The dropdown menu is used to select whether the task is recurring or not. If the task is recurring, it specifies how frequently it is. Finally, once filling out all the required fields, managers will click on the submit button to submit the form.

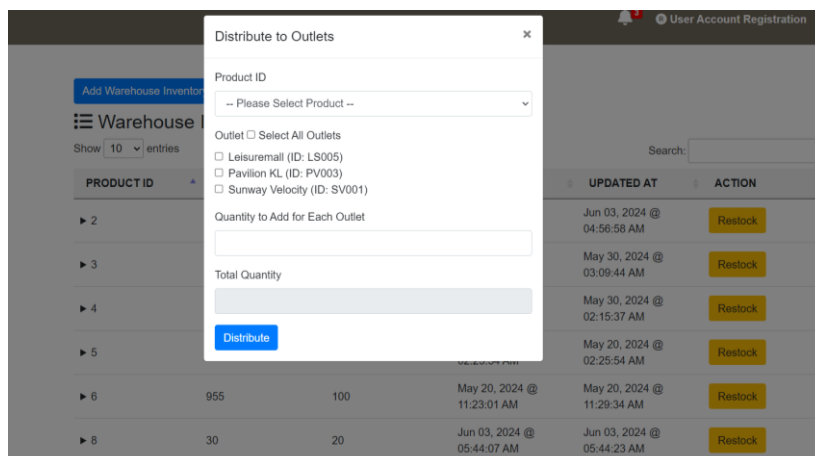


Fig. 18 Inventory Management User Interface

Figure 18 shows the user interface of the inventory management page. The form will appear when the administrator wants to add new inventory to the outlet. There are drop-down buttons for selected outlets and products and input fields for quantity and total quantity. The quantity is used to determine the number of units

of the product to be added to each outlet. After filling in all the required fields, the administrator will click on the distribute button to submit the form. On the other hand, behind the form, there is the main interface of the warehouse inventory interface which consists of a table to display the inventory information and a section to keep restock records.

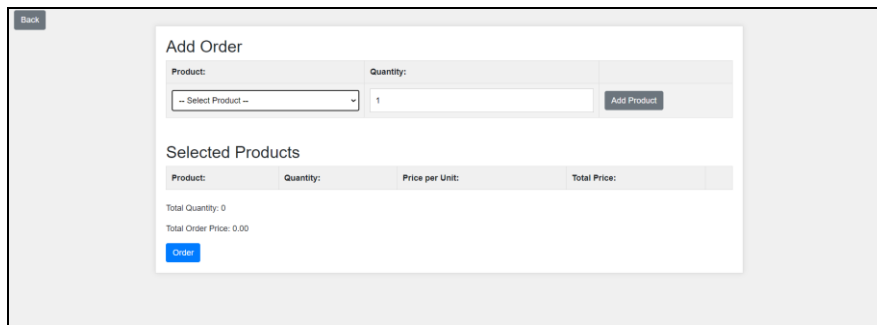


Fig. 19 Sales Order User Interface

Figure 19 shows the user interface of adding new order. There is a dropdown menu for promoters to select a product based on the outlet availability, an input field to enter the quantity of the selected product and an add product button to add the selected product and quantity to the order. The selected products table shows the product details that have been added to the order, including product, quantity, price per unit and total price. Below the table, the total quantity” and total order price display the total quantity of all products except for free gift in the order, and the total price of the order respectively. Finally, once filling out all the required fields, promoters will click on the order button to submit the order form. Once the order form is submitted, a new record will be added into the sales report table.

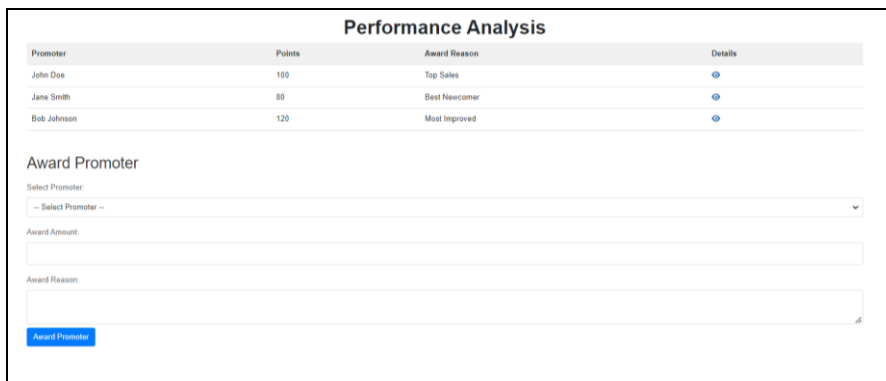


Fig. 20 Performance Analysis User Interface

Figure 20 shows the user interface of promoter analysis. There is a promoter performance table with different attributes such as Promoter, Points, Award Reason, and Details. The details icon will provide additional information about the promoter’s performance. Below the table, there is a form to award promoters, including a dropdown menu to choose a promoter, an input field to enter the amount of the award as a bonus to reward promoters, an input field to provide a reason or description for the award, and a button to submit the form. Once filling out all the required fields, the administrator will click on the button to submit the award form.

Figure 21 shows the user interface of the paper generation process. The table displays the list of promoters from the company with various details. While in the action column, there are icons for editing promoter details and deleting promoter information from the database. Furthermore, the agreement column is used to create promoter agreement documentation in PDF format. These buttons allow administrators to easily interact with the data.

USER ID	NAME	GENDER	OUTLET ID	MANAGER ID	DAILY SALARY	COMMISSION RATE	START DATE	END DATE	AGREEMENT	ACTION
P002	Lee Zhan Xiong	Female	SV001	M001	RM 150.00	2.00 %	April 02, 2024	May 30, 2024	<input checked="" type="checkbox"/>	✎ ✖
P003	Chiah Chi Kuan	Male	LS005	M002	RM 150.00	1.00 %	May 01, 2024	June 01, 2024	<input type="checkbox"/> Create	✎ ✖
P004	Lui Yi Wen	Female	BP006	M001	RM 150.00	1.00 %	May 13, 2024	May 31, 2024	<input type="checkbox"/> Create	✎ ✖

Fig. 21 Generate Employment Paperwork User Interface

In the testing phase, alpha testing and beta testing have been conducted. The alpha testing will determine that the system functions properly according to the expectations. Table 6 to Table 10 shows the test plans for the Promoter Information Management System.

Table 6 Test Case for User Login and Registration Module

Test Case ID	Description	Expected Result	Actual	Result
M1-1	To check whether the administrator can register for an account.	The administrator should be able to create an account.	The administrator has successfully created an account.	Pass
M1-2	To check whether a user can log into the system.	The user should be able to log into the system.	The user has successfully logged into the system.	Pass
M1-3	To check whether the system will restrict login whenever a wrong credential is entered.	The system should restrict login when incorrect credentials have been entered.	The system restricted the login when incorrect or no credentials had been entered.	Pass

Table 7 Test Case for Attendance and Task Tracking Module

Test Case ID	Description	Expected Result	Actual	Result
M2-1	To check whether the promoter can log their daily attendance.	The system should allow the promoter to log their daily attendance.	The promoter was able to log their daily attendance.	Pass
M2-2	To check whether the manager can assign tasks to promoters.	The system should allow the manager to assign tasks to promoters.	The manager was able to assign tasks to promoters.	Pass
M2-3	To check whether the manager can monitor task progress.	The system should allow the manager to monitor task progress.	The manager was able to monitor task progress.	Pass
M2-4	To check whether the system supports daily task assignments for promoters.	The system should support daily task assignments for promoters.	The system supported daily task assignments for promoters.	Pass
M2-5	To check whether the system ensures the tasks are completed on time.	The system should ensure the tasks are completed on time.	The system ensures the tasks are completed on time.	Pass

Table 8 Test Case for Inventory Management Module

Test Case ID	Description	Expected Result	Actual	Result
M3-1	To check whether the system allows administrators and managers to monitor inventory levels.	The system should allow administrators and managers to monitor inventory levels.	The system allowed administrators and managers to monitor inventory levels.	Pass
M3-2	To check whether the system sends notifications for restocking when inventory shortages occur.	The system should send notifications for restocking when inventory shortages occur.	The system sent notifications for restocking when inventory shortages occurred.	Pass
M3-3	To check whether the system includes Gift with Purchase (GWP) tracking in stock counting.	The system should include Gift with Purchase (GWP) tracking in stock counting.	The system included Gift with Purchase (GWP) tracking in stock counting.	Pass

Table 9 Test Case for Sales and Performance Analysis Module

Test Case ID	Description	Expected Result	Actual	Result
M4-1	To check whether the system can generate sales reports.	The system should be able to generate sales reports.	The system was able to generate sales reports.	Pass
M4-2	To check whether the system can monitor promoter performance.	The system should be able to monitor promoter performance.	The system was able to monitor promoter performance.	Pass
M4-3	To check whether the system can manage performance incentives.	The system should be able to manage performance incentives.	The system was able to manage performance incentives.	Pass
M4-4	To check whether the system can automatically calculate commissions based on predefined rates.	The system should be able to automatically calculate commissions based on predefined rates.	The system was able to automatically calculate commissions based on predefined rates.	Pass
M4-5	To check whether the system allows managers or administrator to award high-performing promoters.	The system should allow managers or administrator to award high-performing promoters.	The system allowed managers or administrator to award high-performing promoters.	Pass

Table 10 Test Case for Employment Paperwork Module

Test Case ID	Description	Expected Result	Actual	Result
M5-1	To check whether the system can produce employment documentation.	The system should be able to produce employment documentation.	The system was able to produce employment documentation.	Pass
M5-2	To check whether the system provides a feature to store employment documentation.	The system should provide a feature to store employment documentation.	The system provided a feature to store employment documentation.	Pass
M5-3	To check whether the system provides a feature to manage employment documentation.	The system should provide a feature to manage employment documentation.	The system provided a feature to manage employment documentation.	Pass

Beta testing will test the beta version of the Promoter Information Management System for Dade Gifting Sdn Bhd. 15 users have been chosen to take part in the test to gather their feedback. 3 of the representatives from Dade Gifting Sdn Bhd would manage administrator and manager testing, while 12 random users from the public would be tested as promoters. **Figure 24** shows the result for the evaluation of system features while **Figure 25** shows the results for the evaluation of the interface.

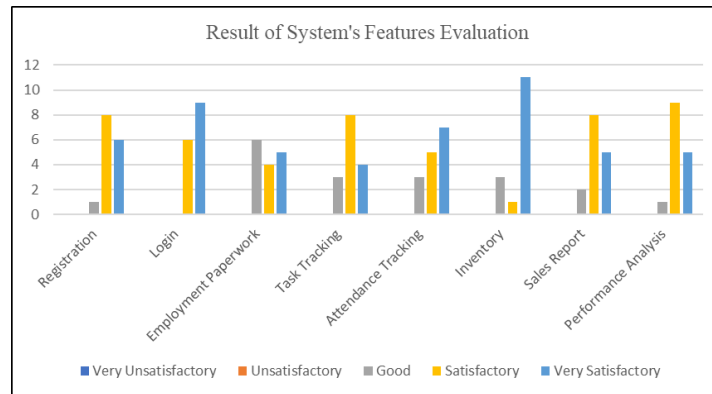


Fig. 24 Result for Evaluation of System Features

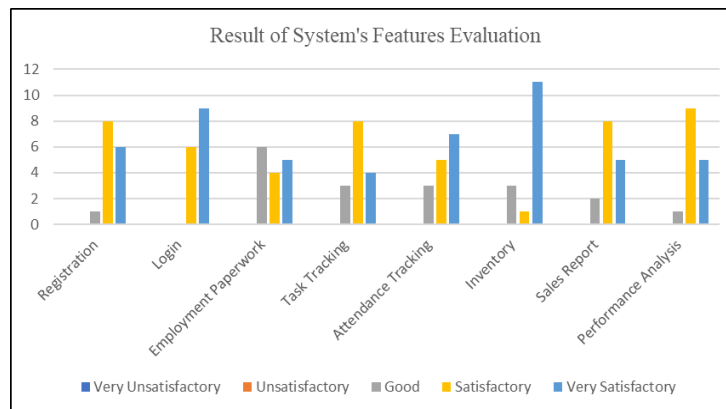


Fig. 25 Result for Evaluation of System Interface

5. Conclusion

In conclusion, Dade Gifting Sdn, Bhd needs to transform its current manual approach to data management to the proposed Promoter Information Management System (PIMS) which can overcome its barriers. Issues found such as miscommunication and time-consuming tracking process can be overcome just by using PIMS which can make things smoother and more efficient. Thus, this system is significant to ensure the company has a better data management solution to enhance operational efficiency, maintain data integrity, and improve overall decision-making to expand its business growth. It not only fixes the current problems faced by the company but also makes decisions in a better way based on data and helps the retail sector grow consistently.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of the paper.

Author Contribution

The author confirms sole responsibility for the following: **study conception and design:** Lim Kar Nee, Nureize Arbaiy; **data collection:** Lim Kar Nee, Nureize Arbaiy; **analysis and interpretation of results:** Lim Kar Nee, Nureize Arbaiy; **draft manuscript preparation:** Lim Kar Nee, Nureize Arbaiy. All authors reviewed the results and approved the final version of the manuscript.

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