

OMIK HOLDINGS (Pvt) Ltd

Management System

Diploma in Software Engineering

Final Project Documentation

2023.3F



**School of Computing and Engineering
National Institute of Business Management
Colombo 07**

Title of the Project: Data Management System For “OMIK HOLDINGS”

Authors:

CODSE233F-004 – KALMITHA S V V

CODSE233F-067 – MADUSANKA H A I

CODSE233F-141 – PERERA V P K M

CODSE233F-142 – RASHMIKA M K

Name of the Program: Diploma in Software Engineering 23.3

Supervisor: Dr. Thisara Weerasinghe

Name of the Institution: Data Management System

National Institute of Business Management

Date:/...../2024

“The project is submitted in partial fulfilment of the requirement of the Diploma of Software Engineering of National Institute of Business Management.”

Declaration

“I certify that this project does not incorporate without acknowledgment, any material previously submitted for a Diploma in any institution and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my project report, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations.”

Index No	Name	Signature	Date
CODSE233F-004	KALMITHA S V V		
CODSE233F-067	MADUSANKA H A I		
CODSE233F-141	PERERA V P K M		
CODSE233F-142	RASHMIKA M K		

Preamble

Abstract

The project of developing a Data Management System for OMIK Distribution primarily focuses on transforming the company's current manual system into an automated, efficient software application. The goal of this system is to provide a user-friendly platform that simplifies the management, tracking, and coordination of various business activities within the distribution network. This system will enable more effective time management, streamline workflows, and ensure accessibility from anywhere at any time through internet connectivity.

OMIK Distribution's current file-based data processing system is becoming increasingly difficult to manage due to the growing volume of information. Challenges like data redundancy, inconsistency, data isolation, and difficulties in data retrieval are prevalent, making daily operations cumbersome. The new system seeks to address these challenges, offering a modern solution to eliminate time-consuming manual processes, reduce fragmentation in data storage, and improve overall accessibility to essential data and resources.

This data management system will streamline key functions such as inventory management, order processing, and supplier coordination, while improving workflow efficiency and reducing human error. By automating various tasks, the system will allow for smoother coordination between staff, suppliers, and customers. Additionally, the system will provide insightful analytics to support decision-making processes regarding inventory levels, order fulfilment, and overall business performance.

Moreover, the system will benefit the company's administration by streamlining workflows, reducing data redundancy, and enhancing data security. The system will also allow for easy scalability as OMIK Distribution continues to grow. Throughout the project, the insights and feedback of stakeholders will be incorporated to ensure the software is tailored to the unique needs of the company, ultimately addressing the current challenges faced by the management and staff.

In conclusion, this project aspires to create a robust and dynamic Data Management System for OMIK Distribution, enriching the company's operational capabilities and strengthening its overall business ecosystem. In conclusion, this project aspires to create a robust and dynamic "Data Management System for OMIK Distribution", enriching the company's operational capabilities and strengthening its overall business ecosystem.

List of Keyboards

- Owner
- Staff Manager
- Sales Manager
- Finance Manager
- Accountant
- Salesperson
- Stock Keeper
- Transporter
- Supplier
- Customer

List of Figures

- Figure 1: Waterfall Model
- Figure 2: Visual Studio Code
- Figure 3: XAMPP Server
- Figure 4: MySQL
- Figure 5: PHP
- Figure 6: HTML5
- Figure 7: CSS 3
- Figure 8: JavaScript
- Figure 9: Bootstrap
- Figure 10: Home Page
- Figure 11: Staff Dashboard
- Figure 12: External Users Dashboard
- Figure 13: Login Page
- Figure 14: View Finance
- Figure 15: View Staff Report
- Figure 16: View Status
- Figure 17: View Revenue
- Figure 18: View Expense Report
- Figure 19: Add New Staff
- Figure 20: Generate Employee Schedules
- Figure 21: View Request Leave
- Figure 22: Approve Request Leave
- Figure 23: Generate Staff Report
- Figure 24: Place Supplier Orders
- Figure 25: View Customer Feedback
- Figure 26: View Employee Schedule
- Figure 27: Generate Sales Reports
- Figure 28: View Product Certification
- Figure 29: Assign Task
- Figure 30: View Customer Order History
- Figure 31: View Discount Request

Figure 32: View Supplier Order Status
Figure 33: View Customer Order
Figure 34: Approve Customer Order
Figure 35: View Market Analysis Report
Figure 36: View Stock Status
Figure 37: View Stock Report
Figure 38: View Delivery Status
Figure 39: Add Product
Figure 40: Update Product
Figure 41: Generate Financial Report
Figure 42: Generate Payroll
Figure 43: View Expense Report
Figure 44: View Expired Products
Figure 45: View Customer Payment
Figure 46: View Customer Order
Figure 47: View Supplier Order
Figure 48: View Payment for Expired
Figure 49: View Delivery Cost Report
Figure 50: View Employee Schedule
Figure 51: View Attendance
Figure 52: View Payrolls
Figure 53: View Invoice
Figure 54: View Revenue
Figure 55: View Sale Invoice
Figure 56: View Delivery Cost Report
Figure 57: View Payment
Figure 58: Generate Expense Report
Figure 59: View Employee Schedule
Figure 60: Take Customer Orders
Figure 61: Take Customer Payments
Figure 62: View Feedback
Figure 63: Generate Sale Invoices

Figure 64: View Product
Figure 65: Generate Market Analysis Report
Figure 66: Discount Request
Figure 67: View Delivery Status
Figure 68: View Expired Products
Figure 69: View Stock Status
Figure 70: View Task
Figure 71: View Customer Orders
Figure 72: Generate Stock Report
Figure 73: Add Stock Status
Figure 74: View Employee Schedule
Figure 75: Generate Delivery Cost Report
Figure 76: Add Delivery Status
Figure 77: Take Expired Products
Figure 78: Delivery Update Status
Figure 79: View Orders
Figure 80: Update Order Status
Figure 81: Upload Product Certification
Figure 82: View Payment Status
Figure 83: View Confirm Order
Figure 84: View Order
Figure 85: View Delivery Status
Figure 86: View Order History
Figure 87: Give Feedback

List of Tables

Table 1: accountant

Table 2: attendence

Table 3: cusorder

Table 4: customer

Table 5: deliveryreport

Table 6: discounts

Table 7: employeeschedule

Table 8: expensereport

Table 9: expireproducts

Table 10: feedback

Table 11: finance_manager

Table 12: financialreports

Table 13: invoice

Table 14: leavereq

Table 15: marketanalys

Table 16: owner

Table 17: payment

Table 18: payroll

Table 19: productcertification

Table 20: products

Table 21: revenue

Table 22: saleinvoice

Table 23: salereport

Table 24: sales_manager

Table 25: sales_person

Table 26: staff

Table 27: staff_manager

Table 28: staff_report

Table 29: stock

Table 30: stock_keeper

Table 31: suporder

Table 32: supplier

Table 33: tasks

Table 34: transporter

List of Acronyms and Abbreviations

- UML – Unified Modified Language
- UI – User Interfaces

Acknowledgement

We would like to express our deep gratitude to our project supervisor Dr. Thisara Weerasinghe for his patient guidance, enthusiastic encouragement, and helpful criticisms of this project.

Also, we would like to express our sincere thanks to our university, the National Institute of Business Management, who gave us the physical and mental strength to carry out this project successfully.

As well as that, we would like to express our thanks to the friends of our batch, parents, and the members of the relevant institutions who provided information for the project.

Thank You!

Table Of Contents

Chapter 01 : Introduction	14
1.1 Introduction of the organization	14
1.2 Organization Structure	15
1.3 Current Operation In Organization	16
1.4 Users And Responsibilities Organization	17
1.5 Problem Definition	20
1.6 Problem Objectives	21
1.7 Proposed Solution	22
1.8 Chapter Summary	23
Chapter 02: Methodology	24
2.1 Introduction	24
2.2 Data Collection Method(s)	24
2.3 Software Process Model	25
2.4 Software Development Tools.....	26
2.5 Testing Strategies	30
2.6 Implementation Plan	32
2.7 Chapter Summary	32
Chapter 03: Analysis	33
3.1 Introduction	33
3.2 UML Diagram	34
3.3 ER Diagram of the Proposed System	37
3.4 Chapter Summary	38
Chapter 04: Solution Design	39
4.1 Introduction	39
4.2 Interface Design	40
4.3 Database Design	77
4.4 Report Layouts	85
Chapter 05: Conclusion	88

Chapter 01: Introduction

1.1 Introduction of the organization

The organization *OMIK Distribution* serves the needs of its clients and partners by providing effective distribution services. Established in 2014, the company has steadily grown and now manages the distribution of various products to around 250 clients across different regions.

OMIK Distribution's primary objective is to ensure smooth and timely product delivery while addressing challenges such as inventory shortages, delayed shipments, and customer service issues. The company regularly evaluates its processes to enhance service quality and improve operational efficiency. Regular performance reviews are conducted to assess the effectiveness of the supply chain and to track the development of customer satisfaction and order fulfillment rates.

In addition to regular product distribution, OMIK Distribution also manages specialized services, including bulk order handling and urgent deliveries. The company prides itself on having experienced and dedicated staff who are well-versed in logistics and distribution management. They employ systematic approaches, including automated inventory tracking, delivery optimization, and supplier coordination, to improve efficiency and accuracy. The company also offers personalized attention to key clients, allowing them to identify specific needs and adjust distribution strategies accordingly. Furthermore, OMIK Distribution conducts regular meetings with clients and suppliers to review performance, address any concerns, and strengthen partnerships. To ensure seamless operations, OMIK Distribution uses a wide range of distribution resources, along with access to online logistics platforms.

Overall, OMIK Distribution is committed to delivering high-quality distribution services. By offering comprehensive solutions and fostering strong relationships with clients and suppliers, the company aims to position itself as a leader in the distribution industry, while continuously improving its operational performance and expanding its service offerings.

1.2 Organization Structure

The staff at OMIK Distribution are responsible for the day-to-day operations of the company. This includes managing the distribution of products to clients, tracking inventory, and overseeing logistics. The workforce consists of both operational staff, such as distribution coordinators and drivers, as well as non-operational personnel like administrative assistants and maintenance workers, who ensure the company runs smoothly.

OMIK Distribution's primary focus, clients, are the businesses and individuals who rely on the company for efficient delivery of products. The company's service offerings include various distribution processes, inventory management, order fulfilment, and logistics coordination, all aimed at meeting client needs.

The resources and equipment necessary to support the company's distribution mission include inventory management systems, vehicles for transportation, tracking tools, and other logistical resources. Overall, the structure of OMIK Distribution is designed to streamline the distribution process, provide reliable services to clients, and maintain efficient operations to support the company's growth and success.

1.3 Current Operation in Organization

The current system used at OMIK Distribution is largely manual, involving printed documentation and manual processes. The staff rely on a paper-based system for tracking inventory, processing orders, and recording client transactions. Administrative tasks, such as payment records and order fulfilment details, are managed manually by the administrative staff.

Client registration, order placements, and product deliveries are also handled manually. Any updates on order schedules or delivery dates are communicated either over the phone or through printed notices. So far, order confirmations and delivery receipts are distributed physically by the delivery staff during interactions with the clients.

This manual approach, while functional, presents challenges in terms of efficiency, accuracy, and scalability as the company continues to grow.

1.4 User and Responsibilities Organization

In the distribution company “OMIK Distribution,” there are several key users, each with their own distinct roles and responsibilities. The main users of the OMIK Distributor Data Management System and their general responsibilities are outlined below:

1. Owner

- View Finance Report
- View Staff Reports
- View Sales
- View Revenue
- View Expense report

2. Staff Manager

- Add New Staff
- Generate Employee Schedules
- View Request Leave
- Generate Staff Report
- Approve Request Leave

3. Finance Manager

- View Expense Report
- Generate Payrolls
- View Invoice
- Approve Payments
- View Revenue
- Confirm Revenue
- View Delivery Cost Report
- Generate Financial Report
- Generate Payroll
- View Customer Payment
- Make Supplier Payment
- View Expired Products Payment
- Generate Revenue Report
- Track Outstanding Balances
- View Supplier Order
- View Customer Payments

4. Sales Manager

- Place Supplier Order
- View Customer Feedback
- View Employee Schedule
- Generate Sales Reports
- View Product Certification
- Assign Task
- View Customer Order History
- View Discount Request
- View supplier Order Status
- View Customer Order
- Approve Customer Order
- View market analysis report
- View Stock Status
- View Stock Report
- View Delivery Status
- Add and Update Product

5. Sales Person

- Take Customer Orders
- View Feedback
- View Products
- View Delivery Status
- Generate Sale Invoice
- Take Customer Payments
- Generate Market Analysis Report
- Discount Request
- View Expired Product
- View Stock Status
- View Task

6. Accountant

- View & Approve Revenue
- View Delivery Cost Report
- Generate Expense Report
- View Employee Schedule
- View payrolls
- View & Approve Invoice
- View Sale Invoice
- View payment

7. Stock Keeper

- View & Load status of Customer orders
- Generate Stock Report
- Add stock status
- View Employee Schedule

8. Transporter

- View Delivery Status
- View Employee Schedule
- Add Delivery Status
- Generate Delivery Cost Report
- Take Expired Products
- Update Delivery Status
- View Delivery Orders

9. Customer

- Login
- View Orders
- View Delivery Status
- Give Feedback
- View Order History
- View Confirm Orders

10. Supplier

- View Orders
- Upload Product Certification
- View Expired Products
- View Delivery Status
- View & accept Payments Status

1.5 Problem Definition

The current management system of OMIK Distribution is based on a manual, paper-based approach. However, this method presents significant challenges and inefficiencies for the company. Relying on such an outdated system has numerous disadvantages for OMIK Distribution, impacting both day-to-day operations and long-term performance.

In OMIK Distribution, all management processes—from inventory tracking to supplier coordination and order processing—are conducted manually through paper records. This leads to several vulnerabilities and inefficiencies in handling data.

Firstly, it is difficult to provide adequate protection for paper documents where critical business information is stored. These documents are at risk of being destroyed by environmental factors such as natural disasters or being damaged by pests. Additionally, sensitive information is susceptible to theft or unauthorized access. There is also a high likelihood of documents being misplaced or lost, leading to significant disruptions in business operations.

Similarly, retrieving information for decision-making or audits becomes a tedious process, as staff must search through numerous files and logs to find specific data. If any new data needs to be recorded, it must be manually entered into multiple logs, which not only consumes time but also increases the likelihood of errors.

Managing operations in such a paper-based system is time-consuming and prone to human error. Therefore, we are introducing a modern, technology-driven solution. The new *Data Management System* for OMIK Distribution will automate and streamline key processes, eliminating the inefficiencies of the current system. This system will enhance data security, improve workflow efficiency, and ensure easy access to critical business information, ultimately transforming the way OMIK Distribution operates.

1.6 Problem Objectives

The primary objective of this project is to provide a solution to the current paper-based management system used by OMIK Distribution. We propose developing a comprehensive Data Management System as a solution to streamline and automate the company's operations.

This Data Management System will enable all users—whether they are staff, managers, or suppliers—to perform their tasks more efficiently. By utilizing a modern web-based application, the system will enhance time management, reduce human error, and eliminate the tedious processes associated with paper-based documentation.

Another critical goal is to improve data security and confidentiality. Maintaining a paper-based system makes it difficult to protect sensitive information, leaving it vulnerable to loss, theft, or damage. The new system will ensure that all data is securely stored and easily accessible, preventing issues like misplacement or unauthorized access.

Additionally, this system will introduce advanced technology into OMIK Distribution's workflow, helping employees become familiar with modern tools and systems. By implementing this solution, the company will not only improve its operations but also empower its workforce to adopt new technologies, enhancing overall productivity and efficiency.

These are the key objectives that we have focused on for the development of the OMIK Distributor Data Management System.

1.7 Proposed Solution

The current management system at OMIK Distribution relies on a paper-based process, which is inefficient and prone to errors.

As a solution, we propose the development of a modern web-based Data Management System for OMIK Distribution. This system will leverage the latest technology to automate and streamline all the company's key operations.

With this web application, all manual tasks can be digitized. The system will allow users to add new data, view important information, delete unnecessary records, and update existing data with ease. Key aspects of the business, such as inventory management, supplier coordination, order processing, and financial reporting, will be managed efficiently through the platform.

Additionally, users will have access to critical reports and analytics, such as sales summaries, inventory levels, customer order history, supplier details, and financial summaries, all from one centralized location. This will enhance decision-making and ensure real-time access to vital business information.

By implementing this Data Management System, OMIK Distribution will eliminate the inefficiencies of the current paper-based system and move towards a more streamlined, secure, and efficient way of managing its operations.

1.8 Chapter Summary

This chapter provides an overview of OMIK Distribution, highlighting the challenges faced with its current paper-based management system and the inefficiencies it brings to daily operations. It details the shortcomings of the existing system, including data security issues, difficulties in managing inventory, orders, and supplier coordination.

The chapter also outlines the proposed solution: a modern Data Management System designed to address these issues. This system aims to streamline operations, improve data security, and enhance overall efficiency by automating key processes.

In addition to discussing the solution, the chapter explains the roles and responsibilities of various users within the organization, ensuring that each stakeholder's tasks are clearly defined within the new system.

Chapter 02: Methodology

2.1 Introduction

This chapter outlines how the necessary information for implementing the OMIK Distributor Data Management System was gathered. It also explains how the project plan was developed. Additionally, this chapter presents the software process model, and the development tools used to create this web application. Furthermore, it provides an overview of the testing strategies employed to evaluate the web application, along with the implementation plan for the system.

2.2 Data Collection Method(s)

The data required to develop the OMIK Distributor Data Management System was collected using the following methods:

Documents / Records

One of the primary methods of data collection involved analysing the existing documents and reports of OMIK Distribution. This analysis provided a comprehensive understanding of the organization's current processes and helped identify the key areas for improvement.

Questionnaires and Surveys

The questionnaire method was employed to gather information that was not available through existing reports. This approach helped in obtaining specific insights and data from relevant stakeholders, ensuring a more complete understanding of the system requirements.

Personal Interviews

Based on our experience, personal interviews proved to be the most effective method for collecting detailed information about the organization. Interviews allowed for open-ended discussions and provided deeper insights into the processes within OMIK Distribution. This method also facilitated the development of a clear plan for the new system, helping us identify essential features and improvements needed for the OMIK Distributor Data Management System.

2.3 Software Process Model

For the design process of the OMIK Distributor Data Management System, we adopted the Agile Methodology.

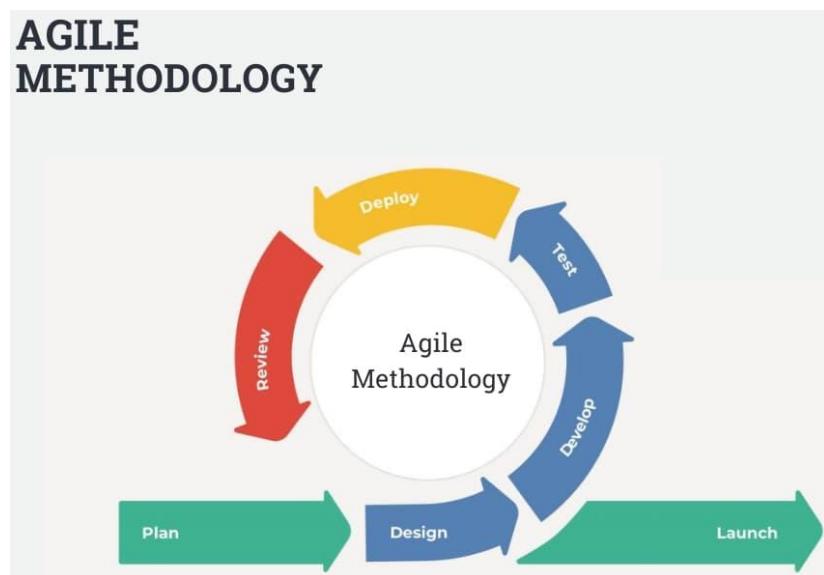
Agile methodology is an iterative approach to software development that breaks the project into smaller, manageable units called iterations or sprints. Each sprint focuses on delivering a functional piece of the system, allowing for flexibility and continuous improvement throughout the development process.

Unlike the traditional Waterfall model, where each phase is linear and dependent on previous phases, Agile encourages frequent collaboration, adaptability, and the delivery of working software at the end of each sprint. This approach allows for better alignment with user feedback and the changing needs of the business.

In the context of the OMIK Distributor Data Management System, the Agile methodology enabled us to:

1. Continuously refine the system based on stakeholder input.
2. Ensure rapid delivery of functional modules for early testing and feedback.
3. Adjust development priorities and features as new insights emerged.

By using Agile, we could remain flexible and responsive to the evolving needs of OMIK Distribution, ensuring that the final system meets both current and future requirements effectively.



2.4 Software Development Tools

- **Visual Studio Code**



Visual Studio Code (often abbreviated as VS Code) is a free and open-source code editor developed by Microsoft for Windows, Linux, and macOS. It includes support for debugging, source control, and integrated terminal, as well as support for a variety of programming languages and development environments, and includes built-in Git support. It is also highly extensible, allowing users to install extensions to add additional functionality, such as support for additional languages, themes, and debugging tools. Visual Studio Code is commonly used for web development, data science, and other types of software development.

- **XAMPP**



XAMPP is a cross-platform web development environment that enables users to create and test web applications locally. It stands for *"Cross-Platform, Apache, MySQL, PHP, and Perl"*, providing all the necessary tools to develop and test websites on your own computer before deploying them to a live server.

XAMPP includes the Apache web server, the MySQL database management system, the PHP programming language, and Perl, allowing developers to build dynamic websites and applications. After installation, XAMPP creates a local server environment that mimics a production server, enabling developers to test their code and applications in a secure, offline environment.

The user-friendly interface simplifies server management, making it easy to configure, start, and stop services such as Apache and MySQL. XAMPP is a great choice for developers looking for a free, easy-to-install solution for web development on Windows, Linux, and macOS.

- **MYSQL**



MySQL is a widely-used open-source relational database management system (RDBMS). It is based on the Structured Query Language (SQL) and is often used in combination with PHP to create dynamic websites and web applications.

MySQL is known for its reliability, stability, and ease of use. It can handle large amounts of data and can be used on a variety of platforms, including Windows, macOS, and Linux. It supports a wide range of storage engines, including the default MariaDB as well as memory storage engines and transactional storage engines.

MySQL is also highly configurable, allowing users to adjust settings to optimize performance for specific workloads. It also provides a range of security features, such as user account management and secure connections, to help protect data and prevent unauthorized access.

It's not the only RDBMS, there are several others like PostgreSQL, Oracle, MS SQL Server, and SQLite. However, MySQL is considered as the most popular and widely used among them.

- **PHP**



PHP (Hypertext Preprocessor) is a widely used, open-source server-side programming language for creating dynamic websites and web applications. It is executed on the server, with results returned to the user's browser as HTML, CSS, and JavaScript, ensuring the code is not visible or editable by the user. PHP is often combined with technologies like MySQL to build dynamic content management systems, e-commerce platforms, and forums. Its simple syntax makes it beginner-friendly, and it integrates seamlessly with HTML. PHP is supported by most web servers and operating systems, making it a popular choice in web development.

- **HTML**



HTML5 is the latest version of the standard markup language used to create web pages, released in 2014. It introduces new elements like `<header>`, `<nav>`, `<article>`, `<section>`, `<aside>`, and `<footer>`, which help structure web content and create more accessible and consistent layouts. HTML5 also includes new form controls (e.g., `<date>`, `<search>`) and multimedia elements (e.g., `<audio>`, `<video>`) that eliminate the need for third-party plugins. It supports offline web applications, improved semantic support for better indexing by search engines, and is backward-compatible with previous HTML versions, making it easy to update existing web pages.

- **.CSS**



CSS3 is the latest version of Cascading Style Sheets (CSS), a language used to define the presentation of web pages. It introduces new features like advanced selectors, pseudo-classes, and units of measurement (e.g., rem, vh/vw) for more responsive designs. CSS3 also includes layout models like flexbox and grid, enabling complex and flexible grid-based layouts that adjust to different screen sizes and orientations. New visual features such as multiple backgrounds, text effects, gradients, box shadows, and border-radius help create more polished designs. Additionally, media queries allow developers to apply different styles based on device characteristics, improving responsiveness across devices.

- **JAVASCRIPT**



JavaScript is a client-side programming language used to create interactive and dynamic web pages. It enables features like image sliders, form validation, and interactive maps, and is commonly used for web applications such as single-page apps and browser-based games. JavaScript code is written in plain text and can be integrated with HTML and CSS to build complex web pages. As an object-oriented and event-driven language, it offers flexibility and responsiveness to user actions like clicks and key presses. JavaScript has a large developer community and various frameworks (e.g., jQuery, React), making it easy to add advanced functionality to web projects.

- **BOOTSTRAP**



Bootstrap

Bootstrap is a free, open-source front-end framework used to create responsive, mobile-first websites and web applications. It consists of CSS and JavaScript components, such as forms, buttons, and navigation, that are easily customizable and reusable. Developed by Twitter, it works seamlessly with HTML, CSS, and JavaScript, and integrates well with popular development tools. Bootstrap's responsive grid system allows layouts to adapt to different screen sizes, and its pre-designed components are optimized for touch and gestures. It also includes a variety of built-in CSS classes and JavaScript plugins, making web development faster and more efficient with consistent design and easy customization.

2.5 Testing Strategies

What is a Test Strategy?

A Test Strategy outlines the approach and methods that will be used to test an application. It defines the exact process and strategy for testing, helping to ensure that all objectives are met from a quality assurance perspective. The goal of the test strategy is to provide a rational framework that guides testing activities, aligning them with organizational objectives.

For the OMIK Distributor Data Management System, the best testing strategy will combine both manual and automated testing methods, focusing on both functional and non-functional testing to ensure a high-quality system.

Here are the steps we will follow to test the *OMIK Distributor Data Management System*:

1. **Requirements Analysis:** Identify and review the functional and non-functional requirements of the OMIK Distributor Data Management System, such as inventory management, order processing, supplier coordination, and user authentication.
2. **Test Planning:** Define the scope of testing, including what will be tested (e.g., inventory updates, order management, user access), when testing will occur (e.g., after each sprint or milestone), and what resources (e.g., testing tools, personnel) will be required.
3. **Test Design:** Develop test cases, scripts, and scenarios based on the system's requirements. This will include functional testing (e.g., checking the correct processing of orders) and non-functional testing (e.g., ensuring security, performance, compatibility, and integration across different components).
4. **Test Automation:** Automate functional tests, where applicable, to improve efficiency and accuracy. For example, automated tests can validate order processing, report generation, and supplier management functions.
5. **Test Execution:** Conduct both manual and automated tests, recording results including any failures or errors. This phase ensures that the system meets the expected requirements in different scenarios.

6. **Test Evaluation:** Analyse the testing results to identify any areas for improvement in the OMIK Distributor Data Management System and determine whether the system meets the defined quality standards.
7. **User Acceptance Testing (UAT):** Involve actual users of the system, such as staff, sales representatives, and managers, to test the system's usability and functionality in real-world scenarios. Their feedback will be valuable in assessing the overall user experience.
8. **Test Closure:** Document the test results, highlighting any issues encountered and the resolution process. Once testing is completed, close out the testing phase and ensure that the system is ready for deployment.
9. **Test Maintenance:** As the OMIK Distributor Data Management System evolves, maintain and update the testing process. This includes revising test cases and scripts to reflect new features or modifications to the system.

By following this strategy, we ensure the OMIK Distributor Data Management System is thoroughly tested, meeting both user and organizational requirements, and providing a reliable solution for managing inventory, orders, and supplier relations.

2.6 Implementation Plan

An implementation plan is a project management tool that helps facilitate the execution of a strategic plan by breaking the process into smaller, manageable steps. It defines the timeline, teams, and resources required to successfully execute the project.

Parallel Implementation

For the OMIK Distributor Data Management System, we will adopt a parallel implementation strategy. This approach involves running both the legacy system (current manual processes) and the new system simultaneously. The goal is to monitor how well the new system integrates with existing workflows and to compare its benefits against the old system.

Developing and implementing a web application like the OMIK Distributor Data Management System takes time. By using the parallel implementation strategy, we aim to introduce the new system gradually while still maintaining the current processes. This will allow staff members to familiarize themselves with the new system without disrupting daily operations. Additionally, the parallel approach helps identify any potential issues early on, providing an opportunity to refine the system before full deployment.

This method ensures a smooth transition from the legacy system to the new OMIK Distributor Data Management System, minimizing the risks associated with immediate full-scale implementation.

2.7 Chapter Summary

In this chapter, we outlined the data collection methods used for the OMIK Distributor Data Management System. We explained how data was gathered; the methods employed and provided a detailed description of each method. Following this, we discussed the software process model, highlighting the approach we followed to design the system for this project. We then covered the software development tools used to create the OMIK Distributor Data Management System. Finally, we presented the implementation plan, detailing how the project was built step by step, ensuring a smooth transition from the legacy system to the new data management system.

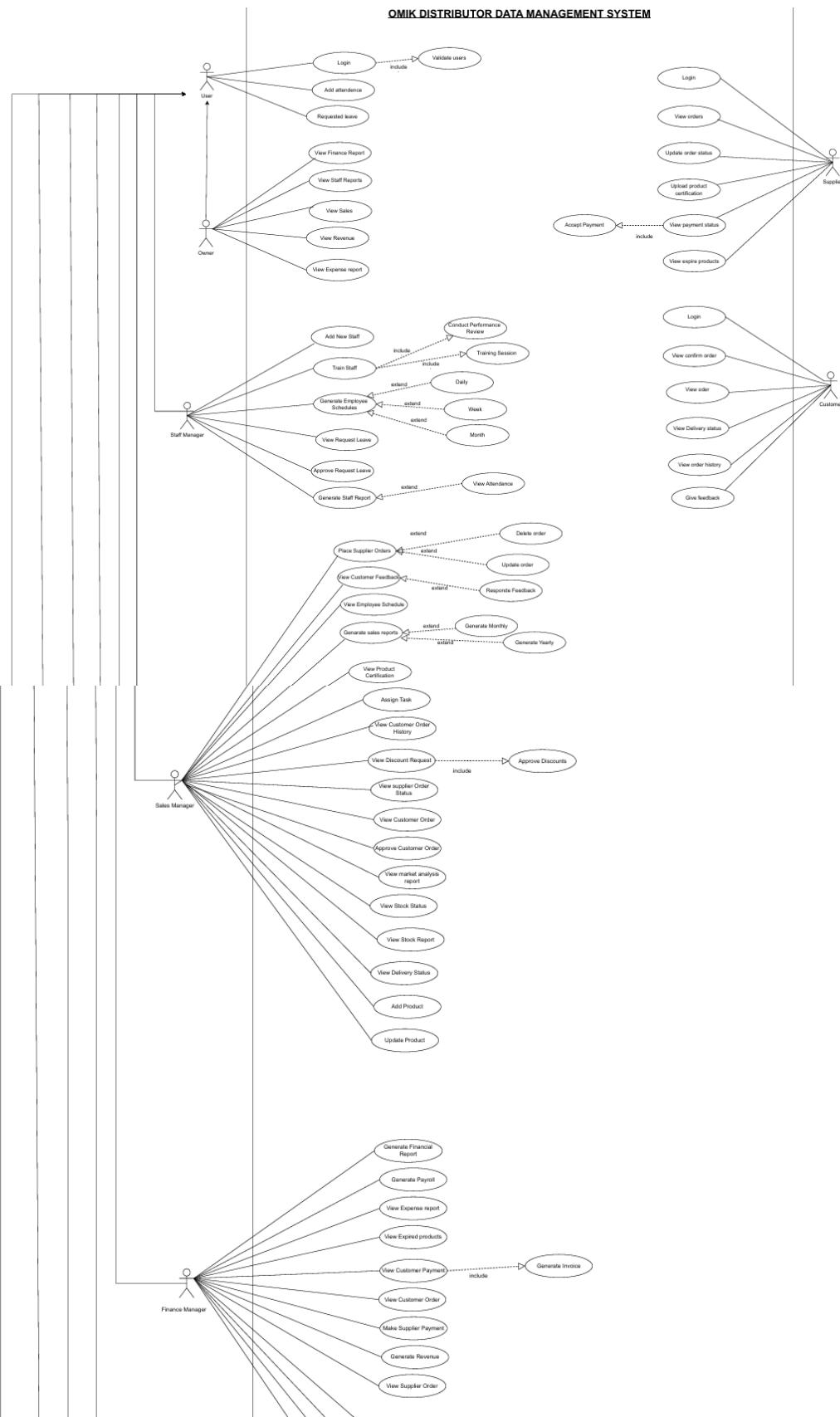
Chapter 03: Analysis

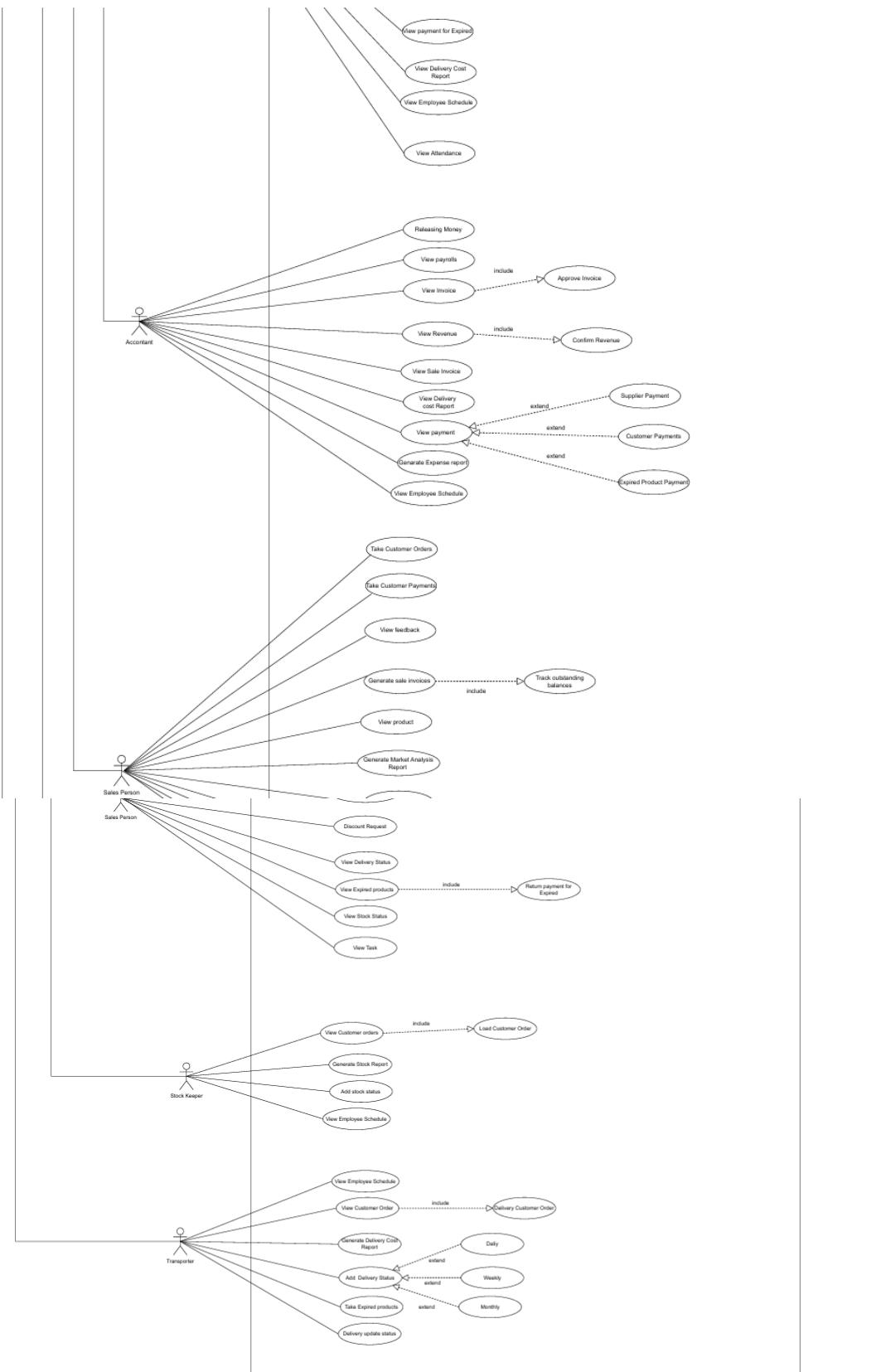
3.1 Introduction

The system analysis process is iterative and may require revisiting previous steps to adjust and refinements based on new information or changes in requirements. For the OMIK Distributor Data Management System, this process involves a comprehensive examination of the system's requirements, limitations, and potential solutions, as well as an evaluation of the system's potential benefits and costs. Various methods are used in the analysis, including interviews, surveys, observations, and the review of existing documents and data from OMIK Distribution. This analysis ensures that the final system meets the needs of the organization, improves efficiency, and addresses current challenges in inventory management, order processing, and supplier coordination.

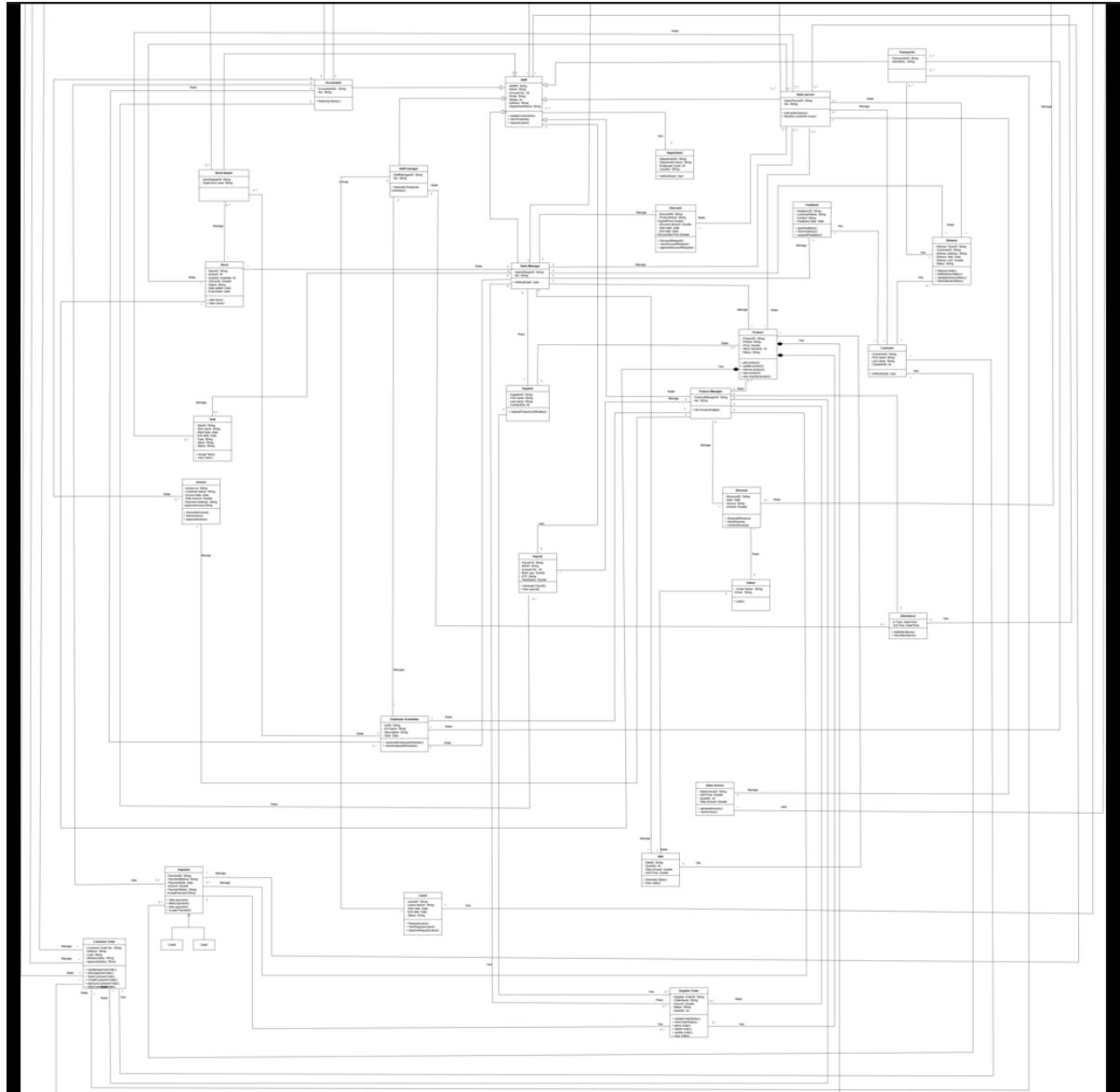
3.2 UML Diagram

Use Case Diagram of Proposed System

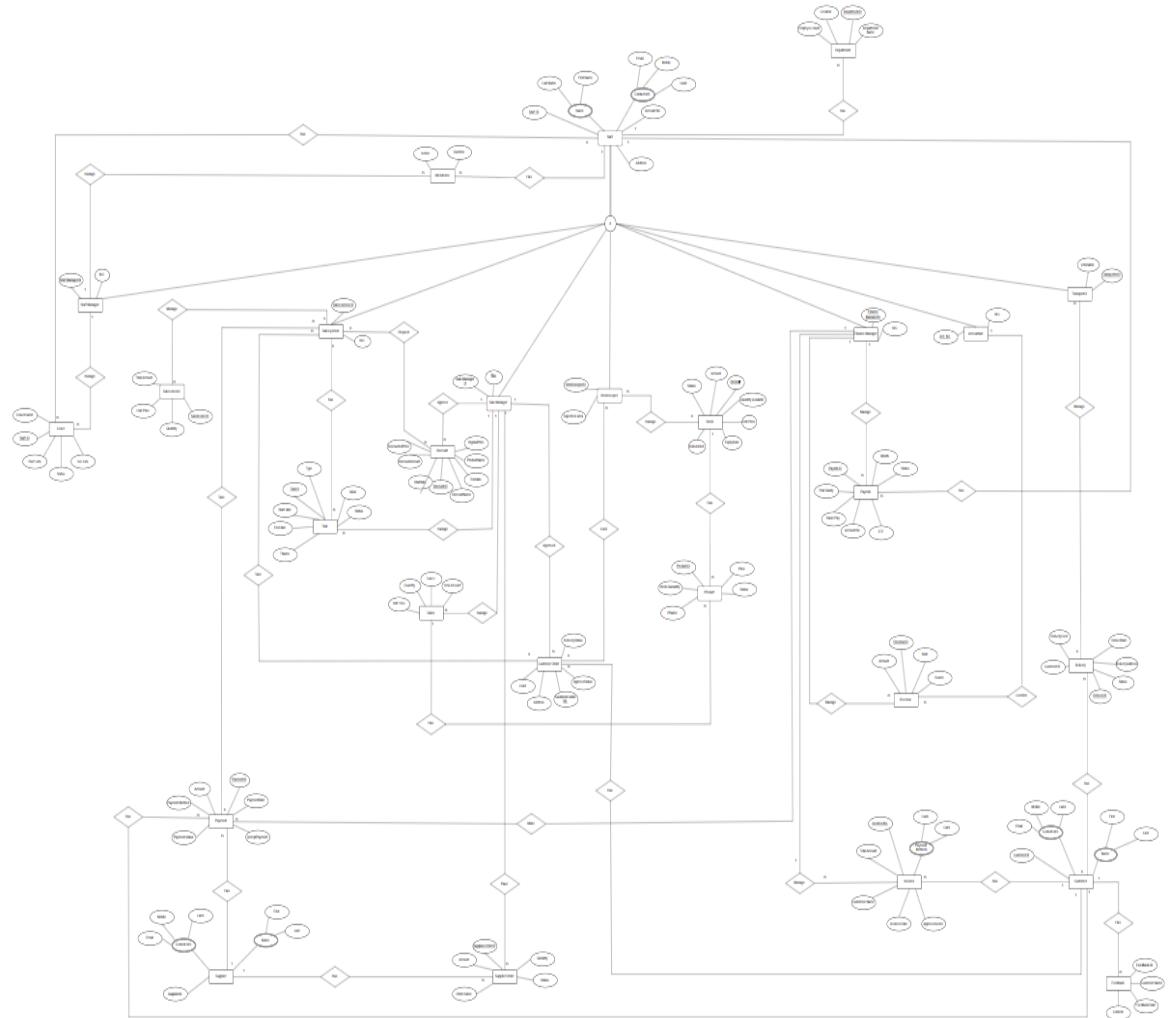




Class Diagram of Proposed System



3.3 ER Diagram of the Proposed System



3.4 Chapter Summary

As described in the above chapter, Introduction about the analysis and the current system and the proposed system are analysed with the help of diagrams.

In brief, UML stands for Unified Modelling Language. It is a standard visual language for describing modelling and documenting the components and structure of the software system. Under UML diagrams, several other main diagram types were used for our project.

They are,

- Class Diagrams
- Sequence Diagrams
- Use Case Diagrams
- ER Diagrams

By that diagrams represent the process of the system.

Chapter 04: Solution Design

4.1 Introduction

This chapter presents the design of the proposed solution for the **OMIK Distributor Data Management System**. It outlines how the system's interfaces were designed to ensure ease of access and usability for all users. We have prioritized simplicity and clarity in the design, making sure that users can easily navigate the system. The interfaces are created with intuitive features to enhance the user experience, focusing on core functions like inventory management, order processing, and supplier coordination. Below, you will find details on how these user interfaces were developed, incorporating the key features needed to efficiently manage the distribution system.

4.2 Interface Design

Interface No: 01

Interface Name: Home Page

Description: This is the home page of our web system.



Interface No: 02

Interface Name: Staff Dashboard

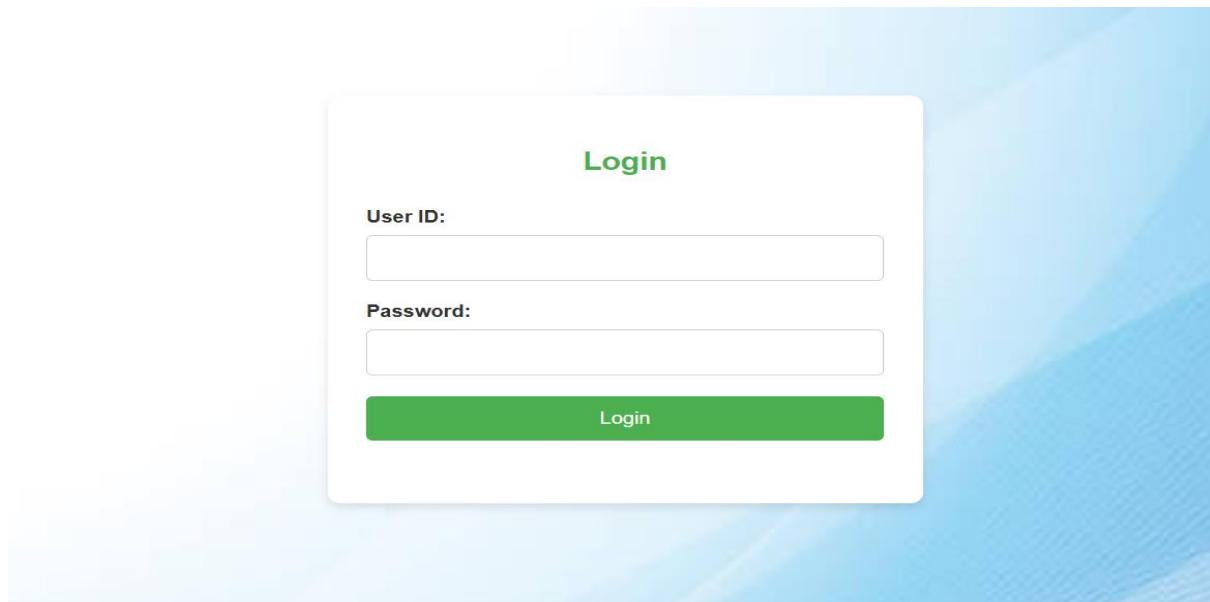
Description: This is the Staff Dashboard of our web system.

A screenshot of a web application's staff dashboard. On the left, a vertical teal sidebar features a "BACK" button at the top. The main area has a light blue gradient background. At the top center, the text "OMIK DISTRIBUTOR" is displayed above a smaller "STAFF DASHBOARD" label. Below this, there is a 3x2 grid of eight dark blue rectangular buttons, each containing a staff role name. The roles are arranged in three rows: Row 1: Owner, Staff Manager; Row 2: Sales Manager, Finance Manager; Row 3: Accountant, Sales Person; Row 4: Stock Keeper, Transporter. The "Stock Keeper" button is highlighted with a purple glow, indicating it is the active or selected role.

Interface No: 03

Interface Name: Login

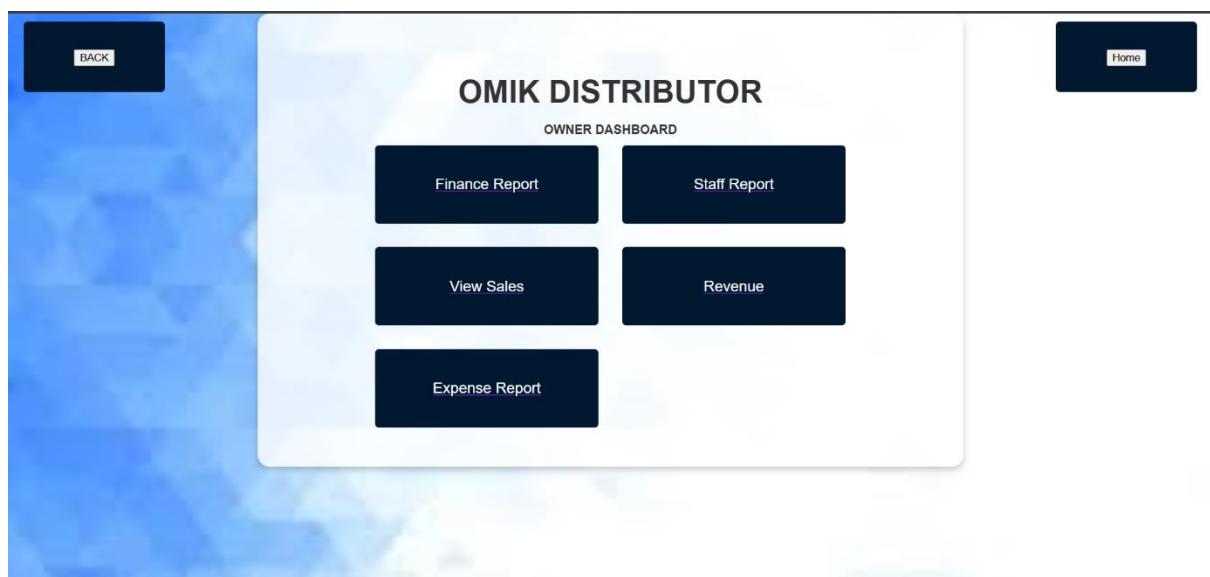
Description: This is the Login page of our web system.



Interface No: 04

Interface Name: Owner Dashboard

Description: This is the Owner Dashboard of our web system.



Interface No: 05

Interface Name: Accountant Dashboard

Description: This is the Accountant Dashboard of our web system.



Interface No: 06

Interface Name: View Payroll

Description: This is the View Payroll of our web system.

The screenshot shows a modal window titled "Payroll Details". It contains a table with the following data:

PAYROLL ID	11
MONTH	january
ACC NO	1289
BASIC SALARY	2500
ETF	350
TOTAL SALARY	2150
STATUS	<input type="button" value="Paid"/>

Below the table are two buttons: "Update Status" and "Back".

Interface No: 07

Interface Name: View Invoice

Description: This is the View Invoice of our web system.

Invoice Details

INVOICE NO	1
CUSTOMER NAME	kulindu
INVOICE DATE	2024-12-04
TOTAL AMOUNT	12000
PAYMENT METHOD	cash
APPROVAL	<input type="button" value="Approved"/>

[Update Approval](#)

[Back](#)

Interface No: 08

Interface Name: View Revenue

Description: This is the View Revenue of our web system.

Revenue Details

REVENUE ID	001
DATE	2024-12-03
SOURCE	snack money
AMOUNT	10000
CONFIRMATION	<input type="button" value="Not Confirm"/>

[Update Status](#)

[Back](#)

Interface No: 09

Interface Name: View Sales Invoice

Description: This is the View Sales Invoice of our web system.

Sale Invoice Details

INVOICE NO	10
UNIT PRICE	150
QUANTITY	10
TOTAL AMOUNT	1500

[Back](#)

Interface No: 10

Interface Name: View Delivery Cost Report

Description: This is the View Delivery Cost Report of our web system.

Delivery Report Details

DELIVERY ID	01
CUSTOMER ID	12
DELIVERY ADDRESS	hanwella
DELIVERY DATE	2024-12-03
DELIVERY COST	15000
STATUS	delivered

[Back](#)

Interface No: 11

Interface Name: View Payment

Description: This is the View Payment of our web system

Payment Report Details

PAYMENT ID	009
PAYMENT METHOD	cash
PAYMENT DATE	2024-12-13
AMOUNT	20000
STATUS	paid

[Back](#)

Interface No: 12

Interface Name: Generate Expense Report

Description: This is the View Delivery Cost Report of our web system

Expense Report

Expense Date:

mm / dd / yyyy X

Description:

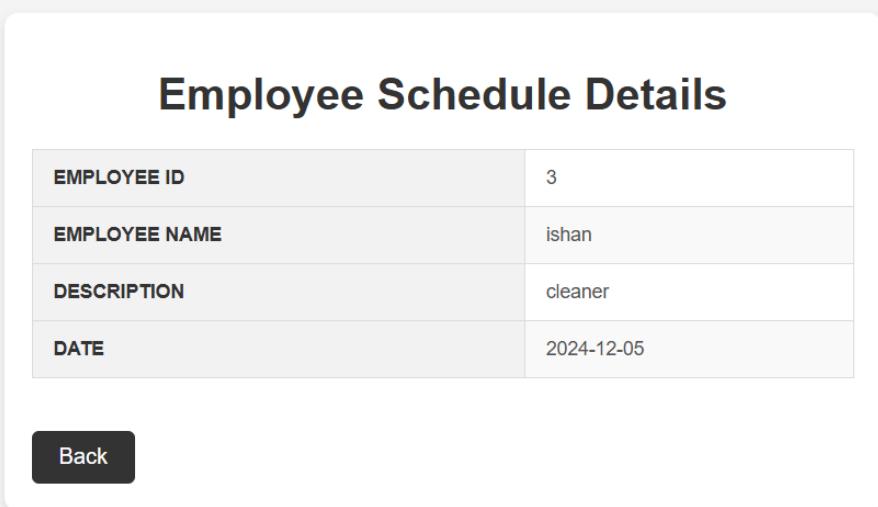
Amount:

[Save Report](#)

Interface No: 13

Interface Name: View Employee Schedule

Description: This is the View Employee Schedule of our web system



The screenshot shows a modal window titled "Employee Schedule Details". Inside the modal, there is a table with four rows:

EMPLOYEE ID	3
EMPLOYEE NAME	ishan
DESCRIPTION	cleaner
DATE	2024-12-05

At the bottom left of the modal is a "Back" button.

Interface No: 14

Interface Name: Finance Manager Dashboard

Description: This is the Finance Manager Dashboard of our web system



The screenshot shows the "FINANCE MANAGER DASHBOARD" section of the OMIK DISTRIBUTOR interface. It features a grid of eight buttons:

- Generate Finance Report
- Generate Payroll
- View Expense Report
- Expired Product Payment
- View Customer Payments
- View Customer Orders
- Generate Revenue
- Supplier Orders Payment
- Delivery Cost Report
- View Employee Schedule

Interface No: 15

Interface Name: generate financial report

Description: This is the generate financial report of our web system

Generate Financial Report

Report Name

Report Date
 mm/dd/yyyy

Amount (in Rs)

Description
Provide additional details about the report

Interface No: 16

Interface Name: generate payroll

Description: This is the generate payroll of our web system

Back

Generate Payroll

Payroll ID:

Month:

Account No:

Basic Pay:

ETF:

Total Salary:

Interface No: 17

Interface Name: generate financial report

Description: This is the generate financial report of our web system

View Expense Report

Enter Date:

×

View Report

DATE	DESCRIPTION	AMOUNT
2024-12-30	snacks	1250

Interface No: 18

Interface Name: view expired product

Description: This is the view expired product of our web system

All Expired Products

PRODUCT ID	QUANTITY	AMOUNT	TOTAL AMOUNT
134	15	100	1500
22	10	100	1000

Interface No: 19

Interface Name: view invoice details

Description: This is the view invoice details of our web system

Invoice Details

[Back](#)

INVOICE NO	1
CUSTOMER NAME	kulindu
INVOICE DATE	2024-12-04
TOTAL AMOUNT	12000
PAYMENT METHOD	cash
APPROVAL	Approved

Interface No: 20

Interface Name: view customer orders

Description: This is the view customer orders of our web system

View Customer Order Details

CUSTOMER ID	002
ADDRESS	kaduwela

[Back](#)

Interface No: 21

Interface Name: generate revenue

Description: This is the revenue generate of our web system

Generate Revenue

Revenue ID:

Amount (Rs.):

Source:

Date (YYYY-MM-DD):

 mm/dd/yyyy (dd/mm/yyyy)

Submit Revenue

Interface No: 22

Interface Name: view supplier orders

Description: This is the view supplier orders of our web system

View Supplier Order

ORDER ID	11
ORDER NAME	snackorder
AMOUNT	100
QUANTITY	30
STATUS	Not Paid ▾

Update Status

Back

Interface No: 23

Interface Name: view delivery details

Description: This is the view delivery details of our web system

Delivery Report Details

DELIVERY ID	01
CUSTOMER ID	12
DELIVERY ADDRESS	hanwella
DELIVERY DATE	2024-12-03
DELIVERY COST	15000
STATUS	delivered

[Back](#)

Interface No: 24

Interface Name: view attendance

Description: This is the view attendance of our web system

View Attendance Details

EMPLOYEE ID	2
DATE	2024-12-03
IN TIME	22:42:00
OUT TIME	23:42:00

[Back](#)

Interface No: 25

Interface Name: sales person dashboard

Description: This is the sales person dashboard of our web system



Interface No: 26

Interface Name: add customer payment

Description: This is the add customer payment of our web system

Add Customer Payment

Customer ID

Customer Name

Pay Date

 mm/dd/yyyy

Total Amount

Payment Method

Interface No: 27

Interface Name: add customer orders

Description: This is the add customer orders of our web system

Add Customer Order

Customer ID

Address

Add Order

Interface No: 28

Interface Name: add sale invoice

Description: This is the add sale invoice of our web system

Add Sale Invoice

Sale Invoice ID

Unit Price

Quantity

Total Amount

Outstanding Balance

Add Sale Invoice

Interface No: 29

Interface Name: view products list

Description: This is the view product list of our web system

Product List

Product ID	Product Name	Price	Stock Quantity	Status
12	gold	85	5	available
22	bites	100	20	0
33	mari	100	50	Available

Interface No: 30

Interface Name: generate market analysis report

Description: This is the generate market analysis report of our web system

Market Analysis Report

Salesperson Name

Month

□

Status

Amount

Submit

Interface No: 31

Interface Name: generate discount request

Description: This is the generate discount request of our web system

Discount Request Form

Discount ID

Product Name

Original Price

Discount Amount (%)

Start Date

 □

End Date

 □

Discounted Price: \$0.00

Submit

Interface No: 32

Interface Name: view expired product

Description: This is the view expired product of our web system

All Expired Products			
Product ID	Quantity	Amount	Total Amount
134	15	100	1500
22	10	100	1000

Interface No: 33

Interface Name: view stock list

Description: This is the view stock list of our web system

Stock List

Stock ID	Amount	Quantity Available	Unit Price	Status	Stock Date	Expiry Date
12	12000	100	120	Available	2024-12-01	2024-12-30

Interface No:34

Interface Name: view delivery report

Description: This is the view delivery report of our web system

Delivery Report					
Delivery ID	Customer ID	Delivery Address	Delivery Date	Delivery Cost	Status
01	12	hanwella	2024-12-03	15000	delivered
100	10	nugegoda	2024-12-11	10000	Completed

Interface No: 35

Interface Name: view and update task manager

Description: This is the view and update task manager of our web system

Task Management							
TaskID	Task Name	Start Date	End Date	Type	Value	Status	Action
1	take orders	2024-12-22	2024-12-28	0	150	Done	<button>Update</button>
2	shipping orders	2024-12-01	2024-12-02	order type	100	Done	<button>Update</button>
3	take money	2024-12-15	2024-12-21	0	100	Done	<button>Update</button>
4	shipment	2024-12-01	2024-12-22	0	10000	Done	<button>Update</button>
5	shipment	2024-12-26	2024-12-31	order	3000	Done	<button>Update</button>
6	given order	2024-12-16	2024-12-20	order	10	Done	<button>Update</button>

Interface No: 36

Interface Name: sale manager dashboard

Description: This is the sale manager dashboard of our web system

The dashboard features a central title "OMIK DISTRIBUTOR" and a subtitle "SALES MANAGER DASHBOARD". It is organized into a grid of nine dark blue rectangular buttons, each containing a white link:

- Place Supplier Order
- Update Supplier Order
- Customer Feedbacks
- Employee Schedule
- Generate Sales report
- Assign Task
- Customer Order History
- View Product Certification
- View Discount Request
- Market Analysis Report

Interface No: 37

Interface Name: place supplier order

Description: This is the place supplier order of our web system

Place Supplier Order

Supplier Order ID:

Order Name:

Unit Price:

Quantity:

Add

Interface No: 38

Interface Name: update supplier orders

Description: This is the update supplier orders of our web system

	Order Name	Unit Price	Quantity	Actions
	snackorder	100	30	<input type="button" value="Update"/> <input type="button" value="Delete"/>
	ash	500	50	<input type="button" value="Update"/> <input type="button" value="Delete"/>
	creamcracker	20000	20	<input type="button" value="Update"/> <input type="button" value="Delete"/>

Interface No: 39

Interface Name: view customer feedback

Description: This is the view customer feedback of our web system

FEEDBACK ID	CUSTOMER NAME	DATE	CONTENT
1	kalpa	2024-12-10	checking
2	ishan	2024-12-11	checkin2
3	kullindu	2024-12-24	checkin3

Interface No: 40

Interface Name: add tasks

Description: This is the add tasks of our web system

Add Task

Task Name:

Start Date: mm / dd / yyyy

End Date: mm / dd / yyyy

Type:

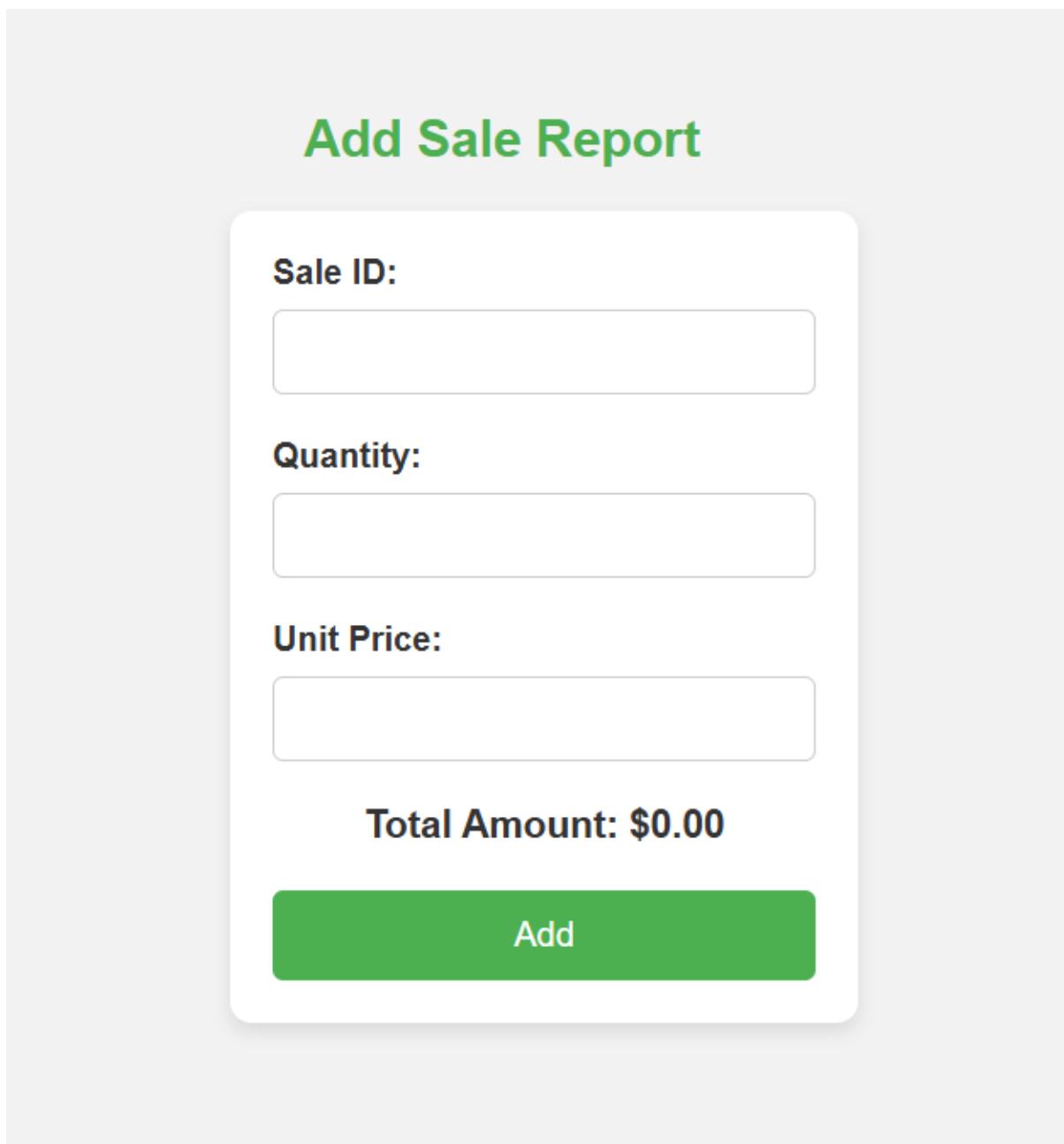
Value:

Add Task

Interface No: 41

Interface Name: add sale report

Description: This is the add sale report of our web system



The screenshot shows a mobile application interface titled "Add Sale Report" in green at the top. Below the title are three input fields with labels: "Sale ID:", "Quantity:", and "Unit Price:", each followed by a text input box. At the bottom, it displays "Total Amount: \$0.00" and a large green "Add" button.

Add Sale Report

Sale ID:

Quantity:

Unit Price:

Total Amount: \$0.00

Add

Interface No: 42

Interface Name: view products

Description: This is the view products of our web system

Product ID	Product Name	Price	Product Certificate
6	creamcracker	450	good

Interface No: 43

Interface Name: view and approve discount

Description: This is the view and approve discount of our web system

Discount ID	Product Name	Original Price	Discount Amount	Start Date	End Date	Discounted Price	Approval	Actions
100	bites	100	28	2024-12-22	2024-12-26	72	<input type="button" value="Not Approved"/>	<input type="button" value="Update"/>
111	biscuit	1000	2	0000-00-00	2024-12-30	980	<input type="button" value="Approved"/>	<input type="button" value="Update"/>
333	snack	2000	30	0000-00-00	2024-12-31	1400	<input type="button" value="Approved"/>	<input type="button" value="Update"/>
444	cream	350	35	0000-00-00	2024-12-26	227.5	<input type="button" value="Approved"/>	<input type="button" value="Update"/>
55	biscuit	500	40	0000-00-00	2024-12-26	300	<input type="button" value="Approved"/>	<input type="button" value="Update"/>

Interface No: 44

Interface Name: view market analysis

Description: This is the view market analysis of our web system

Market Analysis			
Salesperson	Month	Status	Amount
kkk		profit	1000
ppp	2024-03	profit	2500
lll	2024-07	lose	2500

Interface No: 45

Interface Name: view supplier order

Description: This is the view supplier orders of our web system

Supplier Order ID	Order Name	Amount	Status	Quantity
11	snackorder	100	Not Paid	30
45	ash	500		50
99	creamcracker	20000	Shipped	20

Interface No: 46

Interface Name: view and update stock

Description: This is the view and update stock of our web system

PID	Product Name	Price	Stock Quantity	Status	Action
12	gold	85	5	available	<input type="text" value="gold"/> <input type="text" value="85"/> <input type="text" value="5"/> <input type="text" value="available"/> <input type="button" value="Update"/>
22	bites	100	20	0	<input type="text" value="bites"/> <input type="text" value="100"/> <input type="text" value="20"/> <input type="text" value="0"/> <input type="button" value="Update"/>
33	mari	100	50	Available	<input type="text" value="mari"/> <input type="text" value="100"/> <input type="text" value="50"/> <input type="text" value="Available"/>

Interface No: 47

Interface Name: add products

Description: This is the add products of our web system

Add Product

Product ID:

Product Name:

Price:

Stock Quantity:

Status:

Select Status

Add Product

Interface No: 48

Interface Name: view and approve customer orders

Description: This is the vie and approve customer orders of our web system

View & Approve Customer Orders					
Customer ID	Address	Load	Approval Status	Delivery Status	Actions
002	kaduwela	load	Approved ▾	Delivered	<button style="border: none; background-color: green; color: white; padding: 5px;">Update</button>
3	homagama		Approved ▾	Pending	<button style="border: none; background-color: green; color: white; padding: 5px;">Update</button>

Interface No: 49

Interface Name: view stock status

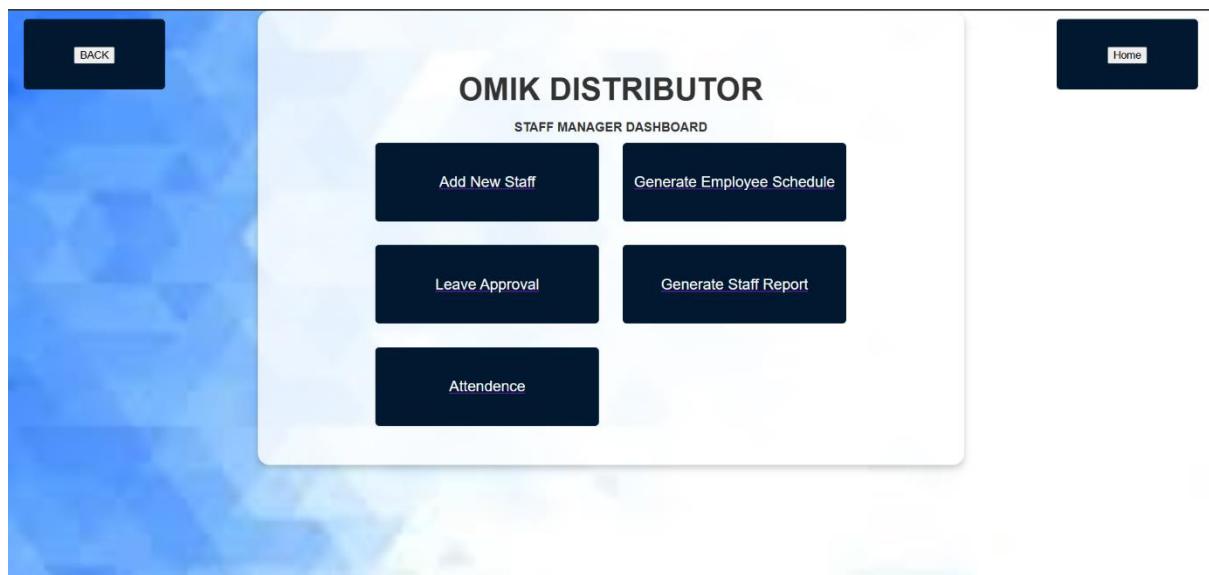
Description: This is the view stock status of our web system

Stock ID	Amount	Quantity Available	Unit Price	Status	Stock Date	Expiry Date
12	12000	100	120	Available	2024-12-01	2024-12-30

Interface No: 50

Interface Name: staff manager dashboard

Description: This is the staff manager dashboard of our web system



Interface No: 51

Interface Name: view and approve leaves

Description: This is the view and approve leaves of our web system

Leave Request Table

SID	Leave Date	End Date	Reason	Status	Update
2	2024-12-05	2024-12-07	sick	Not Approved	<button>Update</button>

Interface No: 52

Interface Name: add staff

Description: This is the add staff of our web system

Add New Staff

Staff ID:

Full Name:

Email:

Phone Number:

Account No.:

Department:

Address:

Add Staff

Interface No: 53

Interface Name: generate staff report and view attendance

Description: This is the generate staff report and view attendance of our web system

Employee ID	Date	In Time	Out Time
1	2024-12-09	00:00:10	00:00:22
2	2024-12-03	22:42:00	23:42:00
3	2024-12-11	00:00:08	00:00:05

Generate Staff Report

Staff ID:

Staff Name:

Date:

Attendance Status:

Comments:

Submit Report

Interface No: 54

Interface Name: generate employee schedule

Description: This is the generate employee schedule of our web system

Generate Employee Schedule

ESID

ESName

Description

Date

mm/dd/yyyy calendar icon

Generate Schedule

Interface No: 55

Interface Name: add attendance and request leave

Description: This is the add attendance and request leave of our web system

Add Attendance & Request Leave

Add Attendance

Employee ID:

Date:

 mm/dd/yyyy (clear)

InTime:

 --:-- -- (clear)

OutTime:

 --:-- -- (clear)

Submit Attendance

Request Leave

Staff ID:

Leave Date:

 mm/dd/yyyy (clear)

End Date:

 mm/dd/yyyy (clear)

Reason for Leave:

Request Leave

Interface No: 56

Interface Name: stock keeper dashboard

Description: This is the stock keeper dashboard of our web system



Interface No: 57

Interface Name: view customer orders

Description: This is the view customer orders of our web system

View Customer Order Details

CUSTOMER ID	002
ADDRESS	kaduwela
LOAD ORDER	<input type="button" value="load ▾"/>

Interface No: 58

Interface Name: generate stock report

Description: This is the generate stock report of our web system

Generate Stock Report

StockID:

Amount:

Quantity Available:

Unit Price:

Status:

Date Added:
 □

Expiry Date:
 □

Generate Report

Interface No: 59

Interface Name: transporter dashboard

Description: This is the transporter dashboard of our web system



Interface No: 60

Interface Name: view employee schedule

Description: This is the view employee schedule of our web system

View Employee Schedule				
Schedule ID	Employee Name	Description	Date	
3	ishan	cleaner	2024-12-05	
5	peter	driver	2024-12-30	
50	james	take customer orders	2024-12-08	

Interface No: 61

Interface Name: view and update customer order status

Description: This is the view and update customer order status of our web system

Customer Orders

Customer ID	Address	Approve Status	Load	Delivery Status
002	kaduwela	Approved	load	Delivered
3	homagama	Approved		Pending

Update Delivery Status

Customer ID:

Delivery Status:

Interface No: 62

Interface Name: add expired products

Description: This is the add expired products of our web system

Add Expired Products

Product ID:

Quantity:

Amount (per unit):

Total Amount:

Add Product

Interface No: 63

Interface Name: generate delivery cost report

Description: This is the generate delivery cost report of our web system

Generate Delivery Cost Report

Delivery ID:

Customer ID:

Delivery Address:

Delivery Date:

 mm / dd / yyyy

Delivery Cost:

Status:

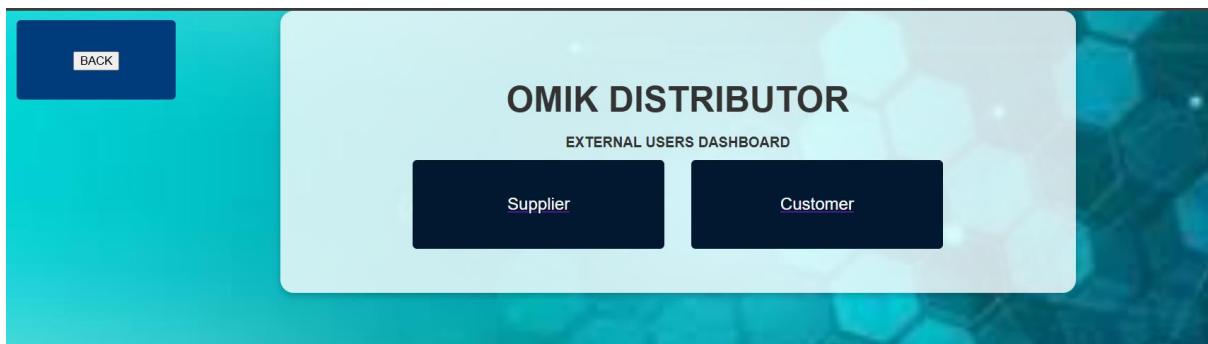
 Pending

Generate Report

Interface No: 64

Interface Name: external user dashboard

Description: This is the external user dashboard of our web system



Interface No: 65

Interface Name: transporter dashboard

Description: This is the transporter dashboard of our web system



Interface No: 66

Interface Name: order management of supplier

Description: This is the order management of supplier of our web system

Order Management

ID	Order Name	Amount	Status	Quantity
11	snackorder	100	Pending ▾	30
45	ash	500	Pending ▾	50
99	creamcracker	20000	Shipped ▾	20

Interface No: 67

Interface Name: upload product certification

Description: This is the product certification uploaded of our web system

Upload Product Certification

Product ID

Product Name

Price

Product Certification

Upload

Interface No: 68

Interface Name: view payment report and approve

Description: This is the view payment report and approve of our web system

Payment Report Details

PAYMENT ID	009
PAYMENT METHOD	cash
PAYMENT DATE	2024-12-13
AMOUNT	20000
STATUS	paid
APPROVAL	Accepted ▾

Update Approval

Back

Interface No: 69

Interface Name: view expired product

Description: This is the view expired product of our web system

The screenshot displays a user interface titled "All Expired Products". Below the title is a table with four columns: "PRODUCT ID", "QUANTITY", "AMOUNT", and "TOTAL AMOUNT". The table contains two rows of data:

PRODUCT ID	QUANTITY	AMOUNT	TOTAL AMOUNT
134	15	100	1500
22	10	100	1000

Interface No: 70

Interface Name: customer dashboard

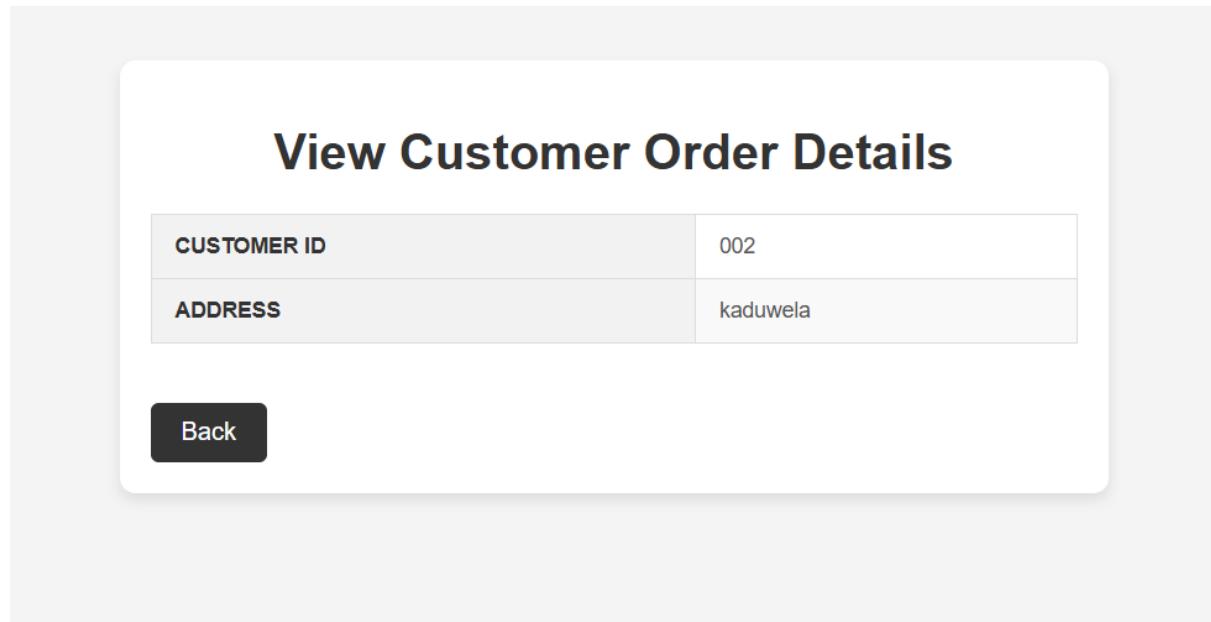
Description: This is the customer dashboard of our web system

The screenshot shows the "OMIK DISTRIBUTOR" customer dashboard. The dashboard has a header with the text "OMIK DISTRIBUTOR" and "CUSTOMER DASHBOARD". It features three main buttons: "View Order", "View Delivery Status", and "Give Feedback". On the left side, there is a blue sidebar with a "BACK" button. On the right side, there is a dark blue sidebar with a "Home" button.

Interface No: 71

Interface Name: view customer order details

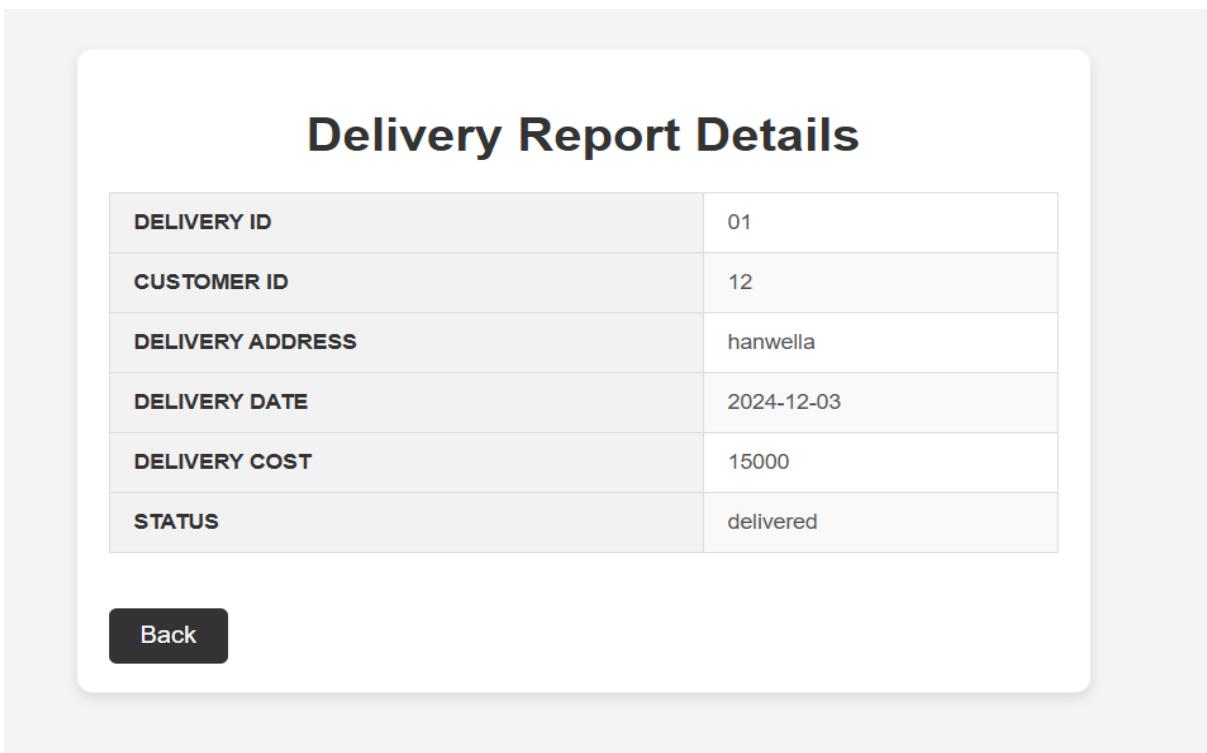
Description: This is the view customer order details of our web system



Interface No: 72

Interface Name: view delivery report details

Description: This is the view delivery report details of our web system



Interface No: 73

Interface Name: customer feedbacks

Description: This is the customer feedbacks of our web system

Give Feedback

FeedbackID:

Customer Name:

Date:
 mm/dd/yyyy

Content:

Submit Feedback

4.3 Database Design

Owner

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Owner ID
Email	varchar	50	Owner Email
Password	varchar	50	Owner Password

Staff Manager

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Staff Manager ID
Email	varchar	50	Staff Manager Email
Password	varchar	50	Staff Manager Password

Sales Manager

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Sales manager ID
Email	varchar	50	Sales manager Email
Password	varchar	50	Sales manager Password

Finance Manager

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Finance manager ID
Email	varchar	50	Finance manager Email
Password	varchar	50	Finance manager Password

Accountant

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	accountant ID
Email	varchar	50	accountant Email
Password	varchar	50	accountant Password

Sales Person

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Sales person ID
Email	varchar	50	Sales person Email
Password	varchar	50	Sales person Password

Stock Keeper

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Stock keeper ID
Email	varchar	50	Stock keeper Email
Password	varchar	50	Stock keeper Password
Supervise_Area	varchar	50	Stock keeper Supervise Area

Transporter

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Transporter ID
Email	varchar	50	Transporter Email
Password	varchar	50	Transporter Password

Supplier

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Supplier ID
Email	varchar	50	Supplier Email
Password	varchar	50	Supplier Password

Customer

Primary Key-ID

File Name	Data Type	Data Size	Description
ID	varchar	20	Customer ID
Email	varchar	50	Customer Email
Password	varchar	50	Customer Password

Attendance

Primary Key-empID

File Name	Data Type	Data Size	Description
empID	varchar	50	EmployeeID
date	date		Date
Intime	time		In Time
Outtime	time		Out Time

Customer Order

Primary Key-cusid

File Name	Data Type	Data Size	Description
cusID	varchar	50	Customer ID
Address	varchar	50	Customer Address
Load	varchar	50	Loading Status
Approvestatus	varchar	50	Approve Status
Deliverystatus	varchar	50	Delivery Status

Delivery Report

Primary Key-deliveryID

File Name	Data Type	Data Size	Description
deliveryID	varchar	20	Delivery ID
customerID	varchar	50	Customer ID
deloveryAdd	varchar	50	Delivery Address
deliverydate	date		Delivery Date
deliverycost	doublr		Delivery Cost
status	varchar	40	Status

Discount

Primary Key-discountID

File Name	Data Type	Data Size	Description
discountID	varchar	50	Discount ID
Productname	varchar	50	Product Name
Originalprice	double		Original Price
Discountamount	double		Discount Amount
Enddate	date		End date
discountedprice	double		Discounted Price
Startdate	date		Start Date
Approval	varchar	50	Approval

Employee Schedule

Primary Key-esID

File Name	Data Type	Data Size	Description
esID	varchar	50	Employee Schedule ID
esName	varchar	50	Employee Schedule Email
description	varchar	500	Description
date	date		Date

Expense Report

Primary Key-Date

File Name	Data Type	Data Size	Description
Date	date		Date
Description	varchar	100	Description
Amount	double		Amount

Expired Product

Primary Key-productID

File Name	Data Type	Data Size	Description
productID	varchar	50	Product ID
Quantity	int	50	Quantity
Amount	double		Unit Price
Totamount	double		Total Amount

FeedBack

Primary Key-feedbackID

File Name	Data Type	Data Size	Description
feedbackID	varchar	50	FeedBack ID
Customername	varchar	50	Customer Name
Date	date		Date
Content	varchar	500	Content

Financial Report

Primary Key-reportName

File Name	Data Type	Data Size	Description
reportName	varchar	50	Report Name
reportdate	date		Report Date
Amount	double		Amount
description	varchar	100	Description

Invoice

Primary Key-invoiceno

File Name	Data Type	Data Size	Description
invoiceno	varchar	50	Invoice Number
cusname	varchar	50	Customer Name
invoucedate	date		Invoice Date
totamount	double		Total Amount
paymentmethod	varchar	50	Payment Method
approve	varchar	40	Invoice Approval

Leave Request

Primary Key-ID

File Name	Data Type	Data Size	Description
sID	varchar	50	Staff ID
Leavedate	date		Leave Date
Enddate	date		End date
reason	varchar	50	Reason
status	varchar	50	Status

Market Analysis

File Name	Data Type	Data Size	Description
salesperson	varchar	50	Sales Person Name
month	varchar	50	Month
status	varchar	50	Sales Status
amount	double		Amount

Payment

Primary Key-payID

File Name	Data Type	Data Size	Description
payID	varchar	50	Payment ID
paymethod	varchar	50	Payment Method
paydate	date		Paid Date
amount	double		Amount
paystatus	varchar	50	Payment Status
acceptpay	varchar	50	Payment Acceptence

Payroll

Primary Key-payrollID

File Name	Data Type	Data Size	Description
payrollID	varchar	20	Customer ID
accno	int	50	Customer Email
month	varchar	20	Customer Password
basic	double		Customer Password
etf	double		Customer Password
totsalary	double		Customer Password
status	varchar	40	Customer Password

Product Certification

Primary Key-productID

File Name	Data Type	Data Size	Description
productID	varchar	50	Product ID
pName	varchar	50	Product Name
price	double		Product Price
Productcertificat	varchar	50	Product Certification

Products

Primary Key-pID

File Name	Data Type	Data Size	Description
pID	varchar	50	Product ID
pname	varchar	50	Product Name
price	double		Product Price
stockqty	int	50	Stock Quantity
status	varchar	50	Status

Revenue

Primary Key-revenueID

File Name	Data Type	Data Size	Description
revenueID	varchar	50	Revenue ID
Date	date		Date
Source	varchar	50	Source
Amount	double		Amount
Confirmation	varchar	50	Confirmation

Saleinvoice

Primary Key-saleinvoiceID

File Name	Data Type	Data Size	Description
saleinvoiceID	varchar	50	Sale Invoice ID
Uprice	double		Unit Price
Qty	int	50	Quantity
Totamount	double		Total Amount
Outstandingbalance	varchar	50	Outstanding Balance

Salereport

Primary Key-saleID

File Name	Data Type	Data Size	Description
saleID	varchar	50	Sales ID
qty	int	50	Quantity
totamount	double		Total Amount
unitprice	double		Unit Price

Staff

Primary Key-staffID

File Name	Data Type	Data Size	Description
staffID	varchar	50	Staff ID
staffname	varchar	50	Staff Name
email	varchar	50	Email
phone	int	50	Phone
position	varchar	50	Position
department	varchar	40	Department
address	varchar	50	Address

Stock

Primary Key-stockID

File Name	Data Type	Data Size	Description
stockID	varchar	20	Stock ID
amount	double		Amount
quntyavailable	int	50	Quantity Availability
unitprice	double		Unit Price
status	varchar	50	Status
stockdate	date		Stock Date
expirydate	date		Expiry Date

Supplier Order

Primary Key-suporderID

File Name	Data Type	Data Size	Description
suporderID	varchar	20	Supplier Order ID
ordername	varchar	50	Order Name
amount	double		Amount
status	varchar	50	Status
qty	int	50	Quantity

Tasks

Primary Key-taskID

File Name	Data Type	Data Size	Description
taskID	int	11	Task ID
taskname	varchar	50	Task Name
startdate	date		Task Start Date
enddate	date		Task End Date
type	varchar	50	Task Type
Value	varchar	40	Task Amount
Status	varchar	50	Status

4.4 Report Layouts

Layout No: 01

Report Layout Name: Financial Report

Description: This is the Daily Financial Report

Financial Report			
Report Name	Report Date	Amount	Description
financial	2024-12-13	20000	vvgugsphwbsowh ou
financial repo	2024-12-19	1123	www
financial repor	2024-12-19	1123	www
financial report	2024-12-05	1000	checking

Layout No: 02

Report Layout Name: Sales Report

Description: This is the Sales Report of the Products.

Sales Report			
Sale ID	Quantity	Total Amount	Unit Price
10	100	25000	250
11	10	10000	1000
22	10	2500	250
23	120	120000	1000
55	20	2000	100

Layout No: 03

Report Layout Name: Expense Report

Description: This is the Daily Expense Report of the Products.

Expense Report		
Date	Description	Amount
2024-12-30	snacks	1250

Layout No: 04

Report Layout Name: Revenue Report

Description: This is the Daily Revenue Report of the products.

Revenue Report				
Revenue ID	Date	Source	Amount	Confirmation
001	2024-12-03	snack money	10000	Not Confirm
002	2024-12-08	biscuit	1000	
129	2024-12-19	biscuit	20000	Confirm

Layout No: 05

Report Layout Name: Staff Report

Description: This is the Daily Staff Attendance Report.

Staff Report				
Staff ID	Staff Name	Date	Attendance Status	Comments
2	peter	2024-12-03	Present	drive

Chapter 05: Conclusion

Although the management system at OMIK Distribution was maintained using a manual, paper-based system, the company faced various challenges over time. To address these issues, we proposed the development of the OMIK Distributor Data Management System using modern technology. This web application will help manage all key tasks, such as inventory tracking, order processing, and supplier coordination.

Before creating this system, we consulted with the management team and gathered the necessary information. Based on these insights, the user interface was designed to be intuitive and easy for all users to navigate and operate.

Leveraging new features and technologies, the system is designed to accommodate users of all levels, from junior staff to management, ensuring accessibility and ease of use.

Ultimately, the OMIK Distributor Data Management System is proposed as a successful solution to the company's operational challenges, made possible through the collaborative efforts of the entire team.