BURGERTORY'S STOCK MANAGEMENT SYSTEM

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BORANG PENGESAHAN STATUS LAPORAN

JUDUL: BURGERTORY'S STOCK MANAGEMENT SYSTEM

SESI PENGAJIAN: 2022/2023

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BURGERTORY'S STOCK MANAGEMENT SYSTEM

SYAZWINA BINTI AHAMED WAJHAR ALI

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Software Development) with Honours.

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2023

DECLARATION

I hereby declare that this project report entitled

BURGERTORY'S STOCK MANAGEMENT SYSTEM

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT: SYAZWINA BINTI AHAMED WAJHAR ALI Date : 13 SEPTEMBER 2023

I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of [Computer Science (Software Development)] with Honours.

SUPERVISOR : TS. DR. ABDUL KARIM BIN MOHAMAD Date : 14/09/2023

DEDICATION

I am grateful to Allah Almighty, the Creator of the universe, for His blessings and permission to complete this project report, which is the result of my work in the final year of my Bachelor of Science degree at Universiti Teknikal Malaysia Melaka (UTeM). Through this project, the relevant parties can gain some insight into the activities that I have undertaken during this final year project.

I offer my sincere appreciation to my beloved parents and family, who have never ceased to provide me with encouragement and support. I would also like to express my gratitude to all the staff who have taken care of the final year undergraduate students, who have tirelessly provided me with valuable guidance that will be beneficial to me in the future, as well as my fellow students at UTeM.

I extend my highest appreciation to the lecturers in the Faculty of Information and Communication Technology, especially my supervisor for the Bachelor of Information Technology Science program, who has assisted me in writing this report and sharing their knowledge with me.

It is my hope that this project report for the final year of my Bachelor of Science degree will provide some guidance and knowledge for the future.

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ABSTRACT

Burgertory’s restaurant faces challenges in accurately managing stock levels, leading to problems such as food wastage, stock-outs, and dissatisfied customers. Manual stock tracking is time-consuming and prone to human error, making it difficult to keep track of inventory levels, especially during peak hours. Additionally, inaccurate tracking during the order fulfillment process can result in discrepancies between recorded stock levels and actual stock, leading to stock-outs and lost sales. To address these issues, Burgertory's Stock Management System is proposed. This advanced web-based application automates stock deduction based on customer orders, ensuring real-time updates, and minimizing inventory discrepancies. It incorporates a trigger point mechanism to proactively notify managers when stock levels are understock or overstock, enabling timely action to replenish supplies and avoid shortages, and distribute overstocks item to other branches. The system caters to different user roles, such as customers, admin, managers, riders, and suppliers, providing specific functionalities for each role. Customers can effortlessly place orders, make payments, and track order status. Admin is responsible for managing staff, item menu, supplier, stock, category, and view sales report of all branches. Managers monitor stock levels, order stock from suppliers, distribute stocks to other branches, view menu item details, manage stock quantity and trigger point, and view sales report. Riders receive notifications regarding pending deliveries, update delivery status, and view delivery history while suppliers are responsible to handle inventory orders. By streamlining stock management processes, Burgertory's Stock Management System simplifies stock usage, enhances efficiency, and improves customer satisfaction. The proposed system aims to provide a comprehensive solution to efficiently manage stock levels, streamline operations, and maintain high customer satisfaction.

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LIST OF ABBREVIATIONS

FYP	-	**Final Year Project**
BSMS	-	**Burgertory's Stock Management System**
UTeM	-	**Universiti Teknikal Malaysia Melaka**
IDE	-	**Integrated Development Environment**
RAM	-	**Random Access Memory**
TM	-	**Trademark**
POS	-	**Point of Sales**
SDLC	-	**Software Development Life Cycle**
F&B	-	**Food and Beverage**

LIST OF ATTACHMENTS

CHAPTER 1: INTRODUCTION

1.1 Introduction

Burgertory's Stock Management System is an advanced software system that has been designed to streamline and enhance the stock management processes of Burgertory, a renowned food establishment. With its comprehensive features and user-friendly interface, the Stock Management System revolutionizes the way inventory is managed, ensuring optimal efficiency and accuracy.

The system incorporates cutting-edge technology to automate stock deduction based on customer orders, alleviating the burden of manual stock tracking. By automatically deducting stock quantities as orders are placed, the system ensures real-time stock updates and minimizes the risk of inventory discrepancies. Additionally, the system includes a trigger point mechanism that proactively notifies the manager when the stock level falls below a predetermined threshold, enabling timely action to replenish supplies and avoid potential shortages. The system also will notify managers if the stock is overstock.

Burgertory's Stock Management System caters to a range of users, each with their specific roles and functions. Customers can effortlessly place orders, make payments, track their order status, and manage their personal information. The admin role grants staff management capabilities, empowering authorized personnel to add, update, and delete staff members and suppliers. Admin also can add, update and delete stock, menu category, menu item and manage the ingredients for each menu item. And view the sales report for all branches. Managers, in addition to overseeing sales reports, have the authority to manage stock quantity and trigger point and view menu item information of their own branches. They can monitor food stock levels and receive timely notifications when stock quantities are low or high. Managers can also utilize the system to place inventory orders with suppliers, ensuring seamless restocking of supplies, and distribute stock to other branches.

Riders play a pivotal role in the delivery process, receiving notifications regarding pending deliveries, updating delivery statuses (accepted or delivered), and accessing delivery history. Suppliers, on the other hand, are promptly informed when the manager places an inventory order. They receive the order, process it efficiently, and deliver the requested inventory to the designated store.

With its advanced features and user-specific functionalities, Burgertory's Stock Management System serves as a comprehensive solution to efficiently manage stock levels, streamline operations, and maintain high customer satisfaction. By automating stock deduction, providing real-time updates, and enabling seamless communication among stakeholders, this system ensures smooth inventory management and empowers the staff to focus on delivering exceptional service to customers.

1.2 Problem Statement

The popularity of online food ordering has been on the rise in recent years, primarily because of its convenience and speedy service. However, managing the stock of ingredients required for the food preparation process can be a daunting task, especially for restaurants that experience high customer traffic. Inadequate stock management can lead to several problems such as food wastage, stock-outs, and dissatisfied customers.

One of the biggest challenges faced by these restaurants are accurately tracking the stock levels of their ingredients. This can be a tedious and time-consuming task that often requires manual tracking, which is prone to human error. Additionally, it can be difficult to keep track of inventory levels, especially during peak hours, which can result in overstocking or understocking.

Another problem that these restaurants face is the inability to track the stock of ingredients accurately during the order fulfillment process. Inaccurate tracking can lead to discrepancies between the stock levels recorded and the actual stock on the premise. This can result in stock-outs, which can lead to dissatisfied customers, lost sales, and reputational damage.

1.3 Objective

The project embarks on the following objectives:

- **To develop a system to address the need of any industrial company on a regular basis.**

  The system is designed to address the challenges that restaurants face in managing their stock levels and ensure accurate tracking of inventory. By developing a system that is adaptable to different industries, the objective is to provide a solution that can be customized to meet the unique needs of any organization.

- **To manage the stock, purchase, and sales details.**

  The system is designed to streamline the stock management process, enabling managers to easily track inventory levels and make informed decisions about stock purchasing and management. The system also facilitates the tracking of sales and purchase details, providing valuable insights into the organization's performance.

- **To make the stock manageable and simplify the use of stock in the organization.**

  This system can be used to simplify the use of stock in the organization by providing an easy-to-use system for managing inventory levels. The system is designed to be user-friendly and efficient, enabling managers to easily track their inventory levels and make informed decisions about stock management. By simplifying the use of stock in the organization, the system reduces the likelihood of errors and makes the stock management process more streamlined and efficient.

- **To give the organization a competitive advantage.**

  Burgertory's Stock Management System provides an advanced solution that gives organizations a competitive advantage by enabling them to manage their stock levels more efficiently and effectively. By providing real-time stock tracking and management, the system enables organizations to reduce the likelihood of stock-outs and food wastage, while improving customer satisfaction.

1.4 Scope

User Scope for Burgertory's Stock Management System:

a) Customers:

- Choose desired branches to place order**.**
- Add menu to cart and checkout**.**
- Make payment and print receipt.
- Track order status and view delivery history**.**
- Edit personal information and view restaurant contact information.

b) Admin:

- Add, update, and delete the information of staff, suppliers, menu item and its ingredients, stocks, and menu category.
- View sales report of all branches.

c) Managers:

- View stock status (normal/understock/overstock).

- Distribute overstock items to other branches.
- Place inventory order to supplier for understock branches.
- View menu item information of their own branches.
- Manage stock quantity and trigger point.
- Acknowledge stock delivery from suppliers.
- View sales report.

d) Riders:

- Receive notifications regarding pending delivery orders.
- Update the delivery status (accepted or delivered) within the system.
- View the delivery history, including details of completed orders.

C) Suppliers:

- Receive notifications when managers place inventory orders.
- Process and fulfill inventory orders promptly.
- Coordinate with the system to deliver inventory to the designated store.
- View report.

The project scope of this system includes:

Table 1.1: Project Scope

Module	Target User
1. Make an online order. 2. Make payment. 3. View order status. 4. Edit profile.	Customer
1. Order stock from suppliers. 2. Distribute stock to other branches. 3. View menu items available in their own branches. 4. Manage stock quantity and trigger point. 5. View sales report of their own branches.	Manager
1. Add, update, delete staff. 2. Add, update delete suppliers. 3. Add, update, delete stock. 4. Add, update delete menu category. 5. Add, update delete menu item with its ingredient. 6. View sales report for all branches.	Admin
1. View undelivered orders. 2. Manage delivery status (accept/ delivered). 3. View delivered history.	Rider
1. Receive inventory order from manager. 2. Manage inventory order. 3. View inventory report.	Supplier