



Faculty of Computer Science and Information Technology

A Web-Based Satay Sales Management System

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ABSTRACT

Mie Satay Sdn. Bhd. is a well-known halal satay food production business in Malaysia. Mie Satay focus on market strategy to emphasize the quality of their food and services. Currently, Mie Satay encounter difficulty using online marketing to promote their product and also to increase the derivative sales. A web-based system will be developed and implemented for Mie Satay to produce an information accurately, efficiently, on-time, and relevant. The web-based systems allow Mie Satay businesses to serve their customers through a website and doing so will eliminates many problems faced by traditional call-in orders. The web-based development system are designed through an organized method which include of analysis the data, designing, implement, testing and maintenance the system. The proposed web-based system are created based on the requirement and the satisfaction of the user. The system design such as context diagram, DFD and system interface design are discussed further.

ABSTRAK

Mie Satay Sdn. Bhd. ialah perniagaan pengeluaran makanan sate halal yang terkenal di Malaysia. Mie Satay memberi tumpuan kepada strategi pasaran untuk menekankan kualiti makanan dan perkhidmatan mereka. Pada masa ini, Mie Satay menghadapi kesukaran menggunakan pemasaran dalam talian untuk mempromosikan produk mereka dan juga untuk meningkatkan jualan derivatif. Sistem maklumat ringkas berasaskan web akan dibangunkan dan dilaksanakan untuk Mie Satay menghasilkan maklumat dengan tepat, cekap, tepat masa dan relevan. Sistem berasaskan web membolehkan perniagaan Mie Satay melayani pelanggan mereka melalui laman web dan berbuat demikian akan menghapuskan banyak masalah yang dihadapi oleh pesanan menggunakan cara tradisional. Sistem pembangunan berasaskan web direka bentuk melalui kaedah yang teratur yang merangkumi analisis data, mereka bentuk, melaksana, menguji dan menyelenggara sistem. Sistem berasaskan web yang dicadangkan dibuat berdasarkan keperluan dan kepuasan pengguna. Reka bentuk sistem seperti rajah konteks, DFD, ERD, dan reka bentuk sistem dibincangkan dengan lebih lanjut.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Mie Satay Sdn. Bhd. is a well-known halal satay food production business that provides various types of authentic satays which includes chicken, beef, lamb and rabbit. Mie Satay were a family business based on generation to generation and was established on 1963 and located at Jalan Post Office Lama, Kota Bharu, Kelantan. The business has been in the market for nearly 59 years. Nowadays, Mie Satay become one of the famous Kelantanese street stall that serves one of the Malaysian's best satay versions.

Mie Satay focus on market strategy to emphasize the quality of their food and services. Thus, several marketing strategies are developed over the years purposely for maintaining the stability of the family business. For instance, Mie Satay offer an affordable price for each satay food to ensure the customer perception about the price is in line with the perceived value. They also printed-out banner and displayed in front the stall in order to ensure the neighbourhood community are aware with their existence of food family business. However, the mentioned effort seems inadequate and not reliable for the growing of the business in the future.

It is believed that most of their customers are unaware of the varieties of satay food provided as the Mie Satay stall have no online marketing strategies for promoting their food. Mie Satay owner also used a traditional kind of business system where set of order are written and calculated on a piece of paper, instead of using a technology for revise each order. As a result, the stall are missed with some of customers' orders, especially during the seasonal festivals as they received an overwhelmed order during the time.

These difficulties have been seen as an opportunity and lead to an idea to create a web-based information systems design to assist of marketing systems for Mie Satay. The system aims to help the owner of Mie Satay to manage order and derivatives sales respectively. With the help of real-time location intelligence, incorporated in food ordering systems, Mie Satay as the user are able to key-in data into the system and also view the ordering system. The user also can be redirected to cart page where the subtotal and total price shown.

The method for developing the system begins with an interview session with Mie Satay's owner with purpose to collect data that been used in developing web-based systems. The collection data consist of problem that owner had in their business, sell items, criteria's customer that come to their stall and more. From the collection of data the website was drafted. A function of the web-based development where sellers pay attention to a good strategy to market its products so that there will be good feedbacks from customers. For designing the website, a programming and coding with bootstrap must be used. Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website. It is absolutely free to download and use. It is a front-end framework used for easier and faster web development. Flowchart is used in these project to help see a series of programs as a whole, process steps in detail, and complete with activities that occur.

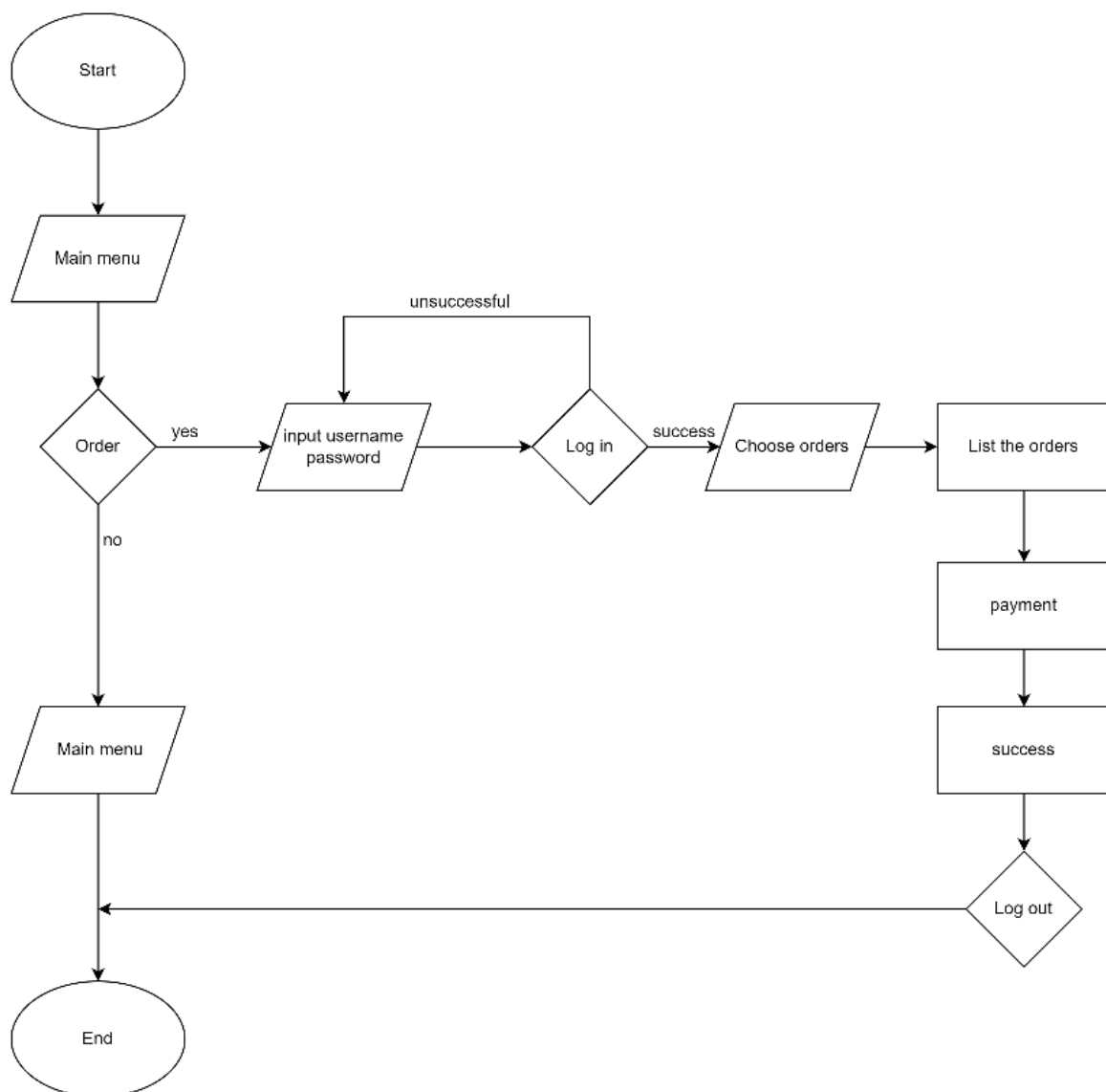


Figure 1 Flowchart of Proposed System

Besides, Use case diagrams (UCD) also can be used to describe the system to be made. Use case diagrams is a model to describe the high-level functions and scope of a system. Thus, such web-based sales management systems are necessary to be implemented as it provides a flawless service by streamlining order management workflow. It also helps to record customer information and order patterns for every transaction which in turn boosts repetitive sales.

1.2 Problem Statement

The general business problem was the owner of Mie Satay encounter difficulty using online marketing to increase the quality of communication with customers and also to increase the derivative sales. The owner's stall was lacking of motivation for online food ordering system which is to provide customers for a way to place an order at a store over the internet.

Additionally, this store was using a traditional manual system in ordering and calculating orders. The set of order are written and calculated manually on a piece of paper. These manual processes are inaccurate, slow, and unreliable. As a result, it is impossible for owner to know whether it is can rely on the accuracy of the numbers or know whether the data they are looking at is current. Manual work also is extremely time-consuming, and it usually entails that more employees are becoming involved in the process and eventually required an excessive additional cost into the business.

1.3 Scope

A brief information web-based system will be developed and implemented for Mie Satay to produce an information accurately, efficiently, on-time, and relevant. It can also be linked between admin and finance to improve in each area performance. The design of this information web-based system is expected to be able to promote food business via the internet and administrators can process data on purchases and sales so that the data reporting system can be found easily, quickly, and accurately. Other than, the project deliverables are expected allowing for full monitoring by admin or owner and develop ordering system for ease customer to make order satay product on website. For the project acceptance criteria, the owners of Mie Satay will test and review the website against the product guidelines before approval for publishing. This project will be constraint at time in which to develop and design a website will acquire some time to attract the customers' attention. If delivery time is cut or rushed, project costs may rise and quality will very likely decline.

1.4 Objectives

1. To create a web-based information systems design to assist marketing systems for Mie Satay.
2. To design and developed an online food ordering systems for meeting owners' satisfaction.
3. To generate a sales report data consists of sales report statistic and list of sales orders.

1.5 Methodology

A web-based development system will be designed through an organized method which include of analysis the data, designing, implement, testing and maintenance the system.

1. Methods in collecting data:

a. Interview

Arranged an interview with the owner of Mie Satay for collecting data needed for designing the website.

2. Designing the website:

b. Flowchart

- Create a flowchart that shows the process of using the website. This method used to describe several aspects of an information system in a clear, concise, and logged manner.

c. DFD (Data Flow Diagram)

- DFD is a step or method to create a system design that is oriented to the flow of data that moves to another system.

d. DBMS (Database management system)

e. Coding using a few languages.

- The language used in PHP, java and c++.

1.6 Significance of Project

The web-based systems allow Mie Satay businesses to serve their customers through a website and doing so will eliminates many problems faced by traditional call-in orders. A well-designed and integrated web-based management system can deliver a number of benefits, including revenue growth, cost reduction, and menu management. It can also support additional outlets and payment solutions, as well as channels for customer engagement.

1.7 Project Schedule

SCHEDULE		WEEK													
		17 Oct 2022	14 Nov 2022	9 Dec 2022	25 Jan 2023	19 Feb 2023	30 Mar 2023	7 April 2023	15 May 2023	29 May 2023	10 June 2023	24 June 2023	29 June 2023	24 July 2023	30 July 2023
1	Briefing for FYP 1	■													
2	1 st Meeting with Supervisor		■												
3	Brief Project Description Submission		■												
4	Preparation and Submission of Full Proposal		■												
6	2 nd Meeting with Supervisor			■	■										
7	Introduction			■	■										
8	3 rd Meeting with Supervisor			■	■										
9	Background Study and Literature Review					■									
10	Methodology and Requirement Analysis & Design					■									
11	Final Report Submission					■									
12	Briefing for FYP 2						■								
13	Submission of proposed/revised structure of FYP report							■							
14	Submission of First Draft for Chapter 4								■	■					
15	Submission of First Draft for Chapter 5, 6 & Abstract for paper										■	■	■		
16	Submission of First Draft for FYP 2 Full Report & Paper													■	
17	Submission of Final Report														■

Table 1. Project Schedule

1.8 Expected Outcome

The expected result of this project is a web-based system that help the owner of Mie Satay to manage order and derivatives sales respectively. This project aims to carried out research, analyze, design and develop a website that supports the marketing as well as the growing sales of Mie Satay business.

CHAPTER 2: BACKGROUND OF STUDY

2.1 Introduction

This chapter provide details on the review of similar systems that are related to this project Web-Based Satay Sales Management System. Currently, Mie Satay encounter difficulty using online marketing to increase the quality of communication with customers and also to increase the derivative sales. Most of their customers are unaware of the varieties of satay food provided as the Mie Satay stall have no online marketing strategies for promoting their food. Mie Satay owner also used a traditional kind of business system where set of order are written and calculated on a piece of paper, instead of using a technology for revise each order. The idea of this project comes from the problem faced by the owner of Mie Satay when the stall were missed with some of customers' orders, especially during the seasonal festivals as they received an overwhelmed order during the time. This store was using a traditional manual system in ordering and calculating orders. These manual processes are inaccurate, slow, and unreliable thus resulting an unmanageable sale for the owner. This chapter will elaborate more on the existing works and tools that make the sales management system works for them.

2.2 Review of The Existing Web System

2.2.1 MenuDrive

MenuDrive is a fully featured restaurant software designed to serve enterprises, and startups. MenuDrive provides end-to-end solutions designed for Windows. This online restaurant system offers menu management, point of sale (POS), reporting/analytics at one place. MenuDrive empowers restaurants and caterers to provide their own branded online and mobile food ordering systems. The cutting-edge technology allows restaurant operators to seamlessly add e-commerce to their businesses, so that customers can order remotely, and driving the sales. This system enables restaurant owners to turn their menus into interactive websites that allow customers to customize their orders. MenuDrive gives owner full control to make changes to their menu, store hours, and promotions from any device with an internet connection. The software use by this system is Java, MySQL database and Html coding in order to create their web-based system.



Figure 2.1 Log in Page

User can view log in page and also can sign up for an account to do ordering.

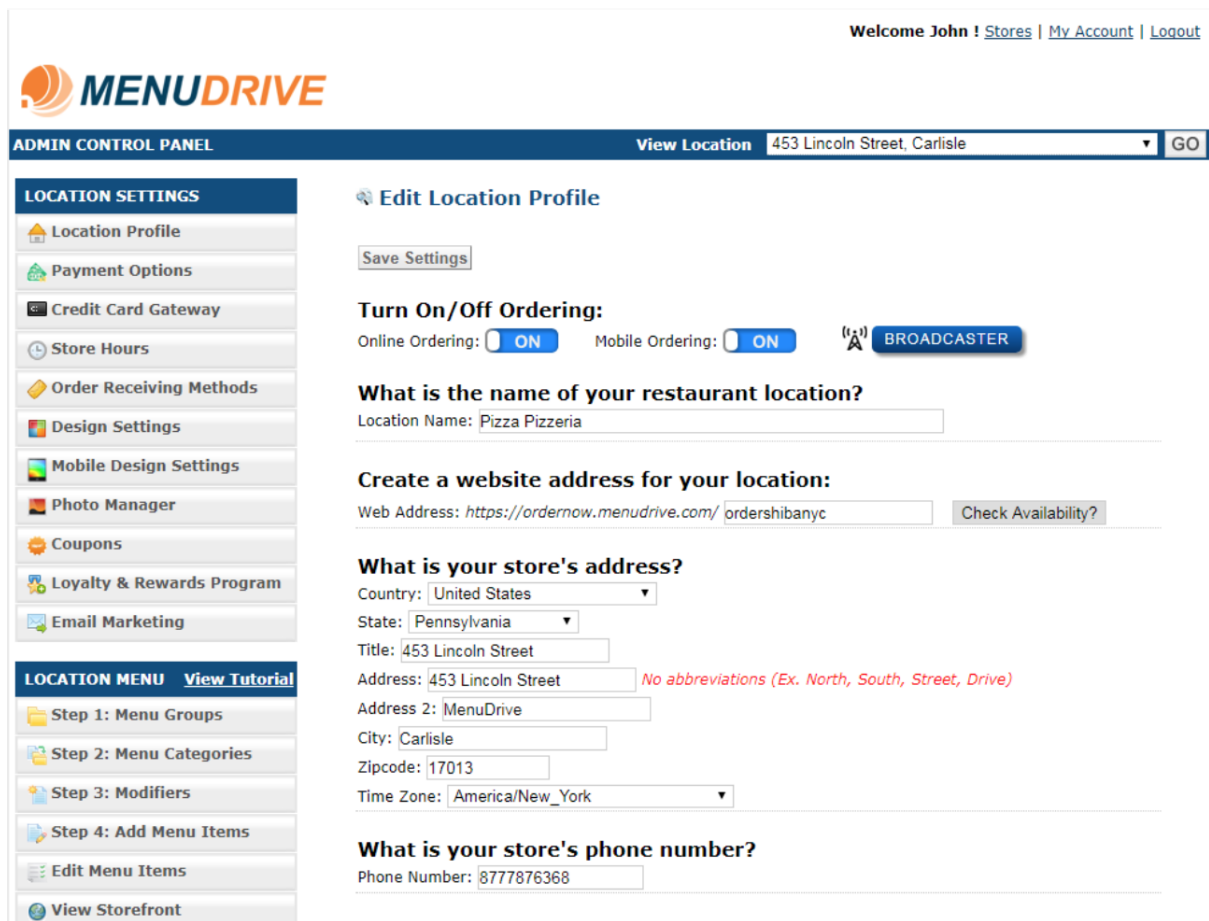


Figure 2.2 Homepage Dashboard

User can view home page with a few of navigation. For ordering, user can fill the required information that ease owner to prepare the order.

2.2.2 UsahaOne

Usahaone is a complete POS System with Accounting Software. It also has manufacturing features for businesses that produce their own products. With this the business owner can calculate the cost of manufacturing and production. Owner can also control the raw material or manufacturing stock. This feature is suitable for businesses such as eateries, cafes, product factories, and other types of manufacturing businesses. There are several further steps such as cost calculation, waste calculation, and allocation of lot number and expiration date for the product released. UsahaOne is ideal for businesses that run businesses such as restaurants and cafes. This POS System has the following features like product management and reports. For instance, product management can manage the stock, categories, unit, discount, taxes and labels. Meanwhile for report feature, UsahaOne can provide report as sophisticated reports with

filter and chart, purchase and sales reports, stock report and many more. POS System UsahaOne also have additional features for example take order by table which is means owner can specify their customer order according to the customer's desk number sitting. This web-based system is easy to use regardless it is user friendly. The programming language used in this system is Java, C#, and SQL language that allows the applications to be created.

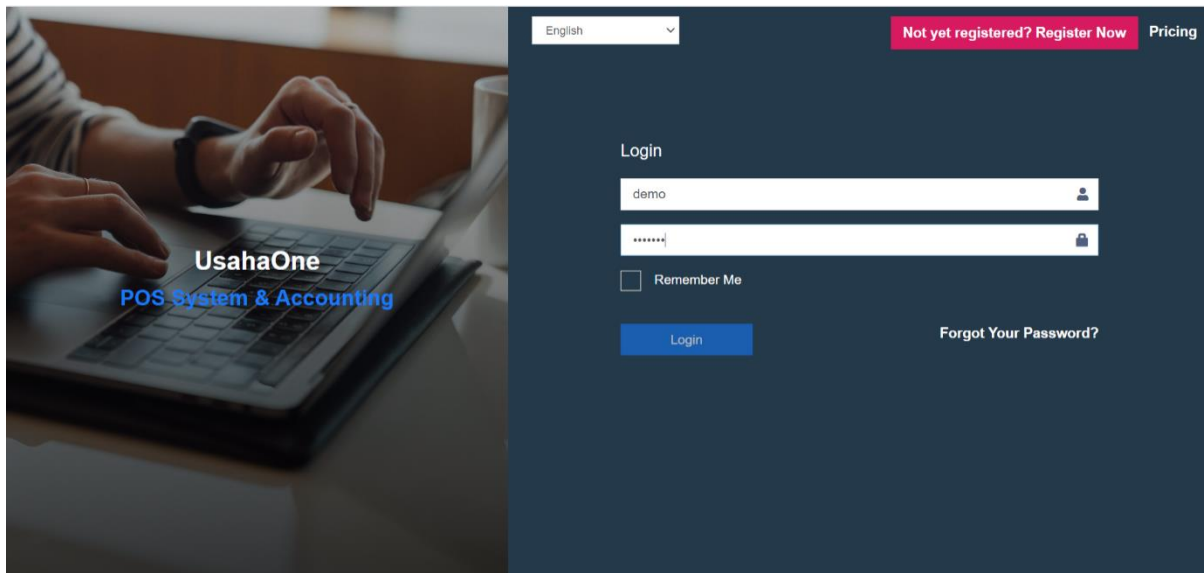


Figure 2.3 Log in Screen

The admin will need to enter the email and password before logging into the application. Only the admin of the company will need to log in before using the application.

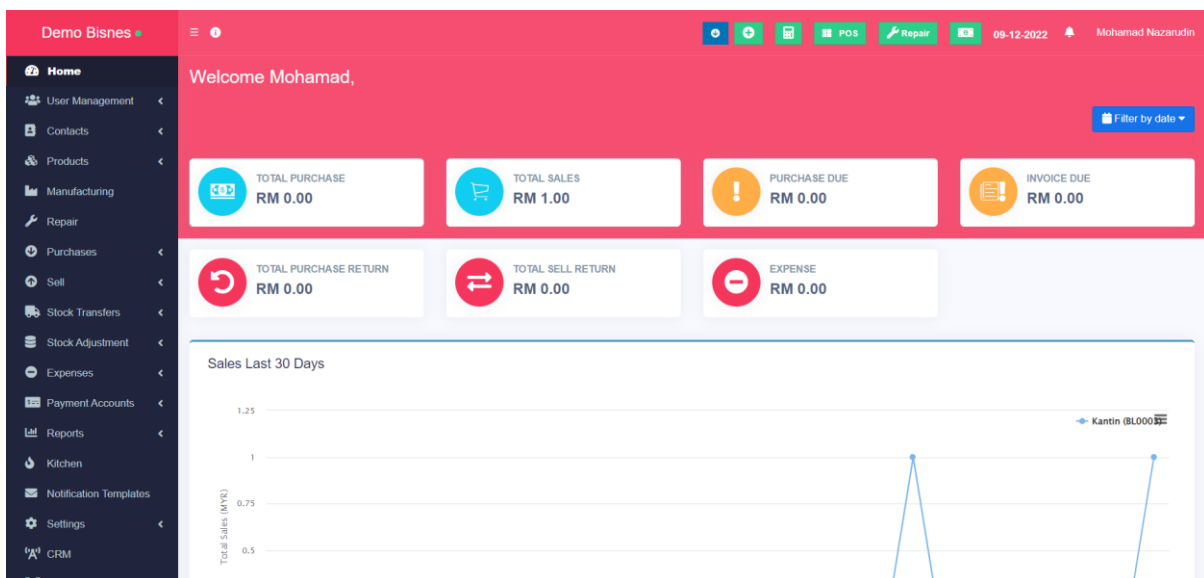


Figure 2.4 Homepage Dashboard

The dashboard provide all the features to be experienced by user throughout the system. Administrator can view sales report, take order, add product and many other menu in this system.

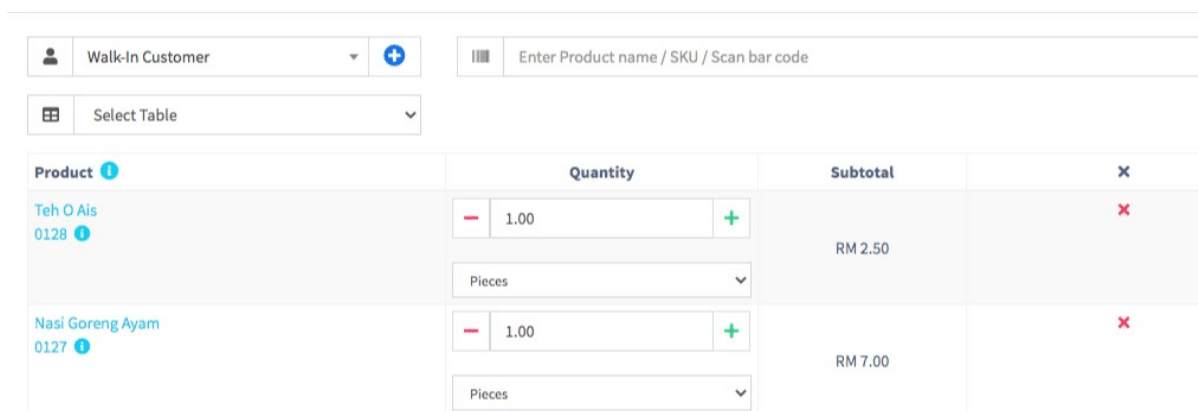


Figure 2.5 Order by Table Page

The owner can take order by table to ease ordering system. They also can get amount after submit the order.

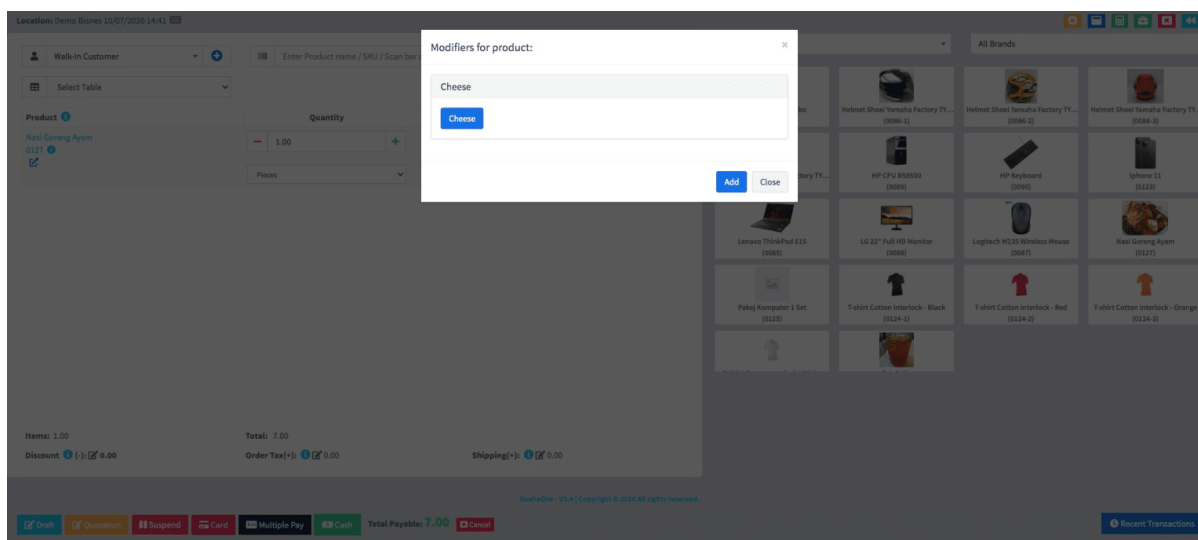


Figure 2.6 Extra Charges Page

Admin can charge extra for each of the meals such as for example selling burgers for extra cheese that charge an additional RM1.

Action	Date	Invoice No.	Customer name	Contact Number	Location	Payment status	Payment Method	Total amount	Total paid	Sell Due	Sell Return Due	Shipping Status	Total Items	Types of service	Custom Field 1	Added By	Sell note	Staff note	Shij Dets
Actions	09-12-2022 01:41 PM	0667	Walk-in Customer		Kantin	Paid	Cash	RM 1.00	RM 1.00	RM 0.00			1.00			Naz Mohamad Nazarudin			
Actions	01-12-2022 03:15 PM	0666	Walk-in Customer		Kantin	Paid	Cash	RM 1.00	RM 1.00	RM 0.00			1.00			Naz Mohamad Nazarudin			
Total:								Paid - 2	Cash - 2	RM 2.00	RM 2.00	RM 0.00	RM 0.00						

Figure 2.7 Sales Report Page

Admin also can view their sales record and total sales by filter in this system.

2.2.3 Oracle GloriaFood

Oracle GloriaFood is an online ordering and food delivery platform that helps restaurant owners manage orders and streamline point-of-sale operations. It comes with an administration panel, which enables professionals to select multiple locations for deliveries, define minimum order amount and set zone-based delivery fees. It takes online orders for pickup, delivery, and tableside service from a simple, elegant mobile app. Update menus and pricing, and automate orders to the kitchen in Symphony Essentials POS. It's all made easy with our all-in-one online ordering and restaurant management platform. The exciting integration of Oracle GloriaFood and Symphony Essentials POS provides a small business POS system with a complete digital restaurant management platform to increase online order sales, eliminate the need for restaurant staff to manually key orders into Symphony point of sale, and automate order data flow to the kitchen. The features that Oracle GloriaFood provide was user can create their own menu in the website and also accept orders and notify the customers of delivery or pickup times at the touch of a button. Besides, this web system offer scheduled pickup, delivery, table reservations and more like give owner curb side pickup and delivery customers flexible ordering options during checkout.