BORANG PENGESAHAN STATUS TESIS*

JUDUL: **RESTAURANT FOOD ORDERING SYSTEM(REFORDS)**

SESI PENGAJIAN: **2009/2010**

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DEDICATION

To my beloved parents, Mr.Balakrishnan A/L Ratnam and Saroja A/P Subramaniam and my family

To my kind supervisor, Ms.Nuridawati Bt.Mustafa

To my lecturers and friends

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ABSTRACT

This project that had developed was given name as Restaurant Food Ordering System where short form is REFORDS. The main function is to get orders from customer and send to kitchen department so more easy to manage customers in their restaurants.Generally this system perform tasks such as add,delete,search,update,data manipulation and more. In the development planning chapter, points and details about project requirements, system development phase has been discussed very well.System analysis chapter divided into two parts which was analysis of current system and analysis of new system.In the designing chapter, information about interface function, interface of database and interface of system has been discussed in detail. As the final chapter which is implementation chapter, informations about implementation status and interface testing result has been discussed. Main objective of this system to help waiters to serve customers fast and using technology device to get the order as well.

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ABSTRAK

Projek Sarjana Muda yang dibangunkan ini diberi tajuk," *Restaurant Food Ordering System"* dan singkatannya adalah (REFORDS) di mana fungsi utama sistem ini memudahkan tugas pihak yang mengendalikan restoran untuk menguruskan pelanggan-pelanggan memesan makanan dengan sistematik dan memudahkan pelayan restoran mengambil pesanan dengan mudah dan cepat. Sistem ini secara umumnya mengandungi modul-modul seperti penyenaraian,pencarian,pemadaman,pengemaskinian pengumpulan dan memanipulasikan data input dan sebagainya.Sistem ini dibangunkan dengan teratur kerana mengikut perancangan yang diberikan dan juga mengikut prototaip yang betul. Dalam bab perancangan pembangunan menerangkan tentang keperluan projek asas tinggi, pendekatan pembangunan sistem dan perancangan projek. Dalam bab analisa pula terbahagi kepada dua iaitu analisa sistem sedia ada dan analisa sistem baru. Bab yang paling penting dalam membangunkan sesuatu sistem ialah rekabentuk sistem. Dalam bab rekabentuk sistem ini penerangan tentang spesifikasi fungsi rekabentuk, rekabentuk antaramuka dan rekabentuk pangkalan data diperbincangkan. Akhir sekali ialah implementasi sistem menerangkan tentang status implementasi, pengujian rekabentuk dan pengujian keputusan. Matlamat dan objektif utama sistem ini adalah untuk membantu pihak restoran melayan pelanggan-pelanggan mereka dengan cepat dan gunakan cara teknologi kerana ia merupakan peluang untuk memajukan lagi kualiti restoran-restoran di Malaysia. Selain itu tugas pentadbir (admin) juga dipermudahkan dan pengurusan makanan-makanan baru di restoran dan cetak bil dengan cepat.

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LIST OF ABBREVIATIONS

DBMS	Database Management System
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
PSM	Projek Sarjana Muda
OS	Operating System
LAN	Local Area Network
PK	Primary Key
FK	Foreign Key
SQL	Structured Query Language
DDL	Data Definition Language
DML	Data Manipulation Language

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CHAPTER 1

INTRODUCTION

1.1 Project Background

As mobile technology becomes more common, it is increasingly being used worldwide for many purposes. It is exactly what the name implies which is a technology that is portable. Examples of mobile IT devices personal digital assistants (PDA), which are used to organize a person's life by taking notes, holding contacts, and connecting to the Internet. Newer PDAs commonly have color screens and audio capabilities, enabling them to be used as mobile phones (smart phones) and employ touch screen technology. Therefore, I would like to develop Restaurant Food Ordering System (REFORDS), a system based of mobile technology for food management industries, where waiter uses PDA to take order from customer as well. As a deep analysis have been done to the currently use system which is manually ordering food. There are have many disadvantages in the current system for example, waiter have to repeat the order taken many times to kitchen department then have to re-enter same order to bill counter and so on. This will causes a simple process taking too long time to settle. Customer may familiar with this common problem wherever ordering food in restaurant or other shops. But, in REFORDS this situation can be controlled because all waiter need to do click button and no need write on order pad. Once the food that ordered confirmed, the order straight away sent to drink department and food department and then the bill will be print by admin. There is no problem if want to add more food

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that desired or cancelling it. All the order will be saved in MySQL database which is centralized in server where admin can access an updated order database.

1.2 Problem Statement

There are few problems or can be said weakness identified in the current manual food ordering system in restaurants. The problem that identified listed as follows:

a) **Take long time to serve customer one by one.**

As the waiters busily take order from customer, (s) he has to write down menus ordered and sent to kitchen department. Before that, they might take other orders from other customer too, so they process the order send to kitchen department slow. They might spend time around 10-20 minutes to complete the order session only. The total time taken from order food till billing process may be around an hour.

b) **If manually write down, have to write and cancel many times the food menu that ordered when takes order from customer.**

Once order has taken, the customer might change the food as well. So, waiter have to cancel the order taken or write again new order in order pad. Some restaurant uses checkbox menu list and just need to tick food need but if any changes may confuse the total food order. There is no any confirmation proceed to next stage.

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c) **Customers get their order in long period time because waiter has to go to kitchen department to give the order detail.**

As mention in (a) after food order taken, waiter have to go kitchen department go give order detail completely like to which table have to sent, what food ordered. The problem not only one customer have order food but might many tables. Waiter can't even remember if any changes in the order.

d) **Customers have to wait to change food or any other need such as extra spoon or plate until the waiter appear.**

Sometime unexpected problem will occur like food taste not good, over salty, wrong food menu served or any other unfavorable things happen. Customer will feel uneasy if every time have to look for waiter appear.

e) **Have to re-enter again order detail to print bill at bill counter.**

Regarding to the billing section, waiter have to re-enter again because when they took orders from customer is manually, write down the order on order pad. Waiters have to refer again order, here the work become twice.

f) **Sometimes, customers have reorder the item that they order which is missed out when give order to kitchen department.**

Missing out food that ordered is common thing which most of the time happens. This is because kitchen department might not take note of menu that sent to order table as well. They only concern on cooking or prepare the food as well.

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1.3 Objective

The main objectives of our REFORDS to solve the weakness of the current system as follows:

a) To order food fast and efficient in restaurants

REFORDS will make customers feel satisfy on its service, where just to click on menu that desired. The orders taken straight away go to kitchen department and save time of waiter to serve one by one table get order and sent to kitchen department. Once orders sent to kitchen department cooking or preparation food within 10-15 minutes will be served with bill.

b) To provide experience in mobile technology by using PDA besides than web base system

Even though, mobile technology very popular among people but too much using hand phones. Normally people very common with ordering food manually or online based like Pizza Hut. But this might be a different technology to order food as well in restaurants. Touch screen pc are used too in restaurant but only for print total bill.

c) To kitchen receives orders faster enabling greater table turn and revenue to customer

As mention in (a), REFORDS really works to solve this problem because orders that taken by waiters will be displayed on kitchen department server right after order confirmation. Waiters can proceed to take other customer's order and no need to collect all together orders and then send to kitchen.

d) To save cost so no more costly Touch-Screen monitors to buy

PDA cost just RM 988 and touch screen monitor RM1150.00.Using PDA cheaper and portable to carry anywhere.

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e) To enter orders at PDA straight away, no forgetting modifiers/condiments

Make ordering process easier by just enter order via PDA, so no more manually write down or miss out in orders. Moreover, no need to re-enter the foods into pc to print bill. All the processes just continue after ordering process.

1.4 Scope

i) Users

This is system is created generally for all and no exception to use it. This system most suitable for restaurant environment which may quite huge and for those having problem to deal more customers while taking orders.

ii) Modules

REFORDS developed by integrated of four modules which are as following:

a) Food Ordering

In this part, add, cancel, update by changing foods that ordered and search for food menu list. After confirmation of ordering have done. The information immediately will be sent to kitchen department server for future process.

b) Administration

Admin will handles billing part, where foods and drinks that ordered confirmed to continue, the kitchen department will send the details of order to admin page to view the status and easier to print total bill. Admin also will

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add, delete, update and search for new food item that will be introduced in that restaurant.

c) Auto adding new order to Kitchen Department

Once waiter takes an order where confirmed and saved into database, an alert will be displayed on kitchen department page as a new order is sent. So, there is no problem in kitchen department to prepare the orders besides forget or not aware of the order as current system.

d) Order Status

In this part, kitchen department will show the status of customer orders, where the food is ready or still in cooking process. If any addition or cancelation will be send to admin to calculate the total bill amount. The status will update after the order is ready.

1.5 Project Significance

One of the main purposes to develop REFORDS is to provide an effective and faster food ordering system in restaurants. REFORDS is designed to ensure the needs for food ordering are perfect and safe to save into database. REFORDS is also convenient to use as it is best system for food management industries to handle food department and also helps to keep good service for customers as well.

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1.6 Expected Output

The project is mobile technology application where consist of four modules. First, customer orders the foods and drinks, waiter will key in the desired food order with PDA. After ordering confirmation, the orders straight away sent to kitchen department server .There will be an alert for receiving new orders and the kitchen department will prepare and send order status whether the food is ready or still in progress. Then, a notification will be sent to admin to give detail of orders that done for bill printing.

1.7 Conclusion

In conclusion, the customers will be able to know and satisfy with REFORDS because of its fast service. This system will provide a whole new perspective on PDA as ordering device and wirelessly connected method. I hope the system will help the food management industries to handle the current situation and problems. Moreover, it is easier and efficient system to apply in current environment as well.

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CHAPTER II

LITERATURE REVIEW AND PROJECT METODOLOGY

2.1 Introduction

Literature Review is the phase where all the processes happen such as searching, collecting, and analyzing that have been published by researches. All the processes can be completed through relevant sources such as books, journal, technical report, proceeding conferences, anonymous references, web pages and others where it is acknowledged true evidence for research something. The purpose of this literature review is to convey readers what knowledge and ideas have been established on a topic or a discussion and what are their strength, weakness, opportunity and threats (SWOT).In this chapter, a review on PDA application development for restaurant environments and also discussion of the connectivity among the network.

Project methodology is the description of the selected approach that will be used when implementing this project. Every step in the selected methodology will be justified to suit every phase of the development of this project. The development of the project might run out of track and failed to achieve the project objectives and scopes without an appropriate methodology and approaches. A brief explanation will be covered on hardware and software requirement, techniques used to develop system and existing system.

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