FOOD ORDER SYSTEM FOR NASI KUKUS MYMAMA BY USING MOBILE APPLICATION

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I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Khidmat pesanan makanan adalah perkhidmatan deliveri yang biasanya disediakan di restoran, kedai dan juga syarikat deliveri kepada pelanggan. Pesanan selalunya dibuat melalui laman web, telefon ataupun melalui syarikat khusus yang menyediakan khidmat pesanan makanan. Dokumen ini akan menceritakan secara terperinci tentang pembangunan Sistem Pesanan Makanan untuk Restoran Nasi Kukus MyMama. Projek ini dibangunkan untuk pengguna perkakas android yang menyokong applikasi fromat apk. Projek ini dibangunkan menggunakan pengaturcaraan java. Projek ini juga mensasarkan pelanggan yang tinggal berdekatan Restoran Nasi Kukus MyMama yang berlokasi di Kuantan dan juga Gambang. Projek ini dibangunkan dengan menggunakan methodologi “Rapid Application Development (RAD)”. RAD memfokuskan lebih kearah mengumpul keperluan pelanggan, ujian awal terhadap prototaip daripada pelanggan, penggunaan semula prototaip sedia ada dan integrasi secara berterusan.

ABSTRACT

Food delivery is a courier service in which a restaurant, store, or independent food delivery company delivers food to a customer. An order is typically made either through a restaurant or grocer's website or phone, or through a food ordering company. This document will explain in detail about the development of Food Order System for Nasi Kukus MyMama. This project was developed for android-based devices that support android application package file format. The development of this project is carried out by using java programming. This project target customers that live near Nasi Kukus MyMama Restaurants located in Kuantan and Gambang area. This project was developed under Rapid Application Development (RAD) methodology. RAD focuses on collecting customer requirements, early testing of the prototypes by the customer using iterative concept, reuse of the existing prototypes (components), continuous integration and rapid delivery.

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LIST OF ABBREVIATION

RAD	Rapid Application Development
OS	Operating system
SDLC	System Development Life Cycle
DFD	Data Flow Diagram
UAT	User Acceptance Testing

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

Food Order System for Nasi Kukus MyMama is a food delivery services by using mobile application. Customer can order food from Nasi Kukus MyMama by using their mobile devices before the order will be send to the server and managed by the staff. Then staff will manage delivery process to deliver food to the customer.

The purpose of this system is to provide the most convenience experience to the customer who want to order food from the restaurant. Besides this system also can make the food ordering more organized and easier to be managed by the staff. Besides, the system proposed also can overcome the inconvenience from the existence hotline delivery system of Nasi Kukus MyMama.

The proposed system provides two type of application. The first one is for client and second is for server. Both applications are developed by using android application which means that user need to use mobile devices such as smartphone or tab that run on android operating system. Admin and staff are sharing same application on the server side. Each of these users have their own use case and functions.

This system also has notification function that able to send notification to server or client. For example, if customer have placed their order then the staff will update the order status and send a notification to the client to inform the order status such as processing order, out for delivery or delivered. All order data, menu data, customer, staff and admin will be stored and keep in the database.

1.2. PROBLEM STATEMENT

Existence hotline delivery services of Nasi Kukus MyMama have a lot of drawback. One of them is customer must remember menu that they want to order. They also do not have an option to visualize the menu in order to decide which menu they want to order. Besides, call operator cannot take call from different customers at the same time. This means that customers need to wait if the call operator is busy taking order from other customer. Another disadvantage is staff that manage the order have a probability to take wrong order since they are human, and human tend to make mistakes.

1.3. OBJECTIVE

The objectives of this system are:

- To develop a food order system for customer to order by mobile application.
- To design a system that can manage delivery process to be conduct easily.
- To test the functionality of the purpose system.

1.4. SCOPE

a. User and function:

- **Client:**
  i. User can use the mobile application to order food

- **Staff:**
  i. Manage orders from client
  ii. Deliver order to client

- **Admin:**
  i. Manage menu details

    ii. Register staff account

b. Software:

- Android OS

c. Hardware:

- Mobile devices

d. Data storage:

- Firebase database

1.5. THESIS ORGANIZATION

This thesis consists of five chapters which are:

CHAPTER 1 - INTRODUCTION

Introducing the readers to the general information of the project, problem statement, the objective of the project and the scope of the project.

CHAPTER 2 - LITERATURE REVIEW

In this chapter, it consists of a study about this project in general. It explains the existing problems that appeared or solution solve by others. This chapter explains in detail techniques/method/hardware or technologies used in this project.

CHAPTER 3 - METHODOLOGY

This chapter mainly discusses about the progress of the project. This is shown using a Gantt chart. In this chapter also including the process of collecting data, drawing the system, process and analyze the data to obtain the final result.

CHAPTER 4 – RESULT AND DISCUSSION

REFERENCES

Baresi, L., & Pezz`e, M. (2006). An Introduction to Software Testing. *Electronic Notes in Theoretical Computer Science 148(1): 89-111 · February 2006*.

Dhanotia, S., & Goyal, R. (2012). Rapid Application Development Rad Approach with Halt Points. *International Journal of Engineering Sciences & Research Technology*.

Eflyn Interactive Digital Display Solutions. (2018). *SELF-ORDERING KIOSKS FOR RESTAURANTS AND RETAILERS*. Retrieved from http://www.eflyn.com/self-ordering-and-self-service-kiosks

G2 Crowd Inc. (2018). *Compare Android Studio, Intel XDK, and Cordova*. Retrieved from https://www.g2crowd.com/compare/android-studio-vs-intel-xdk-vs-apache-cordova

Grubhub Inc. (2017). *About Us*. Retrieved from https://about.grubhub.com/about-us/what-is-grubhub/default.aspx

Khan, M. E. (2011). Different Approaches To Black box Testing Technique For Finding Errors. *International Journal of Software Engineering & Applications (IJSEA), Vol.2, No.4, October 2011*.

Lawanna, A. (2012). The Theory of Software Testing. *AU J.T. 16(1): 35-40 (Jul. 2012)*.

Nidhra, S., & Dondet, J. (2012). Black Box and White Box Testing Techniques - A Literature Review. *International Journal of Embedded Systems and Applications (IJESA) Vol.2, No.2, June 2012* .

Powell-Morse, A. (2016, November 23). *Rapid Application Development (RAD): What Is It And How Do You Use It?* Retrieved from https://airbrake.io/blog/sdlc/rapid-application-development

Primozic, U. (2015, January 22). *Introducing the latest and best in restaurant ordering systems: Say hello to Geoffrey S, the perfect waiter's assistant*. Retrieved from https://www.visionect.com/blog/introducing-the-latest-and-best-in-restaurant-ordering-systems-say-hello-to-geoffrey-s-the-perfect-waiters-assistant/

Tarhini, A. (2011, January 22). *Concepts of Three-Tier Architecture*. Retrieved from https://alitarhini.wordpress.com/2011/01/22/concepts-of-three-tier-architecture/

Wikimedia Foundation Inc. (2018). *Rapid application development*. Retrieved from https://en.wikipedia.org/wiki/Rapid_application_development