



Faculty of Computer Science and Information Technology

## **LAYERED CAKE BOOKING SYSTEM**

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**Bachelor of Computer Science with Honours**  
(Information System)

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This project is submitted in partial fulfillment of the  
requirements for the degree of  
Bachelor of Computer Science with Honors (Information System)

Faculty of Computer Science and Information Technology

UNIVERSITI MALAYSIA SARAWAK

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## **ABSTRACT**

Kek Lapis Sarawak is a well famous cake product at Sarawak and yet none of any mobile application available for the cake booking system. As mobile devices are widely used today, this is the huge opportunity to set the business through application. The purpose of this project is to develop an android based mobile booking application. To go to some specific shop to just make a booking is time consuming, therefore using an application will case the booking process and save time. Besides that, this application also serves as an alternative marketing tool.

## **ABSTRAK**

Kek Lapis Sarawak merupakan produk kek terkenal di Sarawak tetapi tiada apa-apa aplikasi mudah alih boleh didapati untuk sistem tempahan kek. Kerana peranti mudah alih yang digunakan secara meluas hari ini, ini adalah peluang yang besar untuk menetapkan perniagaan melalui aplikasi. Tujuan projek ini adalah untuk membangunkan sebuah aplikasi berasaskan tempahan telefon mudah alih android. Untuk pergi ke beberapa kedai khusus untuk hanya membuat tempahan adalah memakan masa, oleh itu menggunakan aplikasi akan memudahkan proses tempahan dan menjimatkan masa. Selain itu, aplikasi ini juga berfungsi sebagai alat pemasaran alternatif.



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## **Chapter 1 INTRODUCTION**

### **1.0 Introduction to mobile e-commerce**

Nowadays, having a mobile device is common and these devices are capable of doing a lot of things. Now Scan-to-Buy Mobile e-Commerce provide a platform for people to purchase items incredibly fast and easy if equipped with mobile camera and internet connection. This is the ultimate Mobile e-commerce solution for businesses. Customers can now purchase goods or services with ease without the need to use desktop computer, making a voice call, or going to the store.

#### **1.1 Problem statement**

At Sarawak, Cake Lapis is a layered cake and quite famous among all the Sarawak's traditional food. Therefore, a mobile based booking system can ease the booking and purchasing process. In addition, such application will save the customer's time, especially for repeating customers.

Due to the hot selling of Cake Lapis, this mobile based booking system would be a good solution for all kind of customer.

## **1.2 Project objectives**

The main objective of the project is to develop an e-shopping android application for Sarawak layered cakes that fulfill the following requirements:-

- Design an interactive online booking application using Android-based platform for Layered Cake booking
- Faster and accurate information retrieval for booking process.
- Provide payment method for the application

## **1.3 Project scope**

This project will be used by mobile users who have internet access. The scope of our project is that the customer can do the booking themselves. The use of internet makes it possible to provide good service at lower cost, but the speed and efficiency can't be compromised if the number of users increases.

The system of my project will support the basic operations like:

- Booking Layered Cake
- Able to sign up and login to the application
- Confirming booking through email
- Maintaining booking records of customers
- Payment through PayPal or credit card

## 1.4 Project Limitation

In spite of the fact that we are trying to develop an efficient booking system for Layered Cake, we has pointed out the following possible limitations of this project:

- I. Do not involve real purchasing transaction. The system also won't be able to provide some complex function like payment through credit card.
- II. The application only focuses on one specific cake shop and 10 types of layered cake. Since the project is prototype so it won't include all the Cake shop or products and make the problem lack of choices appear.

## 1.5 Methodologies

Rational Unified Process methodology will be applied for different phases of this research throughout the project life cycle. Each phase has different activities.

### 1. Planning

To identify all the information and requirement such as hardware and software, planning must be done in the proper manner. The planning phase has two main elements namely data collection and requirements of hardware and software.

- Data collection
  - Which user features, function will be developed for which segment?

- Which service will be integrated to the application?
- What are the usability scenarios for the application? (During walking, in the car, busy environment, working environment, etc.)
- Hardware and Software Requirement
  - Decide application distribution method
  - Which platforms will be supported?
  - Decide device which specific features are going to be used
  - Decide which resolutions are going to be supported

## 2. Prototyping

Prototype would generate based on the information that has been analyzed by analysis methodology.

- Design the system
  - What will be the Name for the application? (Name of the application, image, etc.)
  - What are the visual and audio media that will be used in the application?
  - What type of mobile will be used for this application?
  - Design of the objects under the criteria of Touch screen
    - keyboard usage
  - Multi Resolution Support
- Test the system



- What will be the Test Cases (Writing test cases should start at the beginning of the development and will evolving in each step?)
- Does the application fulfill the established performance requirements?
- Which problems have occurred during test?
- Which problems can occur during application delivery?

### 3. Evaluation and Analysis

- Analyze the performance of the system
- Evaluate the system
- Identify the conclusion

### 4. Documentation

- Defines what the system can and can't do
- Provide full detail explanation about the system( like Terms and Conditions)
- Provide a simple user manual for use of the application
- Provide regular updates for the application
- Provide maintenance and support

### **1.6 Significant of the project**

The significant of this project is to be able to provide an alternative booking and purchasing of Sarawak Layered Cakes. By building a mobile online booking system for a Layered Cake shop, it helps the shop to put their business on the mobile and promote their products. Since to the shop doesn't provide any postage service, customer need to go to the shop and collect the cake. Besides that, it saves a lot of time because all the things can be done with only few clicks on the buttons. Based on the research conducted, nowadays mobile user can't leave their phone alone for six minutes and check it up to 150 times a day. Therefore, introducing a new platform for business using mobile-based application is a wise choice and in-line with technological changes.

### **1.7 Expected outcome of the project**

The Expected outcome of the project is a mobile based application that enables user to make a booking for the goods they want from the Mira Layered Cake shop.

## **1.8 Thesis outline**

A brief introduction on layered cake booking system, project scope, objectives and problem statements were discussed in Chapter 1. Chapter 2 will focus on literature review. It reviews different layered cake booking systems that are currently in use. Chapter 3 presents the project methodology. Chapter 4 describes the implementation of the Android-based Sarawak Layered Cake Application. Chapter 5 covers the application and user testing. Lastly, we conclude the project in Chapter 6 with the achievements and future works.

## **1.9 Summary**

Throughout the overall project, this chapter has given an overview of the whole project which included introduction, problem statement, objectives, scope of the project, significant of the project, expected outcome and the thesis outline. After this chapter, next chapter will emphasize on the literature review of existing Layered Booking System. Likewise, methodology and the requirements analysis and also the design phase will be briefly explained at chapter 3. As such, this would help reader to get more understanding towards the proposed system working onwards.

## **Chapter 2 LITERATURE REVIEW**

### **2.0 Introduction**

In this chapter, four existing systems that were already developed by others are studied and reviewed. We compare the difference in these systems against to proposed application. So, this literature review shows us the information of the existing systems with its feature and why there is need of the proposed application. In this chapter, we cover these existing Layered Cake businesses: **Dayang Salhah Kek Lapis**, **Afifi Sarawak Hand Made Layer Cakes**, **KekLapis.KakSue.com** and **Mira Cake House**.

#### **2.1. Dayang Salhah Kek Lapis**

Kek Lapis Dayang Salhah first begins its operation in year 1997 from a small family business. Today it evolves as the most famous and established manufacturer of Kek Lapis Sarawak. The ingredients of success for this growing family business lie in its great recipes of tastes and its varieties of the layer cakes. Kek Lapis Dayang Salhah offers various types of layer cakes for all festive seasons. The booking system is done through facebook page and BlogSpot.

This Cake shop booking system has provided customer two ways to make an order. For the first method, Consumer can make any order by bank-in orders; email the cake titles and quantity to the [keklapisdygsalhah@gmail.com](mailto:keklapisdygsalhah@gmail.com). They wait for a reply which includes the total amount to be paid plus delivery cost.

After that, customers have to bank in to provide bank account. After confirmation, the ordered cakes will be sent to the customer within one working day.

The second method is for express payment (Debit Card/Credit Card/PayPal) which consists of five steps. Firstly, customer has to choose the cakes and add to cart. After that, they have to enter particulars and make payment. Then, the cakes will arrive next day.



Figure 2.1 Payment methods of Dayang Salhah Kek Lapis

There are 3 categories of Kek Lapis which is LAYER CAKES, DOUBLE CAKES and SWISS ROLL. Inside each category there are many different and delicious cakes.



*Figure 2.2 Categories of Cake*

### **2.1.1 Application features**

The features of this booking system will improve accessibility of user interface and user friendliness.

Figure 2.3 shows the product catalogue and pricelist. With this feature, customer can know how the cake looks like.



Figure 2.3 Product catalogue and pricelist

Figure 2.4 provide the details of products. It can let customer make sure what they are ordering. Besides that, customer also can to choose the size of cakes.

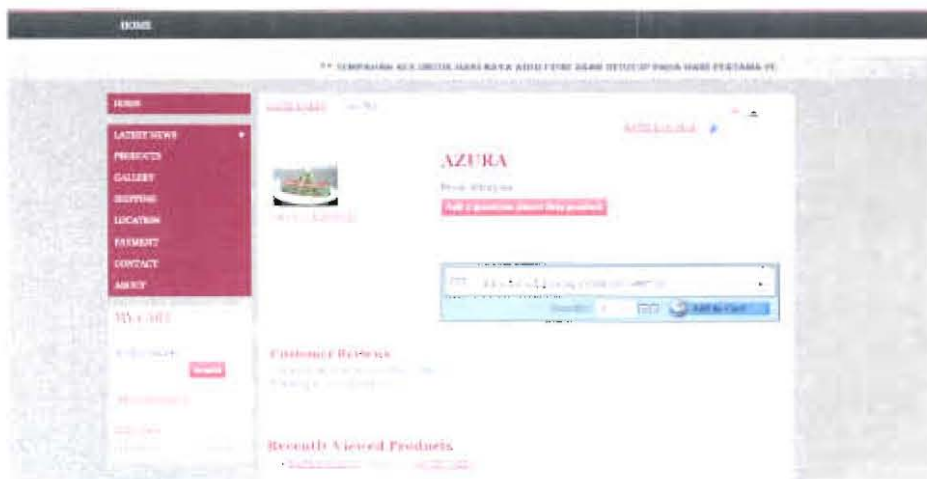


Figure 2.4 Details of the Cake

Shipping detail is provided in their website which will clearly describe the shipping policy and cost.



Figure 2.5 Shipping policy