ONLINE ORDERING SYSTEM FOR COFFEELOCA

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JUDUL: **ONLINE ORDERING SYSTEM FOR COFFEELOCA**

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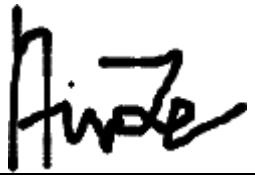

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ONLINE ORDERING SYSTEM FOR COFFEELOCA

AIN ZAHIRAH BINTI ABDUL KARIM

This report is submitted in partial fulfilment of the requirements for the Bachelor of Computer Science (Database Management) with Honours.

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FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI
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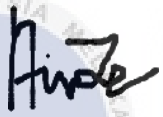
STUDENT :  Date : 7 September 2021

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DEDICATION

To both of my parents, siblings, housemates and batchmates from 2018/2019 Intake

This is for all you

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First and foremost, I would like to thank to Allah SWT for giving me strength and opportunity to live and continue my studies.

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I would like to dedicate this work to my beloved parents, Abdul Karim bin Hassan and Rahani Binti Mohd. Dan, without them I would not be here, and also to my siblings, Anis, Hanif, and Amira for being the reason for me to fight for this journey.

Not to forget my friends, Alya, Azwin, Marni, Azwani, Syazwana and Anith that are always there when I needed help with bringing joy to my years of study here in UTeM. I could not imagine how my life in university would be if I haven't met all of you.

I would like to dedicate this to my batchmates, which will be too long to list here but thank you for all the help and memoirs. I would also like to express my gratitude to all of the lectures that taught me here from session 2018 until session 2021.

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ABSTRACT

Coffeeloca is a local café shop. Currently, they had insufficient information regarding their products in their official website. This project investigates the solution to make the website to be more informed by proposing a minor improvement for the website. The mentioned improvement are graphic menu and an ordering system. In order to develop this project, Database Life Cycle is used as a method for researching and gathering related information on online ordering system. The result of this project is an online ordering system and more graphic menu for customers to browse and placed their order like most online food delivery.

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ABSTRAK

Coffeeloca adalah kedai kafe tempatan. Pada masa ini, mereka tidak mempunyai maklumat yang cukup mengenai produk yang dijual di laman web rasmi mereka. Projek ini menyelidiki jalan penyelesaian untuk menjadikan laman web rasmi tersebut lebih berinformasi dengan mencadangkan sedikit pengubahsuaian untuk laman web tersebut. Cadangan yang disebutkan adalah menu grafik dan sistem pesanan atas talian. Untuk mengembangkan projek ini, Kitan Hidup Pangkalan Data telah digunakan sebagai kaedah untuk meneliti dan mengumpulkan maklumat berkaitan sistem pesanan atas talian. Hasil dari projek ini adalah sistem pesanan dalam talian dan lebih banyak menu grafik untuk pelanggan melayari dan membuat pesanan mereka seperti kebanyakan penghantaran makanan atas talian.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Coffeeloca is a local coffee shop situated in Bandar Saujana Putra, Selangor. Since the cafe opened during COVID-19 happened, dine-in is restricted and the operation hours are shortened due to the Movement Control Order (MCO). They served variety of Asian cuisine, pastas and beverages such as coffees in a cozy environment. They have promoted their cafe mostly on local residential area social media group, gaining new and regular customers every day. Since pandemic happened, they opted for delivery only to avoid the pandemic infection rate get higher.

1.2 Problem Statement(s)

1. Customers are unable to view their menu appropriately in their official website. Since the customers may not be able to search the menu items in a more flexible manner, they may spend more time browsing through the menu before making their orders.

2. Orders for delivery are not properly recorded, causing customers to lose track of their order and their order status.

3. Manager had difficulty on generating computerised sales report that could be displayed graphically on the system. They may need to extract their data by using Comma Separated Value, which could take time instead of displaying on the system.

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1.3 Objective

The objectives for this project are:

- To give the customers a better view of menu. The menu items can be search in a more flexible manner, such as browsing by menu categories on the website.
- To ease customer to keep track of their orders and their delivery details including detailed information regarding their purchase.
- To facilitate the management staff in producing periodic sales reports that can lead to the analysis of sold items.

1.4 Scope

Target Users

Coffeeloca staff administrator

- The administrator is in charge adding menu, view orders, and produce sales report.

Coffeeloca general staff

- The general staff have limitations where they only in charge of updating the menu and handling orders and delivery.

Customers

- Customer is a person who bought the products sold by Coffeeloca. They can browse their menu to order foods and beverages.

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Modules

1) Staff

- This module allows the staff of Coffeeloca to facilitate with orders that are made by the customers, including updating the delivery status.

2) Customer

- Intended for customers, this module let customers to view the menu, make orders and track their order delivery.

3) Delivery

- Coffeloca administrator is in charge of this module, where they update the delivery status for customers.

4) Order

- This module is only for customers where they can purchase the products and receive a receipt of their purchase.

5) Report

- This module is held by the cafe administrator that are intended to make report based on sales.

1.5 Project Significance

The significance of this project is to propose a simple system and website for Coffeeloca. This project centralized all menu and detailed information about what Coffeeloca offers. Customers can browse the menu and purchase them easily without the need to go out. By proposing this project, Coffeeloca can approach and attract wider audience as it is easier to browse.

1.6 Expected Output

The output that are expected from this project is a web-based site where customer can easily purchase products with the same price as in-store price and minimal delivery charge. Customer can get a better view with image of what the food and beverage look like at the menu.

1.7 Conclusion

In nutshell, this chapter introduces what kind of system to be developed. This chapter also explains the background of Coffeloca, a café shop in Bandar Saujana Putra, Selangor, which is where the project is focused on. Before taking the next step on building this project, a few analyses had been discussed in this chapter such as the problem statements, objectives, scope, the significance of the project and the expected output. For the next chapter, I will elaborate on the project methodology and planning.

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CHAPTER 2: PROJECT METHODOLOGY AND PLANNING

2.1 Introduction

Project methodology is a set of methods and processes for developing a project. It usually contains collections of steps and activities for each phase of the project's life cycle. In order for the system to be built effectively, the methodology used is the Database Life Cycle (DBLC). This section will elaborate more on what DBLC is and the phases of DBLC.

2.2 Project Methodology

Database Life Cycle (DBLC) elucidates stages involved for implementing a database from requirements analysis to maintenance. There are 6 phases for DBLC, which are database initial study, database design, implementation, testing and evaluation, operation and maintenance.

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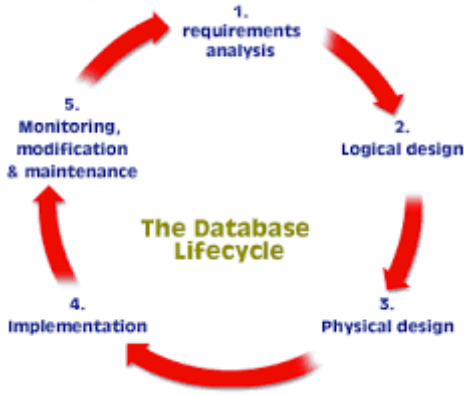

Figure 2.1: Database Life Cycle (Source: https://www.relationaldbdesign.com/)

a) Database Initial Study

The designer must examine the current system's operation within the company and must determine how and why the current system fails. Furthermore, the mission objectives of the project must also be well determined. It is because the objectives will aid in identifying a specific task. The designer should also determine the scope and boundaries when developing the system.

b) Database Design

This phase emphasizes on the design of the database model that will support the company's operations and objectives. The process of designing database is loosely related to the analysis and design of a system. The person who is in charge with this phase is system analyst or system programmers since they design other system components.

c) Implementation

In this phase, DBMS needed to be installed as the output of the database design is a collection of manual detailing on the creation of tables, attributes, domains, indexes, and more. After installing DBMS, a database needed to be created and proceed with loading or convert the data.

d) Testing and Evaluation

Decisions to ensure integrity, security, performance and recoverability were made at the design phase. In implementation phase, these decisions are later applied to the database. In order to see if the mentioned work, we need to do some testing and evaluation. Database Administrator will test to ensure it maintains the integrity and security of the data.

e) Operation

Once the database passed the evaluation phase, it is considered to be operational. Hence, the database, its management, users and application programs are ready to go.

f) Maintenance

The process is not done yet, thus the database administrator must always be ready to perform routine maintenance activities within the database. Some maintenance are backup and recovery, enhancing database performance and more.

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2.3 Project Schedule and Milestones

Table 2.1: Project Milestone

Milestones	Action	Date
Requirement Analysis	a) Gathering information that relate to online food ordering system b) Preparing proposal of the project to supervisor	15th February 2021
System Design	a) Sketching Context Diagram and Data Flow Diagram of the proposed system b) Finishing Entity Relation Diagram (ERD)	8th March – 19th April
Implementation	a) Started building system b) Demonstrate the system to supervisor	2nd June 2021
Testing	a) Testing system functionality, verification and validation	3rd June 2021 – 22nd June 2021
Project Demo	a) Demonstration the system for the last time before final presentation	23rd Jun 2021
PSM Report	a) Final report submitted	1st July 2021
Final Presentation	a) Live Question and Answer (QnA) with evaluator	2nd July 2021

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Task Name	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Requirement Analysis														
Gather information														
Preparing proposal of the project														
2. Database Design														
Sketching Context Diagram and Data Flow Diagram														
Finishing Entity Relationship Diagram														
3. Implementation														
Started building system														
4. Testing and Evaluation														
testing the system														

Figure 2.2: Project's Gantt Chart

2.4 Conclusion

To conclude this section, this chapter discuss the database development methodology for the project which is Database Life Cycle (DBLC). The six phases which are database initial study, database design, implementation, testing and evaluation, operation and maintenance also had been elaborated in this chapter. These phases that are explained is used to implement the Online Ordering System for Coffeeloca and overview of the project schedule and milestones.

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CHAPTER 3: ANALYSIS

3.1 Introduction

This chapter entails the analysis stage, where further explanation of the database development planning had been discussed on the previous chapter. At this stage, most developers evaluate the database development while acknowledging external factors which are cost, timeframe, development platform, programming language used and the expected output. These evaluations are crucial as it helps to determine the efficiency of the system that are going to be developed. Hence, this section will analyze the current system and the to-be system.

3.2 Problem Analysis

The original website used by the café does not present their menu well. Although sufficient information is available, they only display the menu category instead of the food name itself. This allow the gap between the café itself and their non-regular customer as their non-regular customer would not know what product did this café offers. The gap would eventually make the opportunity to grow further will gone if the café did not come with proper solution.

Instead of displaying their variety of menu on their website, they mostly share their picture describing their menu on their social media. Even though it is good to stay updated, it would make a new customer that interested to order their product had a hard time browsing their menu on social media. With the Movement Control Order (MCO) going on, people most likely ask for food delivery rather than going out. Thus, even more customers would lose interest or have no idea what the café sells. The figure below shows the flow of current ordering method before the system build.

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