BACHELOR OF COMPUTER SCIENCE (HONS.)

COLLEGE OF COMPUTING, INFORMATICS, AND MATHEMATICS

UNIVERSITI TEKNOLOGI MARA (UiTM)

PROJECT PROPOSAL

TITLE: KUPICOFFEE ORDERING SYSTEM

Course Code	**: ICT502**
Course Name	**: Database Engineering**
Semester	**: Oct 2024 - Feb 2025**
Lecturer Name	**: Mohd Hanapi Abdul Latif**

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Date of Submission:	**18 November 2024**

Proposal Rubric

ITEM	MARKS	GROUP MEMBERS
Table of Content (2 Marks)		CLASS: MEMBERS:
Company Background (3 Marks) **2 Marks** If the company background is presented		
Problem Statement (10 Marks) **1-5 Marks** If they did not state that the current system is Manual or File-based Approach. **6-10 Marks** If they state that the current system is Manual or File-based Approach with some relevant sub problems because of the manual system.		
Objective (10 Marks) **1-5 Marks** If they state the system objective **6-10 Marks** If they state that they want to design, develop and test as the objective.		
ERD (20 Marks) **Rubric for ERD:** **Entity 4** **Attributes 3** **Relationship 3** **Relationship Name 2** **Cardinality/Modality 2** **Inheritance 2** **Recursive 2** **Bridge 2** **TOTAL 20 Marks**		
3NF Relational Schema (5 Marks) **1-3 Marks** if the entity and attributes are not fully presented **4-5 Marks** if ALL the attributes and entities are presented.		**TOTAL MARKS:** 50

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1. COMPANY BACKGROUND

The rise of demand for high-quality coffee with a fast and convenient service in Malaysia has opened an intention to revolutionize the classic coffee purchase experience with modern pickup and delivery services. These days, food pickup and delivery services have grown into vital sources of income in the local business industry. Numerous restaurants and small cafes depend on these services to connect customers outside their local area. Services customized by Malaysian enterprises such as Grab or FoodPanda offer resources for local restaurants and cafes to handle online orders, deliveries, and loyalty programs, allowing them a greater control over their operations.

KupiCoffee takes pride in fundamental principles of quality, accessibility and customer satisfaction and aspires to provide a platform that operates for 24 hours to connect coffee lovers with access to purchasing their needs of finest brew. Considering our customers' needs and their appreciation of both efficiency and quality, KupiCoffee aims to create a smooth ordering system using a web-based platform that enables customers to swiftly order coffee either for pickup or delivery to customers' doorstep using cash only transaction and grant access for customers to track their order instantly. Throughout the website, KupiCoffee prepares a user-friendly interface that will allow customers to browse the various selection of coffee menus effortlessly.

Through the use of technology and effective database management, KupiCoffee seeks to deliver a top-notch, data-oriented service experience. This not only improves customer satisfaction but also advances our goal of delivering the finest in both speed and specialty to coffee enthusiasts around the world. With its dependable and convenient service, KupiCoffee is set to become a fundamental part of the routines of both busy people and coffee lovers.

2. PROBLEM STATEMENT

Managing pickup and delivery transactions can be challenging for staff without an efficient system, leading to delays, errors, and reduced productivity. Disorganized workflows make it harder to track orders and coordinate deliveries, impacting both staff efficiency and customer satisfaction. A web-based platform is essential to empower staff to handle these tasks more effectively, ensuring a smoother and more reliable service experience.

Integrating order processing with payment and receipt creation is a major problem. An efficient method for handling pickup and delivery transactions while precisely recording crucial customer data, such delivery addresses, payment status, and item details, is absent from many systems, for instance. These flaws may result in order fulfillment issues, payment processing delays, and ineffective receipt generation for finished transactions if there isn't a well-organized framework in place.

Customers often face long wait times and queues when ordering coffee, particularly during peak hours, due to inefficient order management systems. Without a streamlined process to handle transactions quickly, both pickup and delivery orders contribute to delays, causing frustration and dissatisfaction among customers. The lack of a system to optimize order flow and reduce processing time not only impacts the customer experience but also limits the vendor’s ability to serve more customers efficiently. Addressing this issue with a solution that minimizes waiting time and queues is crucial to enhancing customer satisfaction and operational performance.

By offering a complete platform that is suited to the particular requirements of the coffee business, KupiCoffee, the suggested solution, aims to solve these issues. To accommodate client preferences, KupiCoffee will streamline the ordering process, provide smooth pickup and delivery transaction management, and only accept COD payments. The system will also have strong receipt generation capabilities, guaranteeing dependability and transparency in each transaction.

Storing customer information using physical methods, such as handwritten records or printed forms, presents significant challenges for efficiency and accuracy. These methods are prone to errors, damage, and loss, making it difficult to maintain reliable records over time.

Additionally, retrieving and organizing information manually can be time-consuming, leading to delays in processing orders and addressing customer inquiries. This lack of a streamlined and secure system also increases the risk of miscommunication and operational inefficiencies. Transitioning to a digital solution can address these issues, ensuring accurate, accessible, and secure storage of customer information while improving overall workflow.

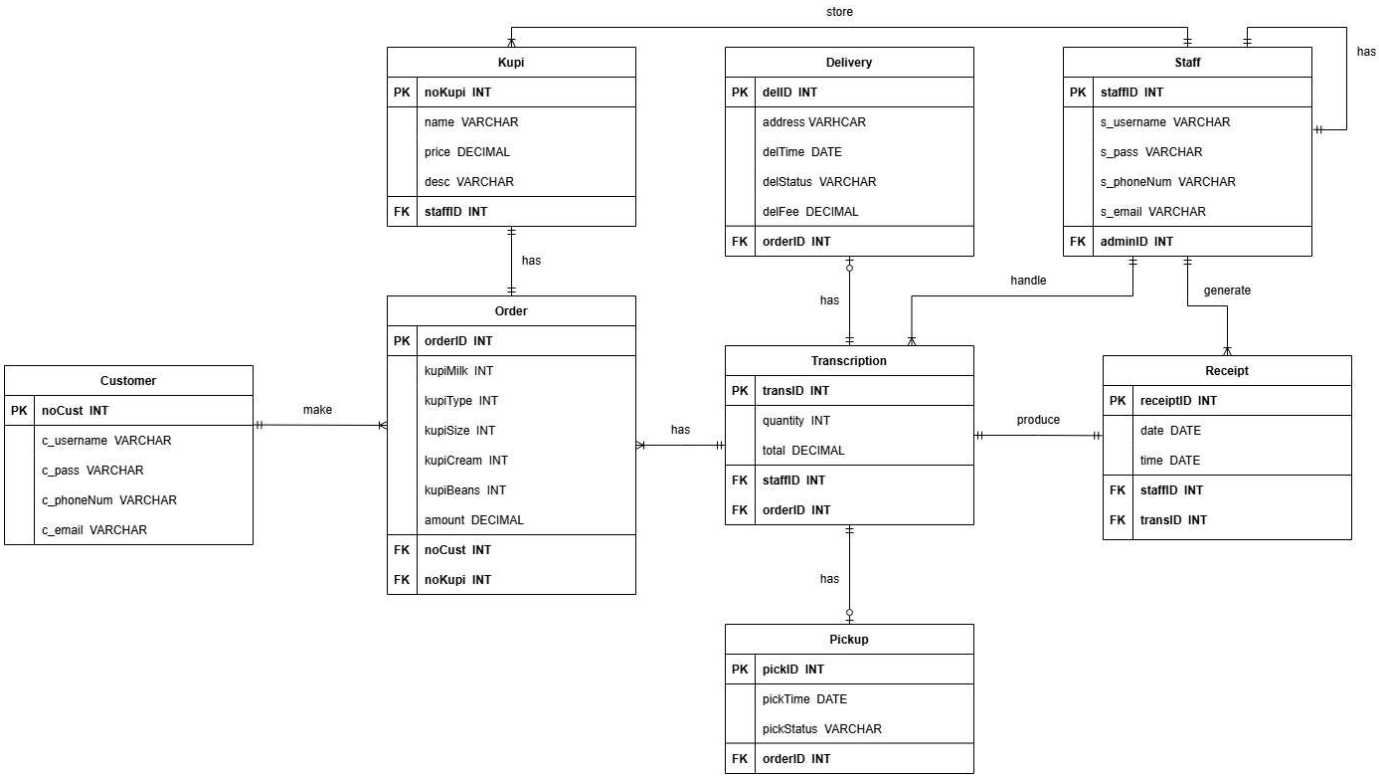
3. SYSTEM OBJECTIVE

KupiCoffee Cafe goal in facilitating an effective pickup and delivery services is carried out through these following objectives:

- To design and implement a user-friendly web-based application for customers' seamless ordering experience.
- To develop a functional and a well-structured Oracle database that efficiently organizes necessary data including customer information, customer orders and order tracking.
- To test execution in database functions in ensuring data accuracy, security and reliability.

4. ERD

KupiCoffee Ordering Sytem's Entity Relationship Diagram (ERD)



5. 3NF RELATIONAL SCHEMA

Customer (noCust , c_username, c_pass, c_phoneNum, c_email)

Kupi (noKupi , name, price, desc, staffID*)

Order (orderID, kupiMilk, kupiType, kupiSize, kupiCream, kupiBeans, amount, noCust* , noKupi*)

Transaction (transID, quantity, total, staffID*, orderID*)

Receipt (receiptID, data, time, staffID*, transID*)

Pickup (pickID, pickTime, pickStatus, orderID*)

Delivery (delID, address, delTime, delStatus, delFee, orderID*)

Staff (staffID , s_username , s_pass, s_phoneNum , s_email, adminID*)