

Meranti Online Ordering System

Proposal

Group 9 Members:

TAGWA BASHIR

LEENA ATAELMANAN

MATHABA HASSAN

AHMED KHALIED



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Introduction

University cafeteria is central to campus life, providing meals and refreshments for students on tight schedules. An efficient cafeteria system can enhance the student experience, making it easier and quicker to access meals throughout the day at campus or even after that in their dormitory .



Problems with Current System

The current manual system requires students to stand in line, ask the staff for the menu, take a ticket, and wait to be called, resulting in overcrowding, queues, lengthy wait times, especially during peak hours.



Problems with Current System

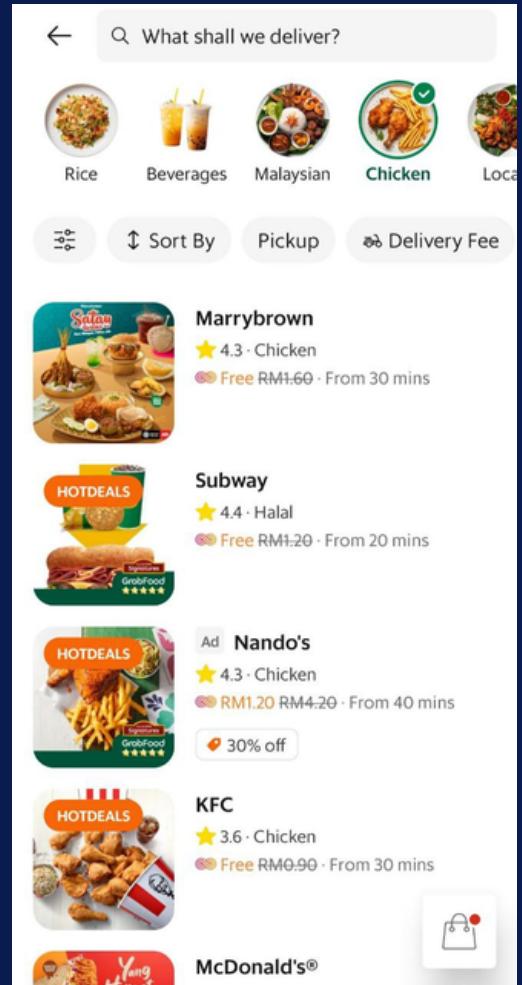
The absence of a delivery option restricts access for students who cannot visit the cafeteria due to time constraints or other commitments. These issues create inefficiencies that impact the overall satisfaction and convenience for students and staff.



Inspiration GrabFood

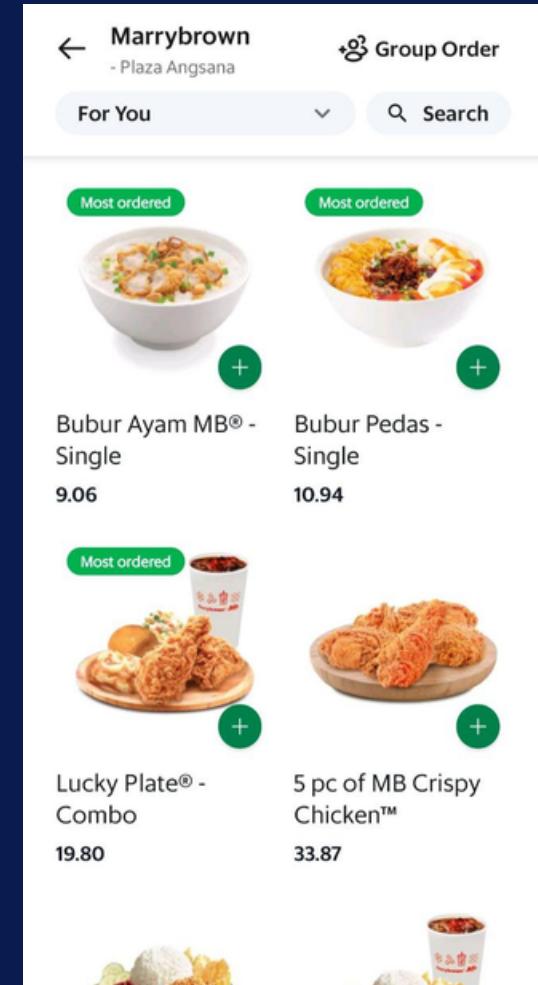
Many restaurant options, which mimics Merant's resturant layout

Options based on meal choice (Chicken, local, beverages...)



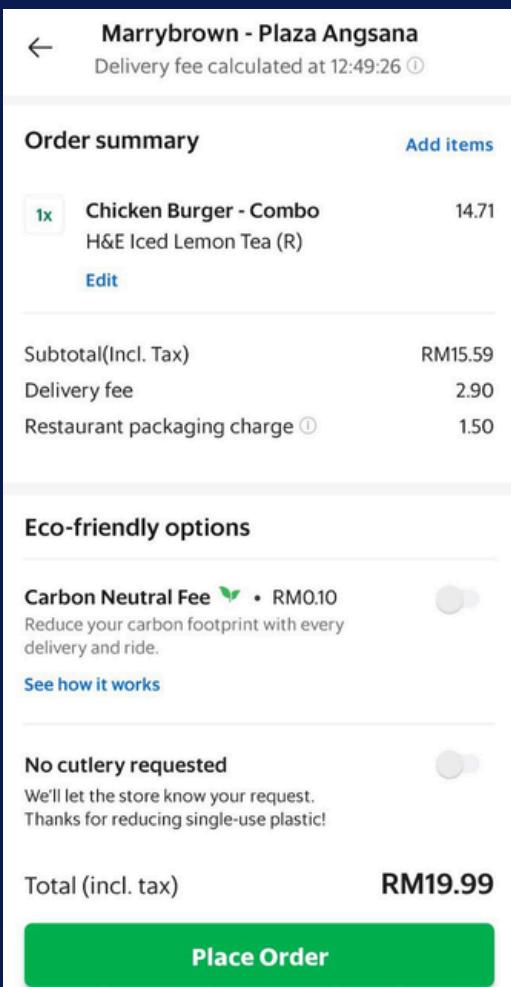
Clear instructions on how to order

User Friendly Interface



Efficient and secure billing system

Order tracking system



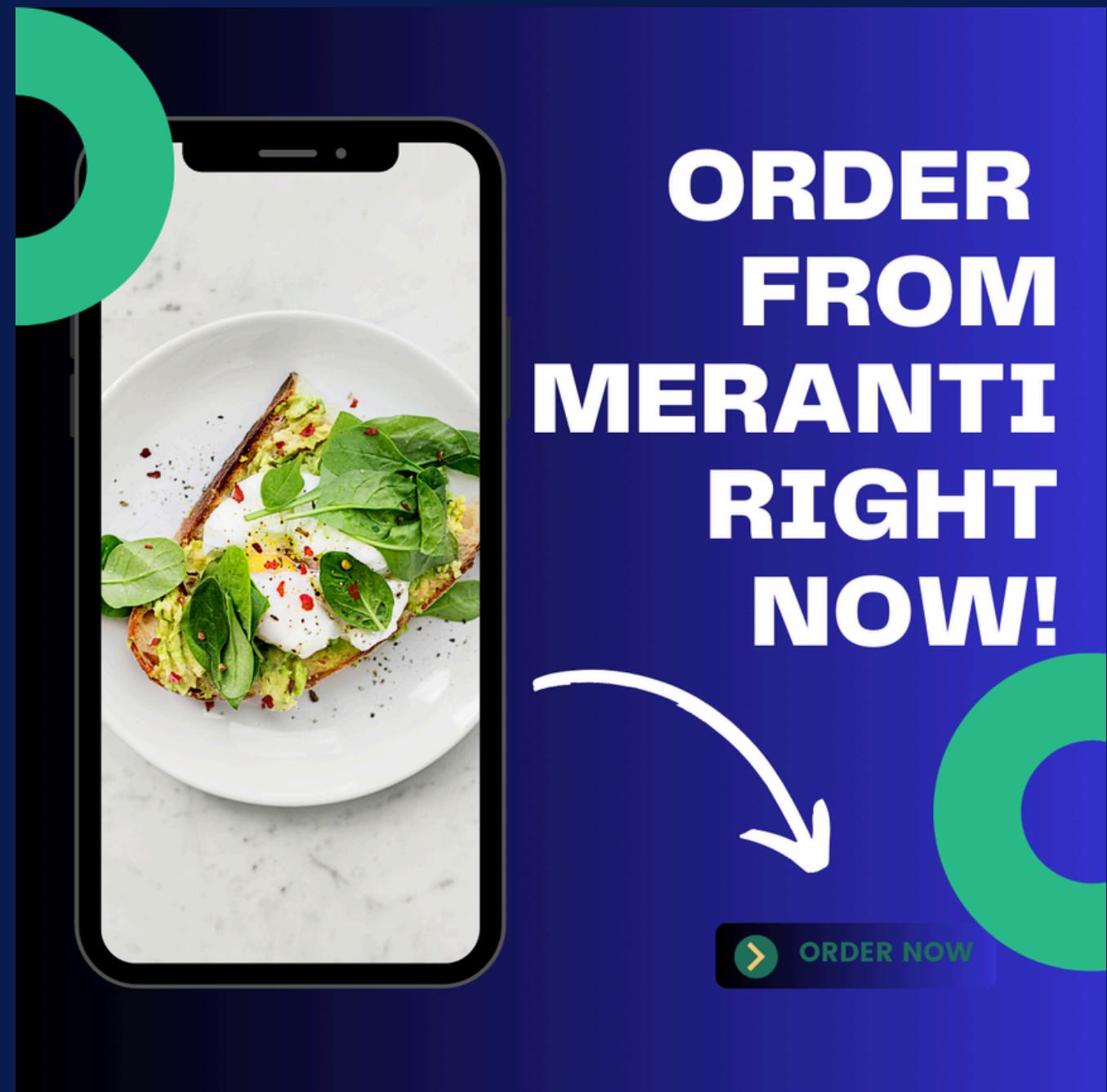
Proposed System

Our proposed system aims to digitalize the ordering process for UTM's cafeteria.

Rather than the manual existing process, users can virtually view the menus, place orders online, choose either self-pickup or delivery option, and the payment option.

This digital solution will minimize queues

- and wait times, thus enhancing convenience for users.





Scope

Primary User Base

UTM students as the main users, with potential access for faculty, staff, and visitors.

Participating Vendors

Participating food outlets within Meranti Food Court, specifically those offering local Malay dishes, Western food, and café items.

Ordering and Delivery Boundaries

- **In-House Orders:** For users who prefer to pre-order for pick-up.
- **Campus Delivery:** to be limited to on-campus locations, for logistics and convenience.

Main functionalities

- **Login or sign up:** Users can log in into their existing account or sign up with a new account.
- **Menu Display:** Students can view the cafeteria menu digitally.
- **Order placement:** Users can select items and place orders.
- **Payment option:** Users can choose either online payment or cash, to provide flexibility.
- **Order Tracking:** The system provides real-time order status when the order is ready for pickup, or to be delivered.
- **Delivery option:** Users can choose a delivery option, and choose an address within the campus area.





Benefits

- **Easy ordering and clear order updates:** providing a user friendly interface, where users receive real-time updates and easier tracking, thus maximizing efficiency.
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Time saving: minimizes the long queues, waiting time and crowdiness in Meranti, making the environment more comfortable.

Convenience : it is convenient for all users, especially with the delivery option, making it accessible for all students with busy schedules.

Initial Classes

User

Manages information about users, including students, faculty, staff, and visitors.

- **userID:** Unique identifier for each user.
- **name:** Full name of the user.
- **email:** Contact email.
- **password:** Encrypted
- **accountType:** Defines the user type (student, staff, visitor...etc)

Menu

Represents the cafeteria menu items that can be ordered.

- **menuID:** Unique identifier for the menu.
- **itemList:** List of all the available menu items (each as MenuItem object)

MenuItem

Represents an individual item available on the menu.

- **itemID:** Unique identifier for each item.
- **itemName:** Name of the food item.
- **price:** Price of the food item.
- **description:** Brief description of food item.
- **category:** Category of the item

Order

Represents an order placed by the user.

- **orderID:** Unique identifier for each order.
- **userID:** ID of the user placing the order.
- **items:** List of ordered MenuItem objects.
- **status:** Current status of the order (e.g., Pending, In Preparation, Ready for Pickup, Delivered).
- **totalAmount:** Total amount to be paid.
- **deliveryOption:** Specifies whether it's a self-pickup or delivery

Initial Classes

Payment

Manages payment processing for orders.

- **paymentID:** Unique identifier for each payment.
- **orderID:** Order associated with this payment.
- **amount:** Total amount to be paid.
- **paymentMethod:** Specifies the payment method (cash or online).
- **status:** Status of the payment (successful, unsuccessful)

OrderTracking

Allows users to track their order status in real time.

- **trackingID:** Unique identifier for tracking.
- **orderID:** Order associated with this tracking.
- **currentStatus:** Current status of the order.
- **estimatedTime:** Estimated time for order completion.

Delivery

Manages delivery information and logistics.

- **deliveryID:** Unique identifier for each delivery.
- **orderID:** Order associated with this delivery.
- **deliveryAddress:** Address for the delivery within the campus.
- **deliveryStatus:** Current status of the delivery.

Vendor

Represents participating food outlets in the cafeteria.

- **vendorID:** Unique identifier for each vendor.
- **vendorName:** Name of the food outlet.
- **location:** Location within the Meranti Food Court.
- **menu:** Menu items offered by the vendor (collection of MenuItem)

Thank You
for your
attention!