	FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ASSIGNMENT 2: DEVELOPMENT PROGRESS
BITM 2113 (WEB APPLICATION DEVELOPMENT)

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Project Title	Order Management System for GRAB or Food Panda Runner Orders
Lecturer's Name	DR. MOHD KHALID BIN MOKHTAR
Due date: 13 June 2025	**Course : 3 BITS**

1.0 Introduction

Sup Tulang ZZ is a well-known local restaurant specializing in rich, flavorful Sup Mi Rebus Tulang, served fresh daily using a 51-year-old family recipe. As the restaurant continues to grow in popularity, the demand for efficient food delivery services through GRAB and Food Panda has increased significantly. To support this growing need, we are developing an Order Management System that streamlines the assignment and tracking of delivery orders handled by GRAB and Food Panda runners.

This system will provide restaurant staff with tools to manage customer orders, assign deliveries to runners, and monitor real-time status updates to ensure smooth coordination and high customer satisfaction.

1.1   Problem   Statement
Currently, Sup Tulang ZZ handles delivery orders manually, which often leads to miscommunication, delays, and lack of transparency in delivery tracking. Without a centralized system to assign and monitor deliveries, staff find it difficult to keep track of order statuses, and runners face challenges in accessing clear and timely delivery instructions. This inefficiency affects customer satisfaction and operational productivity.

1.2 Objective

The main objective of this project is to develop a user-friendly Order Management System for Sup Tulang ZZ that supports the efficient handling of delivery orders through GRAB and Food Panda. Specifically, the system aims to:

- Streamline order assignments by allowing restaurant staff to easily allocate delivery tasks to runners.

- Provide a clear interface for runners to view order details, including customer information and delivery address.
- Enable real-time delivery tracking by allowing runners to update order status (e.g., Picked Up, In Transit, Delivered).
- Improve communication between restaurant staff and delivery personnel through timely notifications.
- Enhance customer satisfaction by ensuring fast, organized, and reliable delivery service.
- Modernize restaurant operations through a digital solution that supports business growth and scalability.

1.3 Roles of Members

Our group consists of three members, each assigned specific responsibilities to ensure the successful development and deployment of the Order Management System for Sup Tulang ZZ.

1. Heng Yi Sheng – Team Lead, Runner Module Developer & UI Designer
   Heng Yi Sheng leads the team, manages task coordination, and focuses on building the Runner module and the overall user interface design.

   Main Responsibilities:

   - Implement login and registration system for runners.
   - Develop the runner interface to view assigned order details (customer name, items, delivery address).
   - Enable runners to update delivery status in real time (Picked Up → In Transit → Delivered).
   - Build a notification system to alert staff when the delivery status is updated.
   - Handle backend routes for:
     - Runner: POST, GET
     - Order: GET, UPDATE
     - Notification: ADD
   - Design and implement user-friendly UI for customers, staff, and runners, focusing on usability and clarity using figma.

2. Emanuel – Customer Module Developer & Database Manager

Emanuel is responsible for implementing the Customer-side functionalities and designing the database schema.

Main Responsibilities:

- Develop membership registration and login for customers.
- Implement features to view menu items, add them to the order, and proceed with the ordering process (including payment if applicable).
- Handle backend routes for:
  - Member: POST, GET, UPDATE
  - Menu: GET (single & all)
  - Order: POST, GET, UPDATE, DELETE
- Design and set up the MySQL database, ensuring all entities (members, menu items, orders, runners, staff) are well-structured and normalized.

3. Danial – Staff Module Developer & System Architect

Danial responsible for building the Staff interface and managing the overall system architecture and code structure.
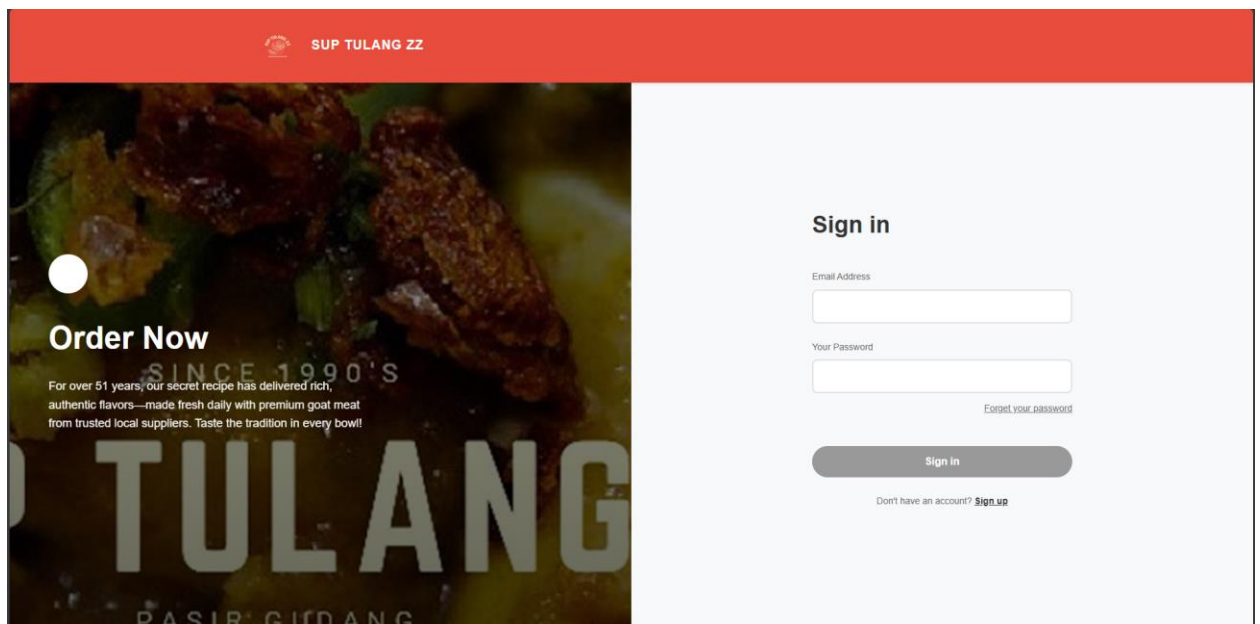
Main Responsibilities:

- Develop login and registration system for staff users.
- Implement member management features (Add, View, Update, Delete).
- Create a system for staff to view current orders and assign them to GRAB or Food Panda runners.
- Handle backend routes for:
  - Staff: POST, GET
  - Member: POST, GET, UPDATE, DELETE, GET ALL
  - Order: GET, GET ALL, UPDATE
- Design and organize the system architecture, ensuring scalability and clean code structure across the backend and frontend.

2.0 Functions available in the system

1. Customer Functions

- Customer Registration & Login
    - Create an account and log in securely.

- View Menu
  - o Browse all available menu items with descriptions and prices.
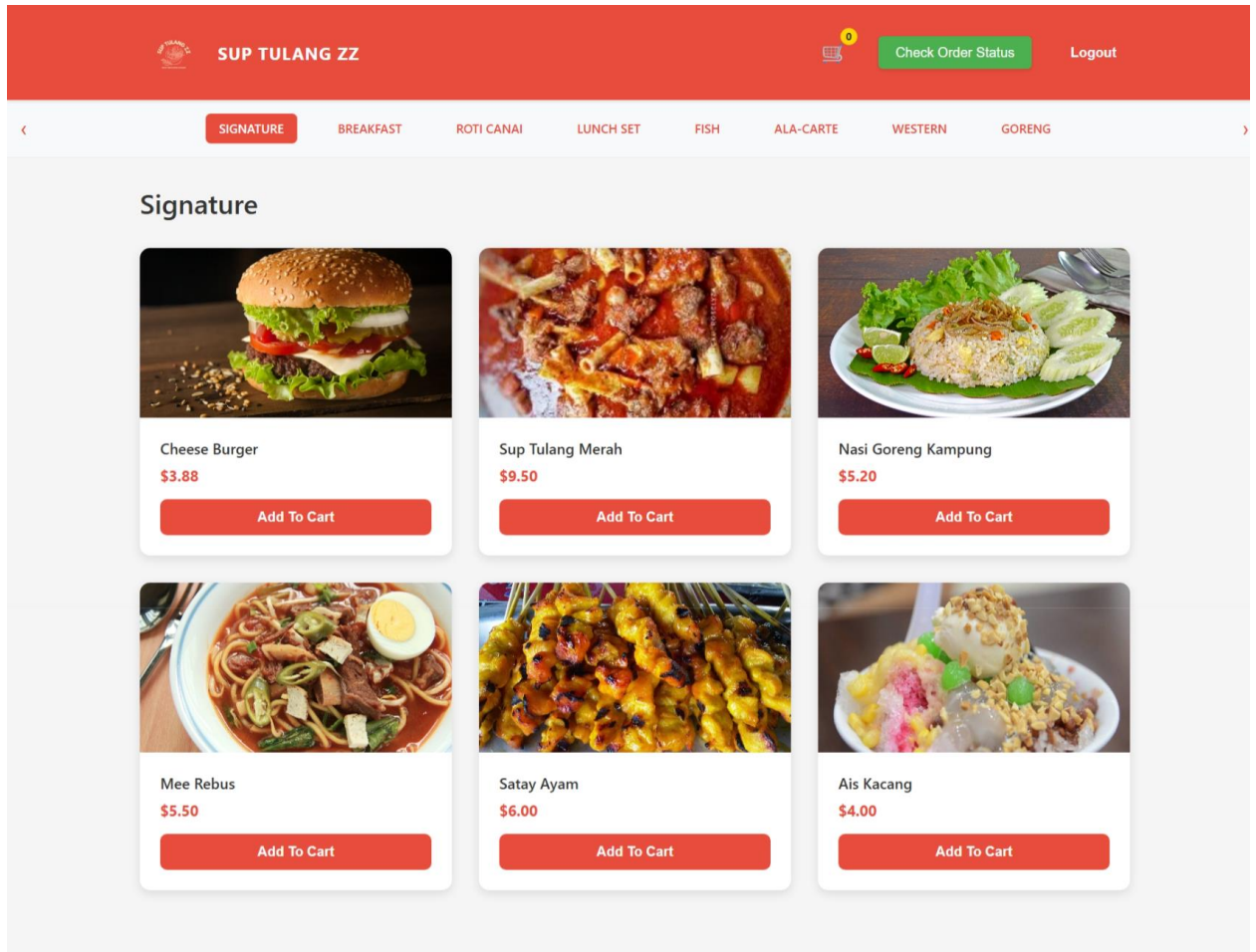
- Place Order
  - o Select items from the menu, add to cart, and place an order.

SUP TULANG ZZ

Check Order Status   Logout

SIGNATURE   BREAKFAST   ROTI CANAI   LUNCH SET   FISH   ALA-CARTE   WESTERN   GORENG

Signature

Cheese Burger
$3.88
✓ Added 2x to cart
Remove from Cart

Sup Tulang Merah
$9.50
−   1   +
Confirm   Cancel

Nasi Goreng Kampung
$5.20
Add To Cart

Mee Rebus
$5.50
Add To Cart

Satay Ayam
$6.00
Add To Cart

Ais Kacang
$4.00
Add To Cart

Order Cart #12456

Cheese Burger
$3.88
⊖   1   ⊕

Delivery Details ▾
Recipient Name :   XXXXX XXX XX
Phone Number :   XXX-XXXXXXX
City :   XXXXX
Email :   xxxxxxxxxxxxxxxxxxxxxxxxx@xxxx.xxx
Address :   XXX, XXXXXX XXXXXX,XXXX XXX

Payment Method
◉ Credit Card ○ PayPal ○ Bank Transfer

Subtotal $ 3.88
Delivery fee $6.00
Tax $ 0.93

Total   **$ 10.81**

Confirm   Cancel
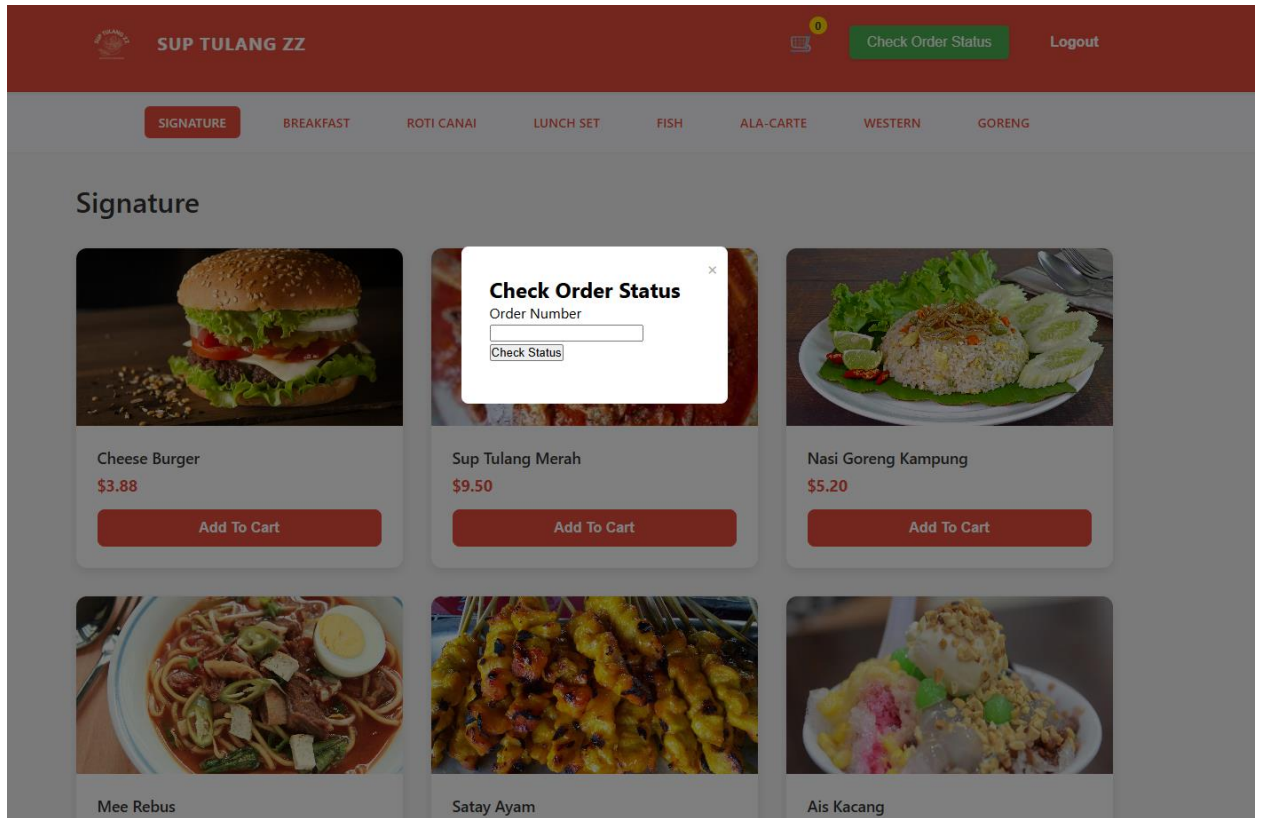
- Make Payment (optional depending on scope)
  - Proceed to payment upon order confirmation (e.g., cash on delivery or online payment).

- View Order Status
  - Track the status of their delivery (e.g., preparing, picked up, delivered).

2. Staff Functions

- Staff Registration & Login
  - o Secure login system for restaurant staff.

Sign In

Welcome back! Please sign in to your account.
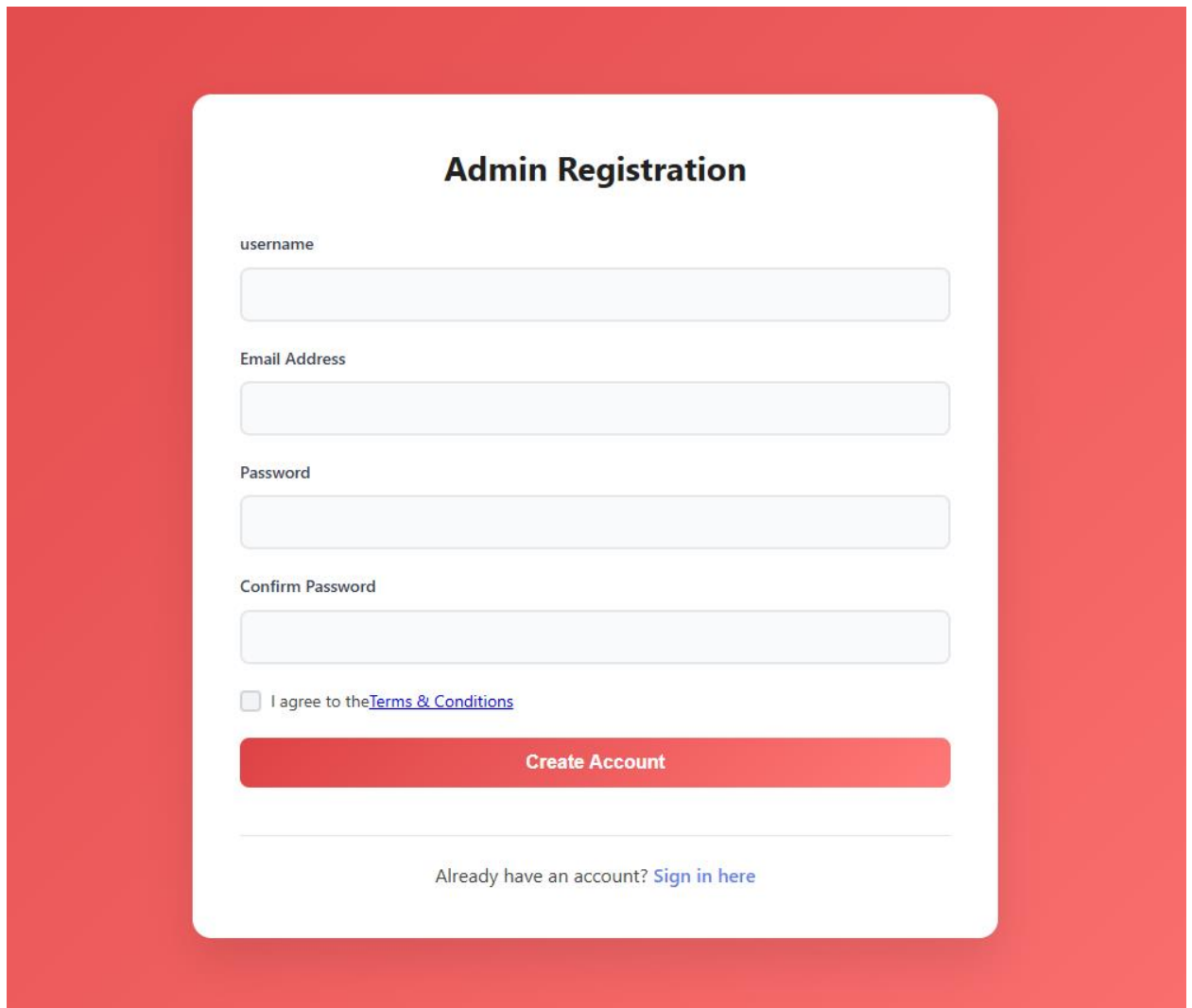
Email Address

test@gmail.com

Password

☐ Remember me   Forgot password?

Sign In

Don't have an account? **Sign up here**

- Member Management
  - View, Add, Update, and Delete customer membership information.

SUP TULANG ZZ

Memberships

Name	Email	Gender	Action
Michelle	michelle@example.com	Female	Edit Delete
Marvin McKinney	marvin.mckinney@example.com	Male	Edit Delete
Sarah Connor	sarah.connor@example.com	Female	Edit Delete
John Doe	johndoe@example.com	Male	Edit Delete
Emily Wong	emily.wong@example.com	Female	Edit Delete
Ahmad Rahman	ahmad.rahman@example.com	Male	Edit Delete
Hafiz Rahman	hafizr88@mail.com	Male	Edit Delete

- Memberships
- Orders
- Notifications

Search Members

Add Member

SUP TULANG ZZ

- Memberships
- Orders
- Notifications

Add Member

Full Name:
Test

Email:
jfnjdsnjfn@kfcmsd

Password:

Phone Number:
dflsmkdfms

Add Member

- Order Management
    - View current and pending orders.
    - Assign delivery orders to GRAB or Food Panda runners.

SUP TULANG ZZ

Orders

New Orders | Current Orders | Completed Orders

Order Id	Customer	Address	Action
Order#22001	Michelle	100, Jalan Bandar, Taman Bahagia	Accept Decline
Order#22002	Marvin McKinney	25, Jalan Melaka Raya, Taman Indah, 75000 Melaka	Accept Decline
Order#22003	Sarah Connor	45, Jalan Sultan, Bandar Hilir, 75000 Melaka	Accept Decline
Order#22004	John Doe	12, Jalan Hang Tuah, Taman Merdeka, 75300 Melaka	Accept Decline

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SUP TULANG ZZ

This page says
Assigned Runner1 to Order 21345

OK

Orders

New Orders | Current Orders | Completed Orders

Current Orders

Order Id	Customer	Address	Action
Order#21346	Marvin McKinney	Jalan Bahagia	Assign Runner
Order#21345	Michelle	100, Jalan Bandar, Taman Bahagia, 50000 Durian Tunggal	Assign Runner
Order#21346	Marvin McKinney	Jalan Bahagia	Assign Runner
Order#21345	Michelle	100, Jalan Bandar, Taman Bahagia, 50000 Durian Tunggal	Assign Runner
Order#21346	Marvin McKinney	Jalan Bahagia	Assign Runner
Order#21345	Michelle	100, Jalan Bandar, Taman Bahagia, 50000 Durian Tunggal	Assign Runner
Order#21346	Marvin McKinney	Jalan Bahagia	Assign Runner

Memberships
Orders
Notifications

- Monitor Delivery Status
  - o Receive notifications when orders are picked up or delivered.
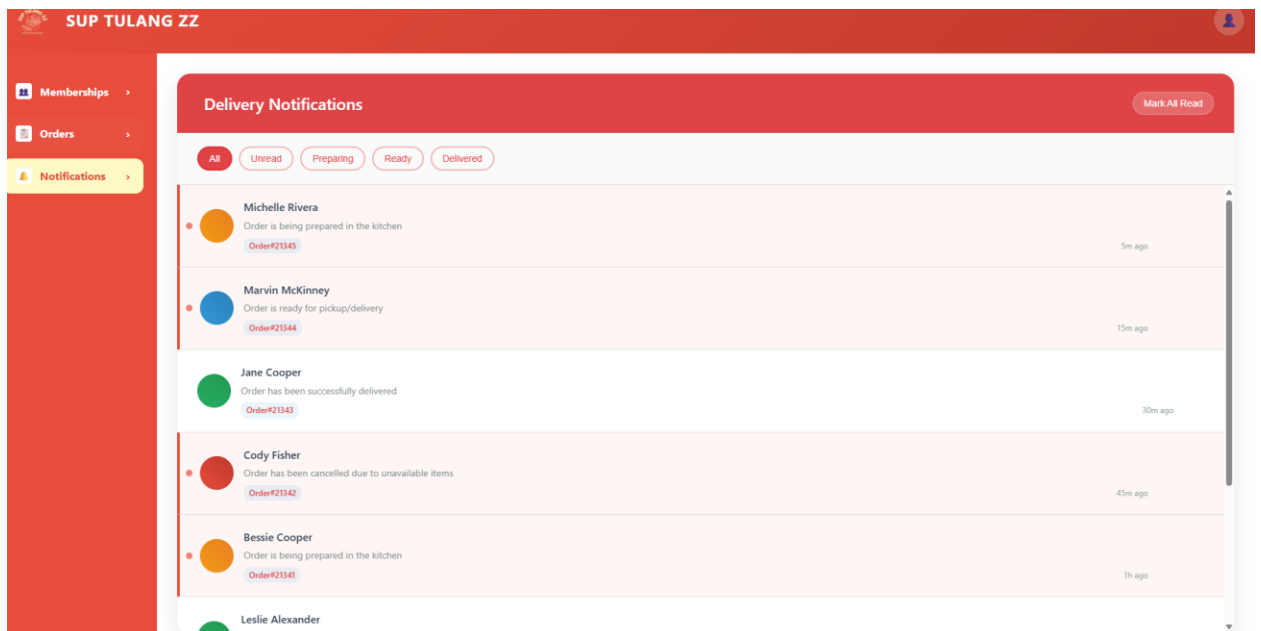
3. Runner Functions

- Runner Registration & Login
  - o Create and log in to runner accounts.

- View Assigned Orders
  - Access detailed information of assigned orders including:
    - Customer name
    - Delivery address

- Update Delivery Status
  - Mark the order as:
    - Picked Up
    - In Transit
    - Delivered

SUP TULANG ZZ

This page says
Mark Delivering for Order #21348?

OK   Cancel

Current Orders   Completed Orders

Current Orders

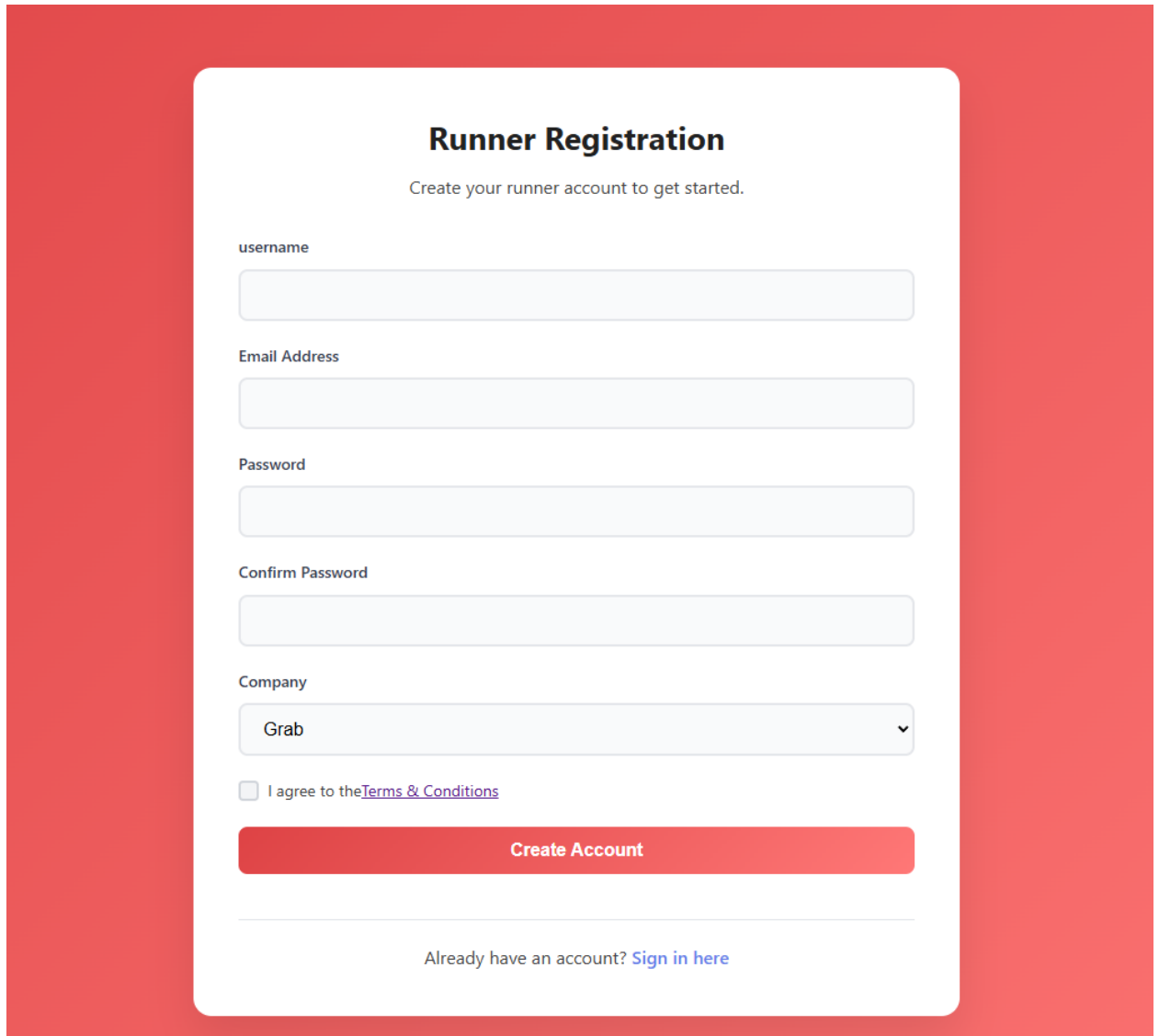| Order Id	Customer	Address	Status	Action
Order#21348	John Doe	12, Jalan Hang Tuah, Taman Merdeka, 75300 Melaka	Ready	Mark Delivering
Order#21346	Marvin McKinney	25, Jalan Melaka Raya, Taman Indah, 75000 Melaka	Ready	Mark Delivering
Order#21345	Michelle	100, Jalan Bandar, Taman Bahagia, 50000 Durian Tunggal	Ready	Mark Delivering
Order#21347	Sarah Connor	45, Jalan Sultan, Bandar Hilir, 75000 Melaka	Ready	Mark Delivering
Order#21350	Ahmad Rahman	33, Jalan Mawar, Taman Damai, 75200 Melaka	Delivering	Mark Completed
Order#21349	Emily Wong	88, Jalan Bunga Raya, Taman Sejahtera, 75450 Melaka	Delivering	Mark Completed

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SUP TULANG ZZ

This page says
Mark Completed for Order #21350?

OK   Cancel

Current Orders   Completed Orders

Current Orders

Order Id	Customer	Address	Status	Action
Order#21348	John Doe	12, Jalan Hang Tuah, Taman Merdeka, 75300 Melaka	Ready	Mark Delivering
Order#21346	Marvin McKinney	25, Jalan Melaka Raya, Taman Indah, 75000 Melaka	Ready	Mark Delivering
Order#21345	Michelle	100, Jalan Bandar, Taman Bahagia, 50000 Durian Tunggal	Ready	Mark Delivering
Order#21347	Sarah Connor	45, Jalan Sultan, Bandar Hilir, 75000 Melaka	Ready	Mark Delivering
Order#21350	Ahmad Rahman	33, Jalan Mawar, Taman Damai, 75200 Melaka	Delivering	Mark Completed
Order#21349	Emily Wong	88, Jalan Bunga Raya, Taman Sejahtera, 75450 Melaka	Delivering	Mark Completed

4. System-Level Functions

- Session Management & Authentication
  - Login sessions using cookies or PHP session management for secure access.
- Real-time Notifications
  - Notify restaurant staff of delivery updates (e.g., pickup and delivery completion).
- Form Validation
  - Ensure valid input in forms using JavaScript (e.g., registration, login, ordering).
- Responsive User Interface
  - Clean and responsive layout using CSS for all user roles (Customer, Staff, Runner).
- CRUD Operations
  - Full support for Create, Read, Update, and Delete on key data entities:
    - Members
    - Orders
    - Staff
    - Runners

3.0 Conclusion

The development of the Order Management System for Sup Tulang ZZ marks a significant step toward digitalizing and streamlining the restaurant's delivery operations. By integrating essential features such as customer registration, order placement, runner assignment, and real-time delivery status tracking, this system enhances efficiency and communication between restaurant staff, runners, and customers.

With over 51 years of culinary tradition behind Sup Tulang ZZ, this system allows the restaurant to maintain its authentic service quality while adapting to the fast-paced digital environment of modern food delivery. Each team member has contributed their technical expertise covering UI design, backend development, system architecture, and database management to build a functional and user-friendly platform.

Ultimately, this project not only solves real operational challenges but also serves as a strong foundation for future enhancements such as online payments, mobile integration, and performance analytics. It is a practical and scalable solution that supports the long-term growth and success of Sup Tulang ZZ.

4.0 Database setup

Webserver: xampp   localhost
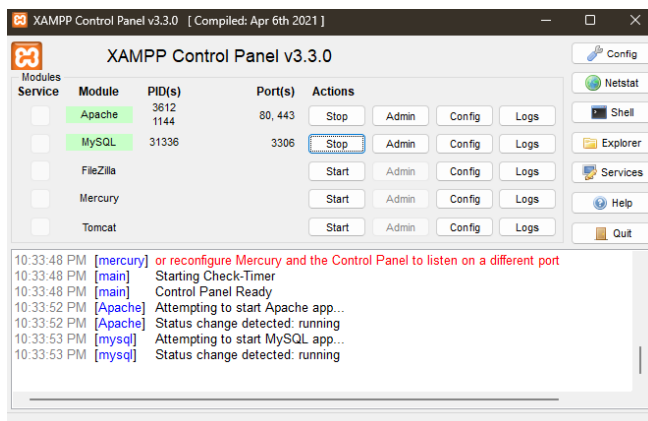
Mysql database with 4 tables

Structure | SQL | Search | Query | Export | Import | Operations | Privileges | Routines | Events | Triggers | Designer

Filters

Containing the word:

Table ▲	Action								Rows	Type	Collation	Size	Overhead
☐ menu	⭐	Browse	Structure	Search	Insert	Empty	Drop		0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ ordering	⭐	Browse	Structure	Search	Insert	Empty	Drop		0	InnoDB	utf8mb4_general_ci	48.0 KiB	-
☐ order_item	⭐	Browse	Structure	Search	Insert	Empty	Drop		0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
☐ user	⭐	Browse	Structure	Search	Insert	Empty	Drop		0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
4 tables	Sum								0	InnoDB	utf8mb4_general_ci	112.0 KiB	0 B

☐ Check all   With selected:

Print Data dictionary

Create new table

Table name   Number of columns
                              4

Create