Explanation

System Architecture Diagram

This system connects users and administrators through their devices to a cloud server that handles all order processing and data management. The cloud server stores information in a database and communicates updates via SMS notifications to customers and delivery personnel. Delivery staff receive notifications on their devices and update delivery statuses, ensuring smooth coordination and timely updates throughout the ordering and delivery process.

Level 0.0

The Level 0 Data Flow Diagram (DFD) illustrates how the Ordering and Tracking System interacts with its main users: Customers, Admin/Staff, and Delivery Personnel. The process begins when a Customer places an order request through the system. This order request is received by the Admin or Staff, who are responsible for managing and processing orders. They review the order details, confirm the availability of items, and assign appropriate delivery instructions for the Delivery Personnel.

After preparing the delivery details, the Admin/Staff forwards the delivery instructions through the system to the Delivery Personnel. This ensures that the delivery staff knows where to deliver the order and any other important notes related to the transaction. Once the delivery is underway or completed, the Delivery Personnel updates the order status through the system. This update helps both the Admin/Staff and the Customer to track the progress and status of the order.

Level 1.0

In Level 1.0, the system starts with Manage Customer Orders, where customer order details are captured and stored. These orders are passed to Manage Orders, where staff or admins can view, approve, cancel, or update the order status. Once an order is approved and ready, it proceeds to Manage Delivery, where delivery assignments, statuses, and delivery records are handled. The system keeps track of Delivery Data and stores all transactions in Delivery Records for easy monitoring, ensuring that every order moves smoothly from placement to delivery.

Level 2.0

In Level 2.0, after receiving a customer order notification, the Admin or Staff views the order details through 2.0 View Customer Order and checks its current status. They can manage customer orders by adding delivery instructions, creating new orders, or updating order statuses. If the order is approved and ready, the system proceeds to 3.1 Assign Delivery Personnel, where a specific delivery person is assigned. After assignment, in 2.2 Manage Customer Orders, the team prepares the items for delivery. Finally, through 3.2 Prepare Customer Orders, the order is packed and ready to dispatch, and the delivery status is updated in the system — ensuring both the team and customer are informed at every stage

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