Proposed ERD/DFD

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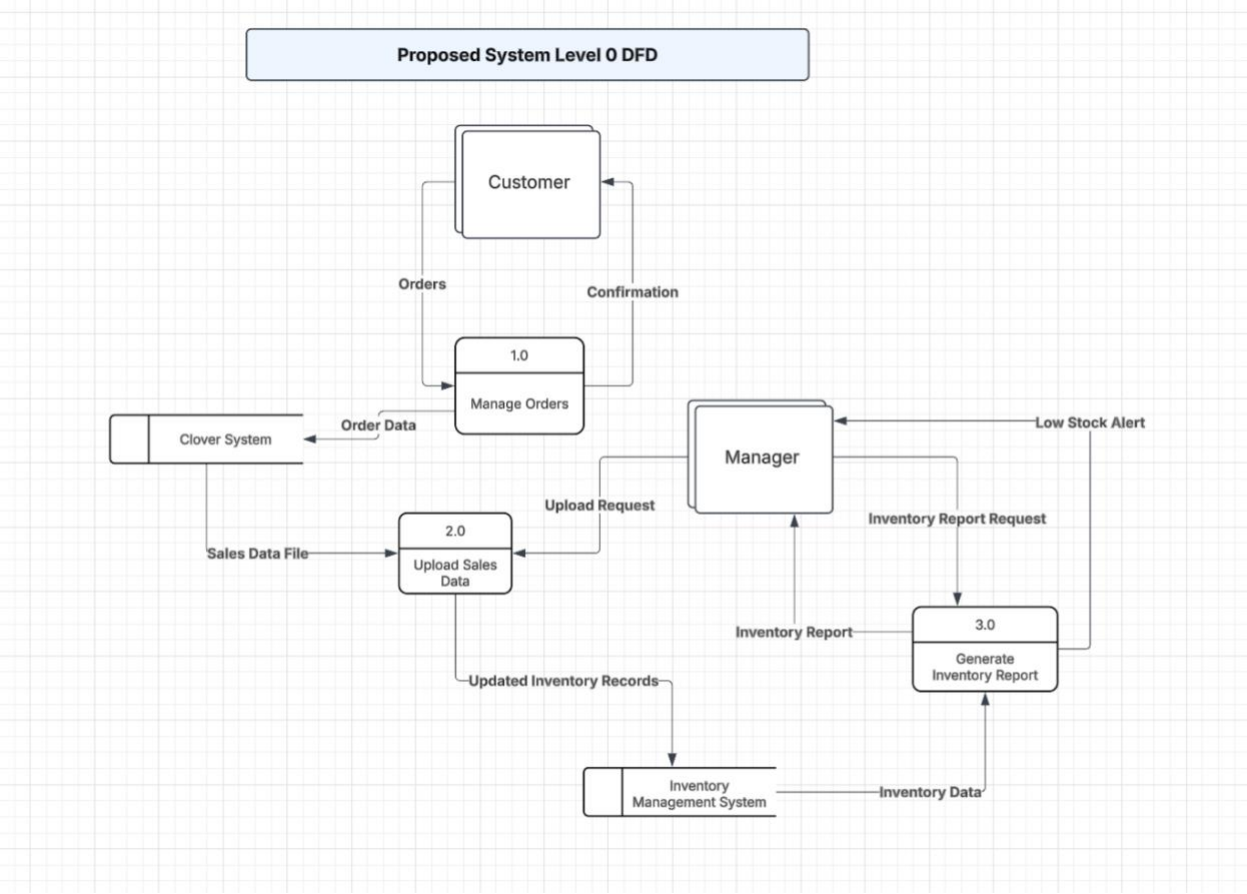
Level 0 DFD:



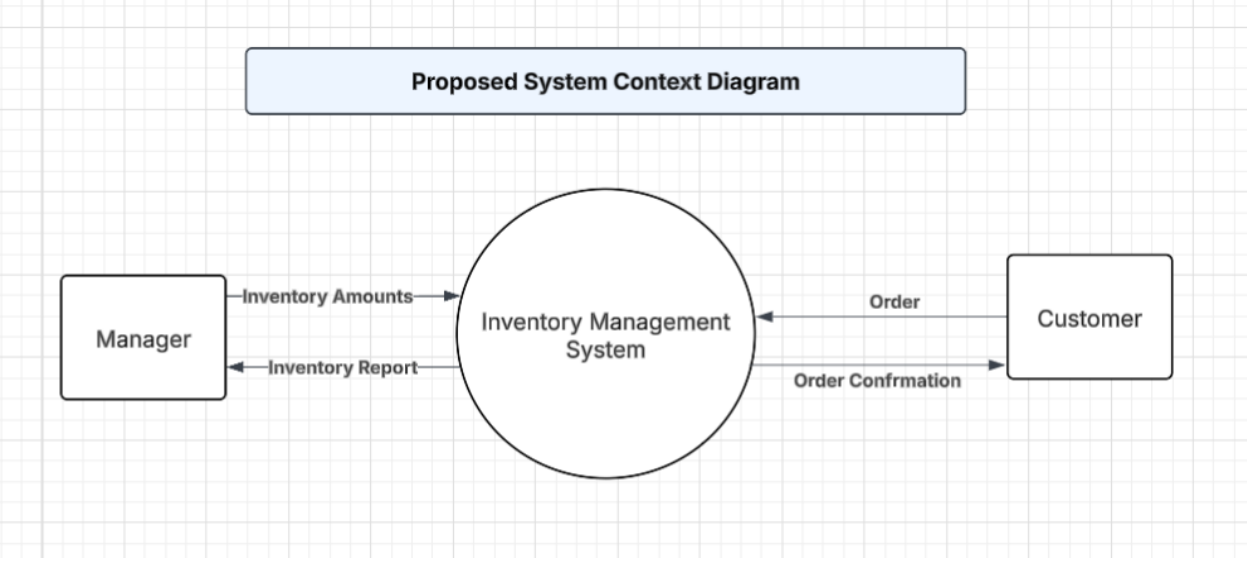
Description:

Process 1.0 shows how customer orders are managed. When a customer places an order, the system captures it and sends a confirmation back to the customer. At the same time, the order details are sent to the Clover System, where sales and order data are stored for tracking. This process ensures orders are properly logged and confirmed.

Process 2.0 focuses on uploading sales data. When the manager submits an upload request, the system retrieves the sales data file from the Clover System. This data is then used to update the inventory records. The updated inventory records are sent to the Inventory Management System to keep track of stock levels.

Process 3.0 describes how inventory reports are generated. When the manager submits a report request, the system pulls inventory data from the Inventory Management System and compiles it into a report. This report is then sent to the manager. If the data indicates that certain items are running low, the system alerts a low stock alert to the manager, helping the manager take timely action to restock and avoid shortages.

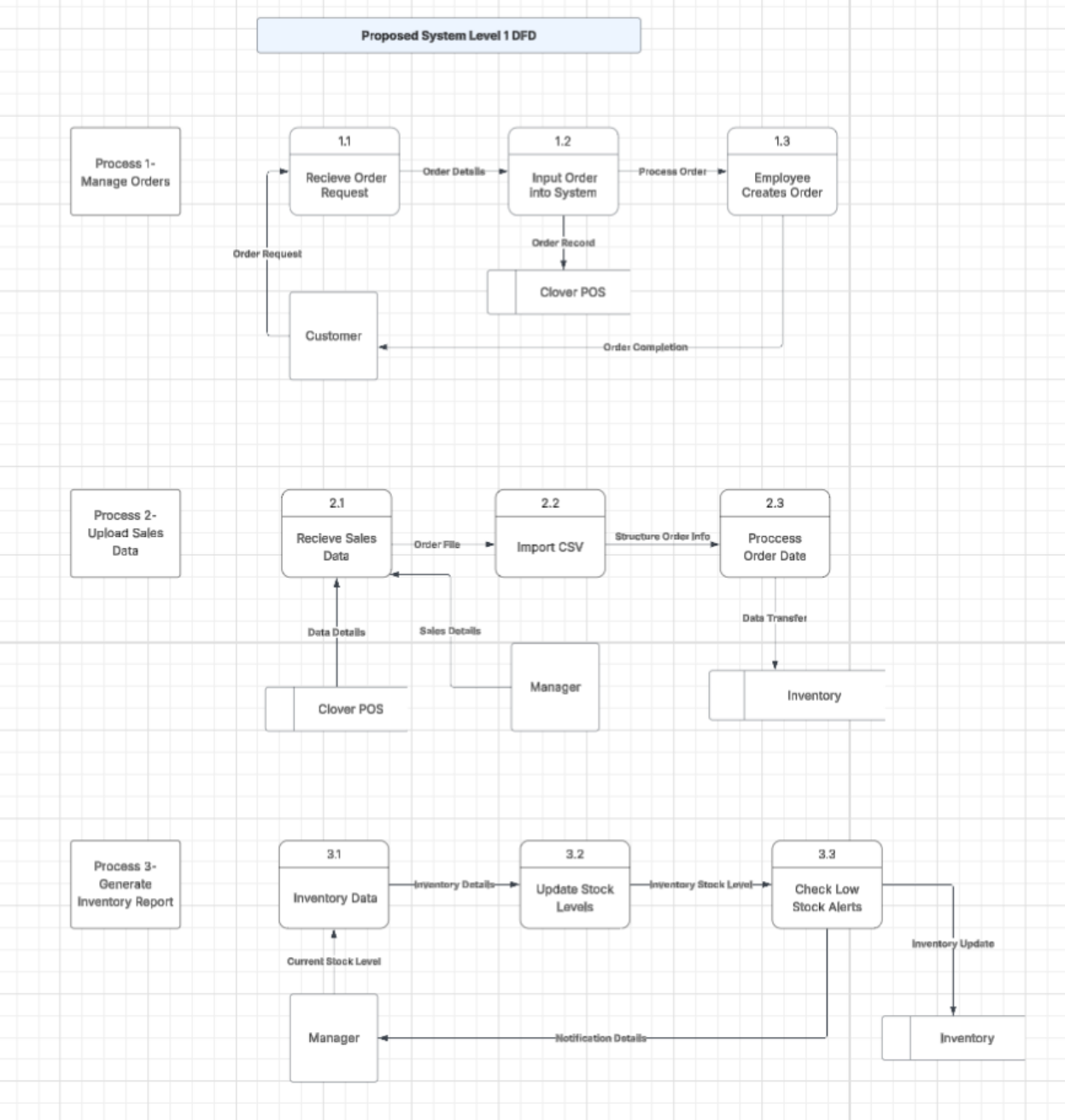
Context Diagram:



Description:

The Customer places an order, which is received by the Inventory Management System. Once the order is processed, a confirmation is sent back to the customer to acknowledge receipt and update them on the order status. The Manager also interacts with the system by providing inventory amounts. Based on this input, the system generates an inventory report and sends it back to the Manager, helping them monitor stock levels and make informed decisions.

Level 1 DFD:



Description:

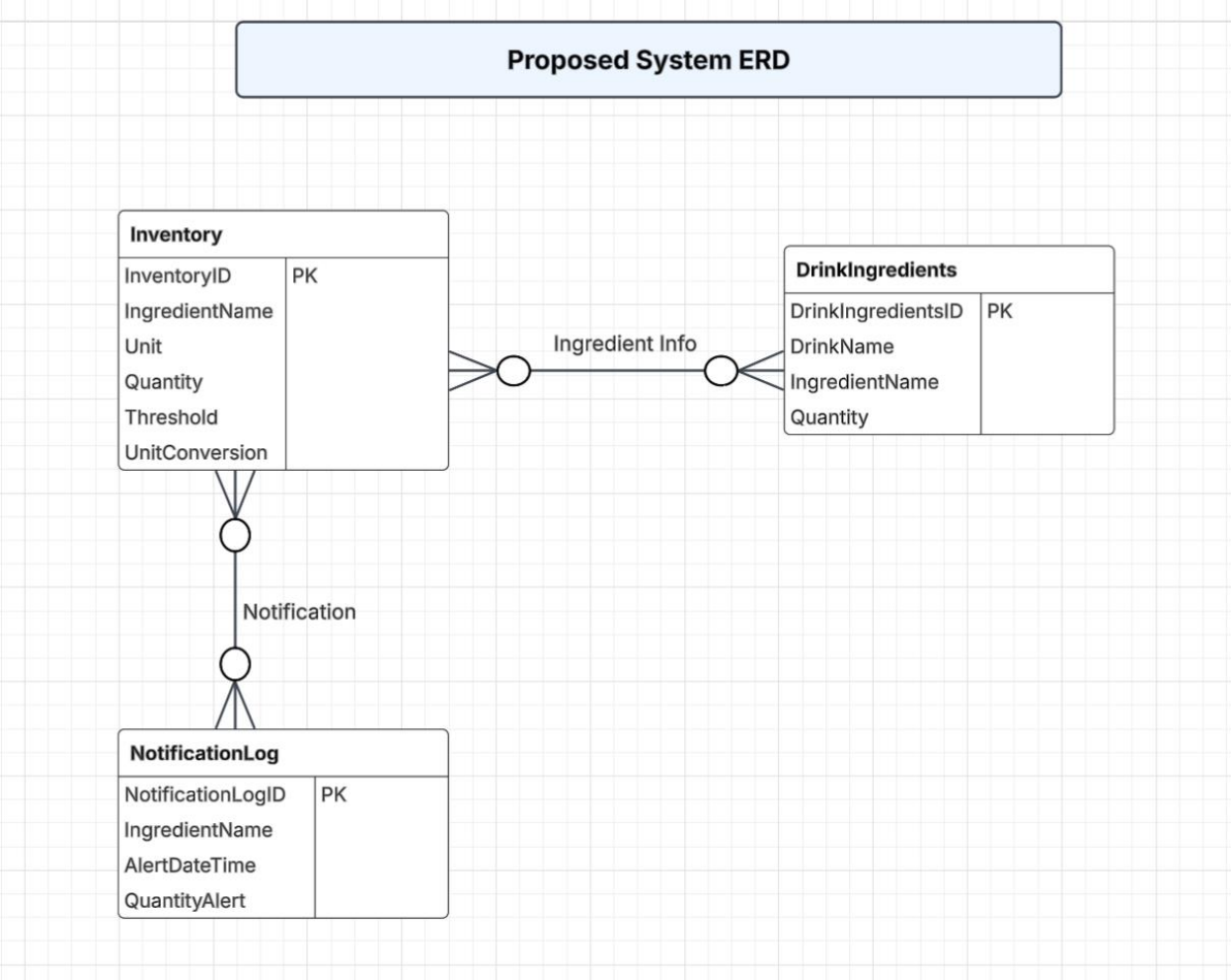
Process 1.0 shows the actions that reduce the inventory. When an order request is received (1.1) an employee must confirm and input the order into Clover POS (1.2). The Clover POS then confirms the order and records the purchase. Once the order has been logged in the POS, an employee begins creating the order for the customer (1.3). After this the order is complete and goes back to the customer.

Process 2.0 involves uploading the sales data for the database. Sales Data from Clover POS is

downloaded by the manager and is received in CSV format (2.1). Then the CSV file is imported into the database (2.2). Once the CSV data is structured and input into the database (2.3), the information is processed in the inventory database and moves into process 3.

Process 3.0 shows the process of generating the inventory report. After 2.0 is completed, the manager views the current stock level in the Inventory Data (3.1). Then uses the Inventory data to update the stock levels (3.2). Once the stock is updated then conversions are made and the low stock alerts are made (3.2). This sends a notification in the inventory database and to the manager.

ERD:



Description:

The Manager inputs ingredient details into the Inventory system, which includes quantity, unit, and threshold values. When a drink is created, the system pulls the required ingredients from the Inventory using the DrinkIngredients table to track which items are used and how much will be

needed. As ingredients are used, the Inventory is updated automatically. If any ingredient quantity drops below a certain threshold, the system triggers a Notification, which is logged in the NotificationLog table. This alert helps the Manager identify low-stock items and that it's time to take action to restock, ensuring smooth cafe operations.