**POS System Requirements Document**

**Project Name**: Inventory Management POS System

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**Prepared by**: Sheraz Ahmed

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**1. Introduction**

**1.1 Purpose**

This document outlines the functional requirements for the Inventory Management POS System. The system is designed to streamline sales, manage inventory, and facilitate transactions with features such as print options, delivery and quotation handling, partial payments, and a user-friendly interface.

**1.2 Scope**

The POS system will support operations both offline and online, using IndexedDB for local data storage and PostgreSQL for central database synchronization when online. It is intended for businesses needing efficient inventory and sales management across multiple devices.

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**2. Functional Requirements**

**2.1 Print Functionality**

The system provides four print formats to accommodate different sales documentation needs:

- ***Print with Header and Product Code***: A standard print option including the company header and unique product code (auto-generated upon product entry in the inventory).

- ***Print with Part Number***: A print format that includes the part number for each product, suitable for detailed product tracking.

- ***Print without Header (A4 Size)***: A simplified print format that excludes the company header but includes the product code.

- ***Print with Header and Part Number (A4 Size):*** A detailed print format that includes the company header, part number, and product code in A4 size, ideal for more formal documentation.

**2.2 Delivery and Quotation Management**

**- Delivery Handling:**

Allows tracking of products delivered to customers who have not yet paid.

**Example**: A customer purchases items on delivery, receiving a delivery slip with a unique bill code. When the customer returns to pay, the delivery can be converted into a cash invoice using this bill code. Once converted, the delivery record remains in the delivery section but is marked as "paid" and cannot be converted again, ensuring accurate payment records.

**- Quotation Management:**

Enables generating quotations for customers inquiring about product prices without affecting inventory.

Example: A customer visits the store and requests a quotation for selected products. The system prints a quotation slip, and the inventory remains unchanged as the products are not yet purchased. If the customer decides to buy later, the quotation can be converted into a cash invoice. Multiple quotations can be combined into a single cash invoice if the customer makes a larger purchase.

**2.3 Return Invoice Functionality**

**- Product Returns:**

Provides a return invoice feature to handle product returns, adjusting inventory and refunding customers.

**Example:** A customer returns a product purchased earlier. The system generates a return invoice, adjusts the stock to add the returned product back to the inventory, and calculates the refund amount for the customer.

**2.4 Payment Handling (Credit/Cash)**

**- Partial Payments:**

Supports accepting payments through different methods, such as partial payments by credit card and cash.

**Example**: If a customer has a total bill of $500 and pays $300 via card and the remaining $200 in cash, the system records both payment methods and the corresponding amounts, ensuring accurate transaction records.

**- Discount Functionality:**

Allows the manual application of discounts directly on the total bill.

Example: If a customer’s total bill is $99.50, and a discount of $0.50 is offered, the user can manually enter this amount, reducing the total to $99.

**2.5 Simultaneous Invoice Handling**

**- Multiple Cash Invoices:**

Allows users to handle more than one cash invoice at a time, facilitating faster transactions.

**Example**: While processing a large invoice for a customer, a second customer with a smaller purchase arrives. The system enables pausing the first invoice to quickly process the second, improving service efficiency.

**2.6 Responsiveness and User Interface**

**- Responsive Design:**

The POS system’s interface is designed to be responsive, ensuring a smooth user experience across different devices and screen sizes. The interface should adjust dynamically without requiring horizontal scrolling.

**2.7 Manage Additional Options**

**- Deleting Added Options:**

Allows users to delete previously added data, such as brands or categories, ensuring that the inventory is kept up to date and clean.

**- Salesperson Details**:

Incorporates fields to include the salesperson's name and ID in sales records for tracking and accountability.

**4. Conclusion**

This document outlines the necessary requirements for developing a robust Inventory Management POS System. With its diverse functionalities, such as flexible print options, detailed delivery and quotation handling, efficient payment processing, and a user-friendly interface, the system aims to meet the needs of businesses managing sales and inventory online.