\*\*Shop Management System Scope Definition\*\*

\*\*1. System Overview\*\*

- The shop management system is a software application designed to streamline and automate various aspects of managing a retail shop. It is intended to enhance inventory control, sales processing, and reporting capabilities.

\*\*2. Inventory Management\*\*

- \*\*Product Management\*\*:

- Add, edit, and delete products.

- Record product details, such as name, description, category, price, and quantity.

- Assign unique product IDs or codes.

- \*\*Inventory Tracking\*\*:

- Track real-time inventory levels.

- Receive alerts when inventory reaches predefined minimum levels.

- Update inventory levels automatically when sales are processed.

- \*\*Supplier Information\*\*:

- Maintain a database of suppliers and their contact information.

- Associate products with specific suppliers.

\*\*3. Sales Processing\*\*

- \*\*Sales Records\*\*:

- Record and process sales transactions.

- Generate invoices or receipts for customers.

- Calculate and display total sales amounts.

- \*\*Customer Information\*\*:

- Store customer details, such as name, contact information, and purchase history.

- Associate sales with specific customers.

- \*\*Payment Processing\*\*:

- Accept various forms of payment (cash, credit card, etc.).

- Generate change amounts for cash transactions.

- \*\*Discounts and Promotions\*\*:

- Apply discounts or promotions to specific products or orders.

\*\*4. Reporting and Analysis\*\*

- \*\*Sales Reports\*\*:

- Generate daily, weekly, monthly, and annual sales reports.

- Include information on total sales, top-selling products, and revenue trends.

- \*\*Inventory Reports\*\*:

- Generate inventory status reports, including product availability and reordering recommendations.

- \*\*Custom Reports\*\*:

- Allow the creation of custom reports based on user-defined criteria.

\*\*5. User Management (Optional)\*\*

- \*\*User Authentication\*\*:

- Implement user authentication and authorization for system access.

- Define user roles and permissions.

- \*\*User Activity Logging\*\*:

- Log user activities and changes made to the system.

\*\*6. Security and Backup\*\*

- Implement security measures to protect data from unauthorized access.

- Regularly back up the database to prevent data loss in case of system failures.

\*\*7. User-Friendly Interface\*\*

- Create an intuitive and user-friendly interface for easy navigation and data entry.

- Include form validation to ensure data accuracy.

\*\*8. Scalability\*\*

- Design the system to accommodate future growth in terms of the number of products, customers, and sales.

\*\*9. Support and Maintenance\*\*

- Provide ongoing support and maintenance to address issues, apply updates, and enhance the system.

\*\*10. Documentation\*\*

- Prepare user documentation to guide shop staff on system usage and administration.

\*\*11. Training (Optional)\*\*

- Offer training sessions for shop staff to ensure they can effectively use the system.

By defining the scope in this manner, you create a clear and comprehensive document that outlines the objectives and functionalities of your shop management system. This scope definition will serve as a reference throughout the development process to ensure that the system meets your requirements and expectations.

Database structure

**Table: Product**

* **product\_id** (INT, Primary Key, Auto Increment)
* **name** (VARCHAR)
* **description** (TEXT)
* **category\_id** (INT, Foreign Key to Category)
* **price** (DECIMAL(10, 2))
* **quantity\_in\_stock** (INT)
* **size** (VARCHAR)

**Table: Category**

* **category\_id** (INT, Primary Key, Auto Increment)
* **name** (VARCHAR)

**Table: Customer**

* **customer\_id** (INT, Primary Key, Auto Increment)
* **first\_name** (VARCHAR)
* **last\_name** (VARCHAR)
* **email** (VARCHAR)
* **address** (TEXT)

**Table: Supplier**

* **supplier\_id** (INT, Primary Key, Auto Increment)
* **name** (VARCHAR)
* **contact\_person** (VARCHAR)
* **email** (VARCHAR)
* **address** (TEXT)

**Table: Sales**

* **sale\_id** (INT, Primary Key, Auto Increment)
* **customer\_id** (INT, Foreign Key to Customer)
* **sale\_date** (DATE)
* **total\_amount** (DECIMAL(10, 2))

**Table: SaleItems**

* **sale\_item\_id** (INT, Primary Key, Auto Increment)
* **sale\_id** (INT, Foreign Key to Sales)
* **product\_id** (INT, Foreign Key to Product)
* **quantity** (INT)
* **subtotal** (DECIMAL(10, 2))

**Table: Shipment**

* **shipment\_id** (INT, Primary Key, Auto Increment)
* **order\_id** (INT, Foreign Key to Sales)
* **shipment\_date** (DATE)
* **tracking\_number** (VARCHAR)

**Table: ShipmentTracking**

* **tracking\_id** (INT, Primary Key, Auto Increment)
* **shipment\_id** (INT, Foreign Key to Shipment)
* **status** (VARCHAR)
* **location** (VARCHAR)
* **timestamp** (DATETIME)