SariWais: Digital Inventory and Sales Management System for Philippine Sari-Sari Store Operations

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1. Project Scope

The SariWais system is a web-based application designed to help **Philippine sari-sari store owners** efficiently manage their daily operations. It provides tools for tracking inventory levels, recording sales, monitoring financial performance, and ensuring accurate data management across the store's transactions.

Purpose of the System

The system aims to **simplify store operations**, minimize manual record-keeping, prevent stock shortages, and give store owners better visibility of their business performance.

Target Users

- Micro-entrepreneurs operating sari-sari stores
- Store owners who need an accessible and easy-to-use inventory and sales tool

System Capabilities

The system provides the following features:

1. **Inventory Management**
   - Add, edit, and delete inventory items
   - Track quantity, cost price, selling price, category, reorder level, and item descriptions
   - Maintain accurate and updated stock records

2. **Transaction Tracking**
   - Record sales transactions
   - Support for Cash and GCash payments
   - Require GCash reference number for proof of payment
   - Automatically update stock levels after each sale

3. **Reporting and Summaries**
   - Generate daily, weekly, and monthly summaries
   - View total sales and top-selling products

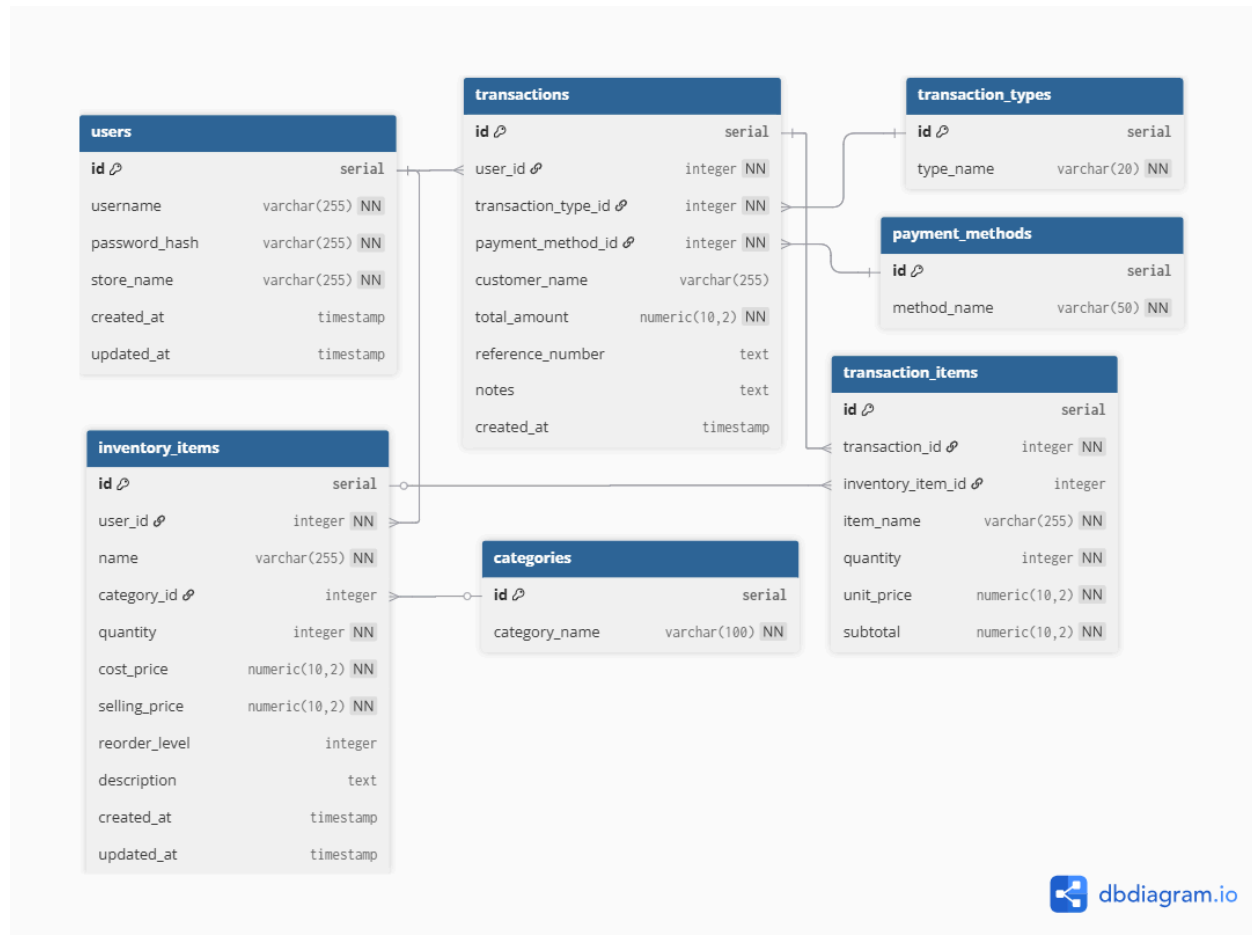4. **User Authentication and Store Profile**
   - Each store owner has a unique login account
   - System ensures privacy and data separation per store

Limitations

- Requires internet connection for data syncing
- One store account per user

2. Diagrams

2.1. Entity Relationship Diagram (ERD):

2.2. Data Dictionary

Users

Name	Type	Settings	References
id	serial	PK	inventory_items.user_id transactions.user_id
username	varchar(255)	not_null unique	
password_hash	varchar(255)	not_null	
store_name	varchar(255)	not_null	
created_at	timestamp		
updated_at	timestamp		

Categories

Name	Type	Settings	References
id	serial	PK	inventory_items.category_id
category_name	varchar(100)	not_null unique	

Payment_methods

Name	Type	Settings	References
id	serial	PK	⟻ transactions.payment_method_id
method_name	varchar(50)	not_null unique	

Transaction_types

Name	Type	Settings	References
id	serial	PK	⟻ transactions.transaction_type_id
type_name	varchar(20)	not_null unique	

Inventory_items

Name	Type	Settings	References
id	serial	PK	⟻ transaction_items.inventory_item_id
user_id	integer	not_null	⟶ users.id
name	varchar(255)	not_null	
category_id	integer		⟶ categories.id
quantity	integer	not_null	
cost_price	numeric(10,2)	not_null	
selling_price	numeric(10,2)	not_null	
reorder_level	integer		
description	text		
created_at	timestamp		
updated_at	timestamp		

Transactions

Name	Type	Settings	References
id	serial	PK	transaction_items.transaction_id
user_id	integer	not_null	users.id
transaction_type_id	integer	not_null	transaction_types.id
payment_method_id	integer	not_null	payment_methods.id
customer_name	varchar(255)		
total_amount	numeric(10,2)	not_null	
reference_number	text		
notes	text		
created_at	timestamp		

Transaction_items

Name	Type	Settings	References
id	serial	PK	transaction_items.item_name transaction_items.inventory_item_id
transaction_id	integer	not_null	transactions.id
inventory_item_id	integer		inventory_items.id transaction_items.id
item_name	varchar(255)	not_null	transaction_items.id
quantity	integer	not_null	
unit_price	numeric(10,2)	not_null	
subtotal	numeric(10,2)	not_null	

3. Business Rules

1. Each user may register only one sari-sari store account.

2. All store accounts must have a unique store name.

3. Inventory item names must be unique per store.

4. An inventory item must include: name, category, quantity, cost price, and selling price.

5. Inventory quantity can never fall below zero.

6. Prices (cost and selling) must always be greater than or equal to 0.

7. All sales transactions must belong to a valid registered user.

8. A transaction must contain at least one transaction item.

9. Inventory stock is automatically updated when sales occur.

10. Default transaction type is Sale.

11. A payment method is required for every transaction.

12. GCash payments must include a valid reference number.

13. Users may only view, edit, and manage their own store data.

14. All create and update operations are automatically timestamped.

15. Only authenticated users may manage inventory and transactions.

16. Deleted items remain visible in past transaction records to preserve history.

17. The system enforces data accuracy and referential integrity at all times.