Ortizo Store Database Project: Design and Implementation

AUTORS

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01. INTRODUCTION

This project focuses on designing a database for the Ortizo virtual store. The goal is to improve inventory control, sales tracking, and user management.

02. GOAL

The main objective is to create a structured and efficient database. This will help manage products, users, and transactions while optimizing store operations.

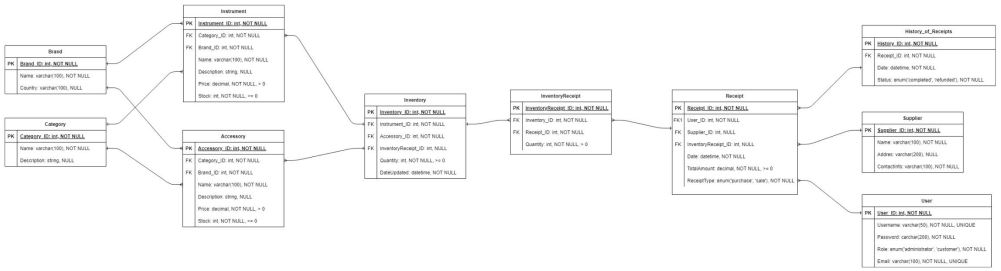
03. PROPOSED SOLUTION

The database includes essential entities such as instruments, categories, brands, inventory, users, receipts, and suppliers. These elements allow for proper tracking of sales, purchases, and stock levels.
Each instrument belongs to a category and a brand. Users can be administrators or buyers. Receipts store transaction details, and suppliers provide stock for the store.

4. ENTITY-RELATIONSHIP DIAGRAM

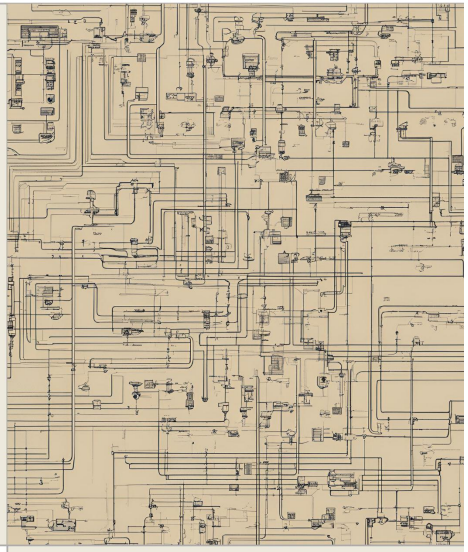
The entity-relationship diagram (ERD) visually represents how data is structured and related. It defines key entities and their relationships:

- Instrument, Category, and Brand: Each instrument belongs to a specific category and brand.
- Inventory: Stores stock levels for each instrument.
- Users: Can be buyers or administrators, managing store operations.
- Receipts and Transaction History: Track sales and purchases with details on quantities and prices.
- Suppliers: Provide instruments to maintain stock availability.



05. RESULTS

The database has been tested using FastAPI methods, allowing efficient interaction through a RESTful API. This enables real-time testing of data operations such as inserting, updating, and retrieving records.
The system improves inventory management by ensuring accurate stock tracking. It also simplifies transaction processing by automatically generating receipts.
The structure is designed to be scalable, supporting future feature integration. Security measures ensure proper user management and data protection.



06. CONCLUSION

This database structure enables efficient store operations, reducing errors and improving workflow. The use of FastAPI ensures a flexible and interactive way to test and expand the system. It provides a strong foundation for future expansions and additional functionalities.