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→ What is Ontigo?←

Ortizo is an online music store, focused on offering a wide range of musical instruments, accessories, and relevant content for musicians. Its online store has as main objective to facilitate the purchase of musical products in an efficient way, offering a personalized and fluid experience for users.

Business model

This is managed and sustained by the sale of instruments and accessories, from which the store obtains a profit for each instrument and accessory sold. This is established when negotiating with suppliers, ensuring competitive prices.

Steps to Create an Entity-Relationship Model

Define Components



Component 1 (High Priority - Most Requested):

- Instruments, Categories, and Brands
- Inventory Management
- Purchase and Sales Receipts
- Suppliers
- Accessories

Component 2 (Low Priority - Additional Features):

- Shopping Cart and Discounts
- Blog and News
- Point of Sale (Physical Store)

Define Entities



- ·Instrument E1
- **·Category E2**
- ·Brand E3
- ·Inventory E4
- •Receipt E5 (Handles both purchase and sales receipts)
- ·History of Receipts E6
- **·User E7 (Administrator or Customer)**
- ·Supplier E8
- ·Accessory E9
- ·Inventory_Receipt E10

Define Atributes per Entity



E1. Instrument

- InstrumentID (PK): Unique identifier for the instrument.
- Name: Name of the instrument.
- Description: Description of the instrument.
- Price: Selling price of the instrument.
- Stock: Available quantity in stock.
- CategoryID (FK): Identifier for the category the instrument belongs to.
- BrandID (FK): Identifier for the brand of the instrument.

E2. Category

- CategoryID (PK): Unique identifier for the category.
- Name: Name of the category (e.g., string instruments, percussion).
- Description: Description of the category.



E3. Brand

- BrandID (PK): Unique identifier for the brand.
- Name: Name of the brand (e.g., Yamaha, Gibson).
- Country: Country where the brand is based.

E4. Inventory

- InventoryID (PK): Unique identifier for the inventory.
- InstrumentID (FK): Identifier for the instrument in the inventory.
- AccessoryID (FK): Identifier for the accessory in the inventory.
- Quantity: Quantity of the instrument in stock.
- DateUpdated: Date when the inventory was last updated.
- InventoryReceiptID (FK): Identifier for the inventory receipt that links to inventory changes.

Define Relationships and Relationships Types



	E1	E2	E3	E4	E5	Еб	E7	E8	E9	E10
E1		X	X	X						
E2	X								X	
E3	X								X	
E4	X								X	X
E5						X	X	X		X
Еб					X					
E7					X					
E8					X					
E9		X	X	X						
E10				X	X					



The types are:

One to One: 1...1

One to Many: 1...n

Many to Many: n...n

E1 n...1 E2 E1 n...1 E3 E1 n...1 E4

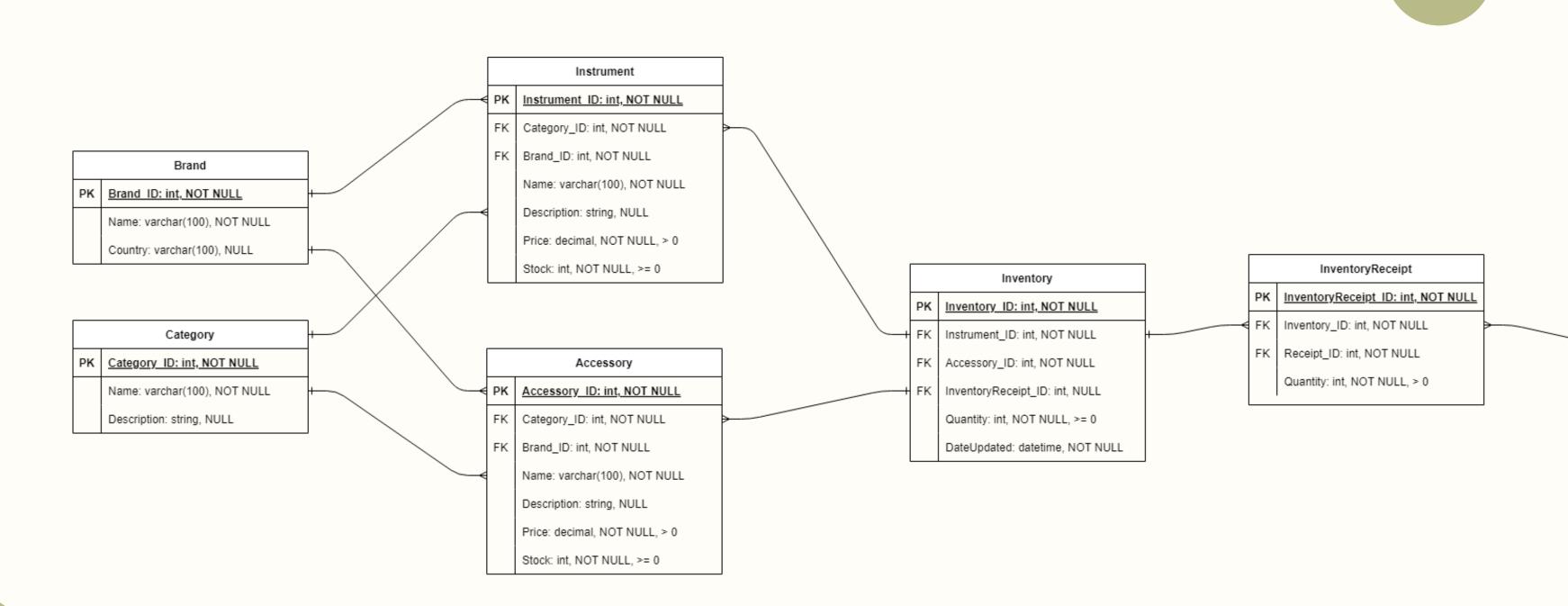
E4 1...n E10 E5 1...n E10

E5 n...1 E6 E5 n... E7 E5 n... E8

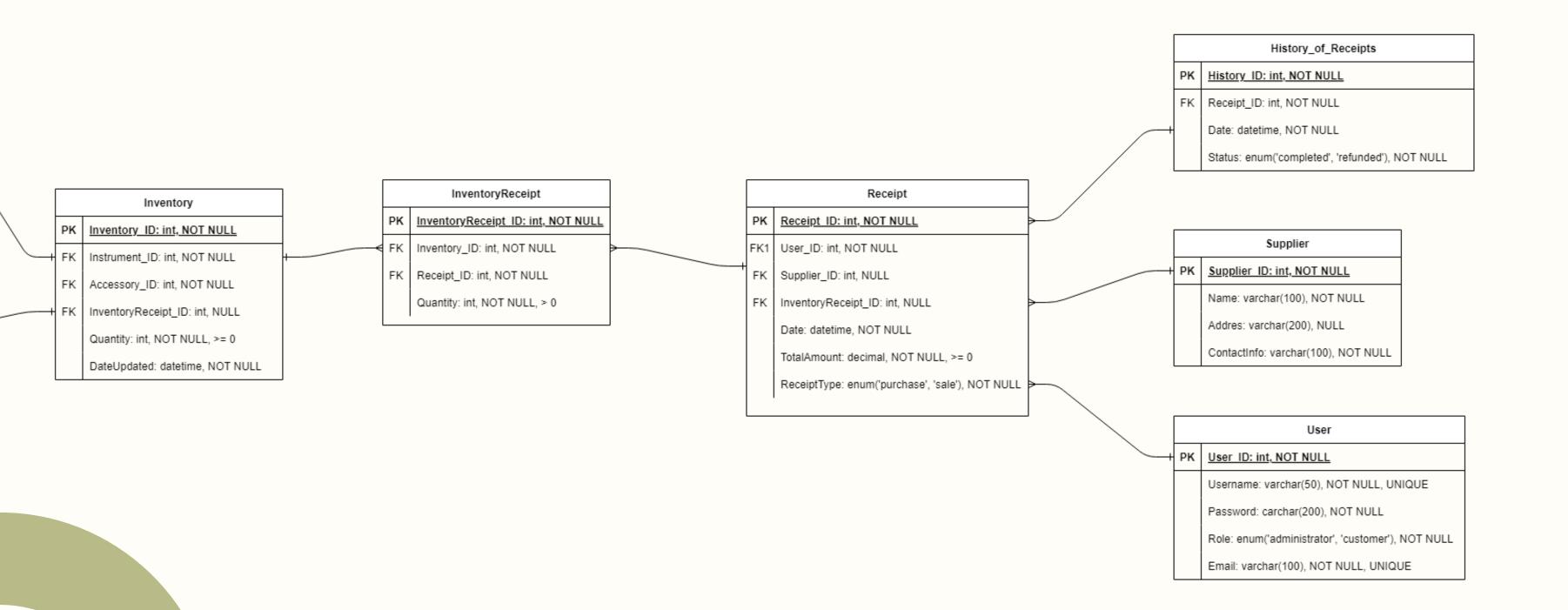
E9 n...1 E2 E9 n...1 E3 E9 n...1 E4

Entity Relationship Model





Entity Relationship Model



Conclusions

• Comprehensive Data Management:

The ER model enables Ortizo to efficiently manage various aspects of the business, such as inventory, suppliers, and transactions, ensuring that all data is interconnected and easy to track.

• Scalability for Future Growth:

With both high-priority (e.g., instruments, inventory management) and low-priority (e.g., blog, discounts, physical store) components in place, Ortizo can scale its operations smoothly, whether expanding its physical store network or enhancing the online shopping experience.

• Enhanced Customer Experience:

By maintaining accurate and real-time data on instruments, accessories, and stock levels, Ortizo can provide customers with an improved shopping experience, offering them up-to-date information and tailored product recommendations.

Integrated Sales and Inventory:

The inclusion of a Point of Sale (POS) system that connects to the central inventory ensures synchronization between online and in-store purchases, reducing errors and streamlining order fulfillment.