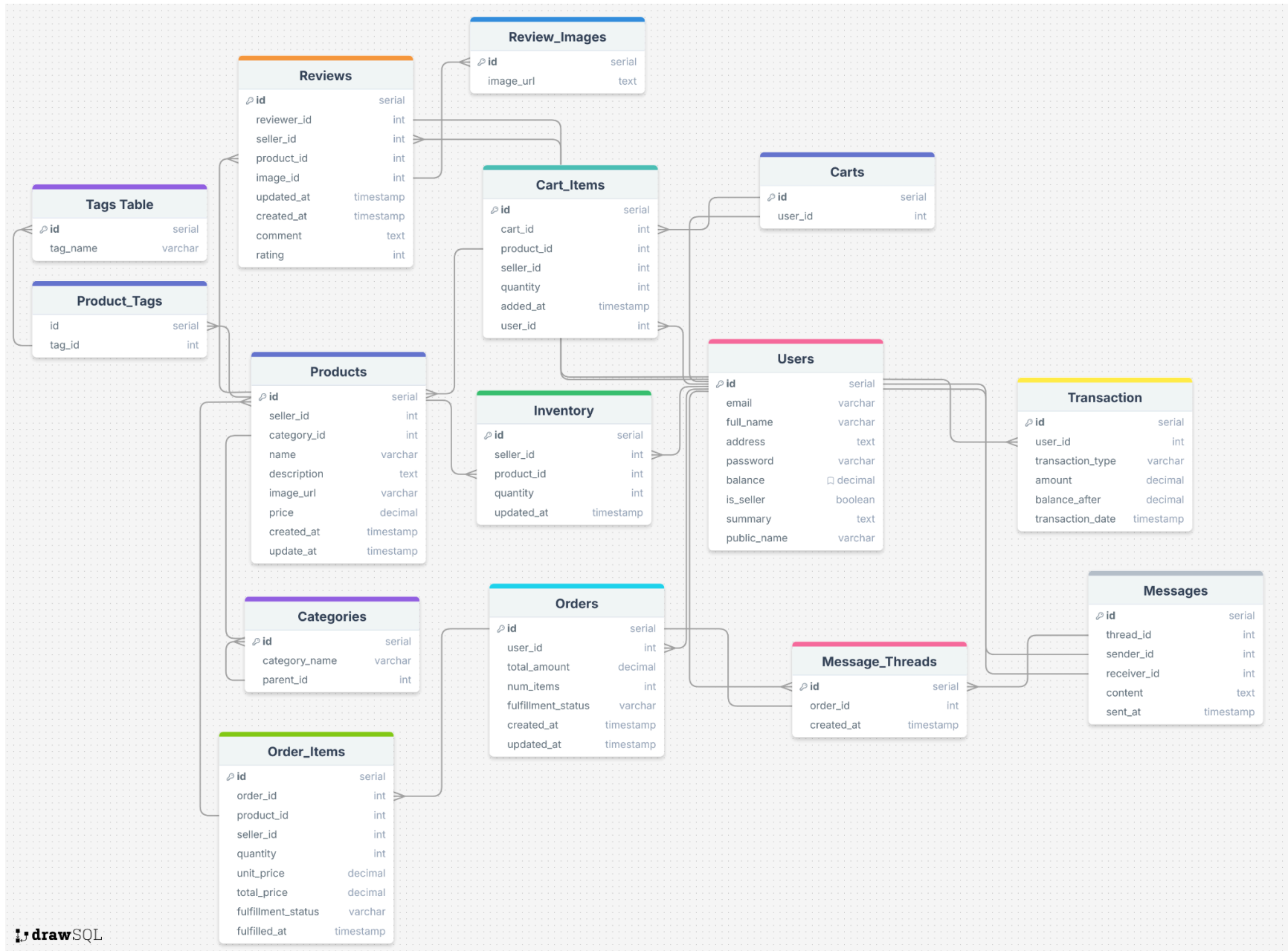


[Github Link](#)



User Table: Stores user account details.

- **Attributes:**
 - user_id (Primary Key), email, full_name, address, password, balance, account_number, public_name, is_seller, summary
- **Constraints:**
 - **Primary Key:** user_id.
 - **Unique Constraint:** email and account_number must be unique across all users.
 - **Not Null Constraints:** All fields except address and summary must be non-null.
 - **Default Value:** balance defaults to 0.00.

Products Table: Stores product details

- **Attributes:**
 - product_id(Primary Key), seller_id, category_id, name, description, image_url, price, created_at, updated_at
- **Constraints:**
 - **Primary Key:** product_id.
 - **Foreign Key:**
 - seller_id, REFERENCES Users(user_id)
 - category_id, REFERENCES Categories(category_id)
 - **Default Value:** created_at and updated_at defaults to current time
 - **Not Null Constraints:** All fields

Categories Table: Stores predefined product categories and Supports hierarchical categories via parent_id for subcategories.

- **Attributes:**
 - category_id (Primary Key), category_name, parent_id (Foreign Key)
- **Constraints:**
 - **Primary Key:** category_id
 - **Foreign Key:**
 - parent_id, REFERENCES Categories(category_id)
 - **Not Null Constraints:** All fields except parent_id

Tags Table: table of tags

- **Attributes:**
 - tag_id (Primary Key), tag_name
- **Constraints:**
 - **Primary Key:** tag_id

- **Unique Constraint:** tag_name

Product_Tags Table: Facilitates a many-to-many relationship between products and tags.

- **Attributes:**
 - product_id, tag_id
- **Constraints:**
 - **Foreign Key:**
 - product_id, REFERENCES Products(product_id)
 - tag_id, REFERENCES Tags(tag_id)
 - **Not Null Constraints:** All fields

Carts Table: Each user has one persistent cart.

- **Attributes:**
 - cart_id (Primary Key), user_id
- **Constraints:**
 - **Primary Key:** cart_id
 - **Foreign Key:**
 - user_id REFERENCES Users(user_id)
 - **Unique Constraint:** user_id
 - **Not Null Constraints:** All fields
 - **Default Value:** created_at defaults to current time

Cart_items Table: Contains items added to a user's cart, linking products and sellers.

- **Attributes:**
 - cart_item_id (Primary Key), cart_id (Foreign Key), product_id (Foreign Key), seller_id (Foreign Key), quantity, added_at
- **Constraints:**
 - **Primary Key:** cart_item_id.
 - **Foreign Key:**
 - cart_id, REFERENCES Carts(cart_id)
 - product_id, REFERENCES Products(product_id)
 - seller_id, REFERENCES Users(user_id)
 - **Value Constraint:** quantity > 0
 - **Default Value:** added_at defaults to current time

Orders Table: Records each purchase made by users.

- **Attributes:**
 - order_id (Primary Key), user_id (Foreign Key), total_amount, num_items, fulfillment_status, created_at, updated_at
- **Constraints:**
 - **Primary Key:** order_id.
 - **Foreign Key:**
 - user_id REFERENCES Users(user_id)
 - **Default Value:** created_at and updated_at defaults to current time

Order_Items Table: Details individual items within an order, including fulfillment status.

- **Attributes:**
 - order_item_id (Primary Key), order_id (Foreign Key), product_id (Foreign Key), seller_id (Foreign Key), quantity, unit_price, total_price, fulfillment_status, fulfilled_at
- **Constraints:**
 - **Primary Key:** order_item_id.
 - **Foreign Key:**
 - order_id, REFERENCES Orders(order_id)
 - seller_id, REFERENCES Users(user_id)
 - product_id, REFERENCES Products(product_id)
 - **Value Constraint:**
 - fulfillment_status, 'Pending', 'Shipped', 'Fulfilled'
 - **Not Null Constraints:** All fields except fulfilled_at

Inventory_Table: Tracks the available quantity of each product per seller.

- **Attributes:**
 - inventory_id (Primary Key), seller_id (Foreign Key), product_id (Foreign Key), quantity, updated_at
- **Constraints:**

- **Primary Key:** inventory_id.
- **Foreign Key:**
 - seller_id, REFERENCES Users(user_id)
 - product_id, REFERENCES Products(product_id)
- **Value Constraint:** quantity > 0
- **Default Value:** updated_at defaults to current time

Transactions Table: Records all balance-related transactions for users.

- **Attributes:**
 - transaction_id (Primary Key), user_id (Foreign Key), transaction_type, amount, balance_after, transaction_date
- **Constraints:**
 - **Primary Key:** transaction_id.
 - **Foreign Key:**
 - user_id, REFERENCES Users(user_id)
 - **Value Constraint**
 - transaction_type: either 'Deposit', or 'Withdrawl'
 - amount > 0
 - **Not Null Constraints:** All fields
 - **Default Value:** transaction_date defaults to current time

Reviews Table: Stores user reviews for products and sellers

- **Attributes:**
 - review_id (Primary Key), seller_id (Foreign Key), reviewer_id (Foreign Key), product_id (Foreign Key), rating, comment, created_at, updated_at
- **Constraints:**
 - **Primary Key:** review_id.
 - **Foreign Key:**
 - seller_id, REFERENCES Users(user_id)
 - reviewer_id , REFERENCES Users(user_id)
 - product_id, REFERENCES Products(product_id)
 - **Value Constraint**

- rating: between 1 and 5
- **Not Null Constraints:** All fields except comment
- **Default Value:** created_at and updated_at defaults to current time

Review_Images Table : Allows users to attach images to their review (multiple images to single product)

- **Attributes:**
 - image_id (Primary Key), review_id (Foreign Key), image_url
- **Constraints:**
 - **Primary Key:** review_id.
 - **Foreign Key:**
 - review_id, REFERENCES Product_Reviews(review_id) OR Seller_Reviews(review_id)
 - **Not Null Constraints:** All fields

Messages Table: Stores individual messages within a message thread.

- **Attributes:**
 - message_id (Primary Key), thread_id (Foreign Key), sender_id (Foreign Key), receiver_id (Foreign Key), content, sent_at
- **Constraints:**
 - **Primary Key:** message_id.
 - **Foreign Key:**
 - thread_id REFERENCES Message_Threads(thread_id)
 - sender_id, REFERENCES Users(user_id)
 - receiver_id, REFERENCES Users(user_id)
 - **Not Null Constraints:** All fields
 - **Default Value:** sent_at defaults to current time

Message_Threads Table: Groups messages related to a specific order between a buyer and a seller.

- **Attributes:**
 - thread_id (Primary Key), order_id (Foreign Key), created_at
- **Constraints:**
 - **Primary Key:** thread_id.
 - **Foreign Key:**
 - order_id, REFERENCES Orders(order_id)
 - **Not Null Constraints:** All fields
 - **Default Value:** created_at defaults to current time