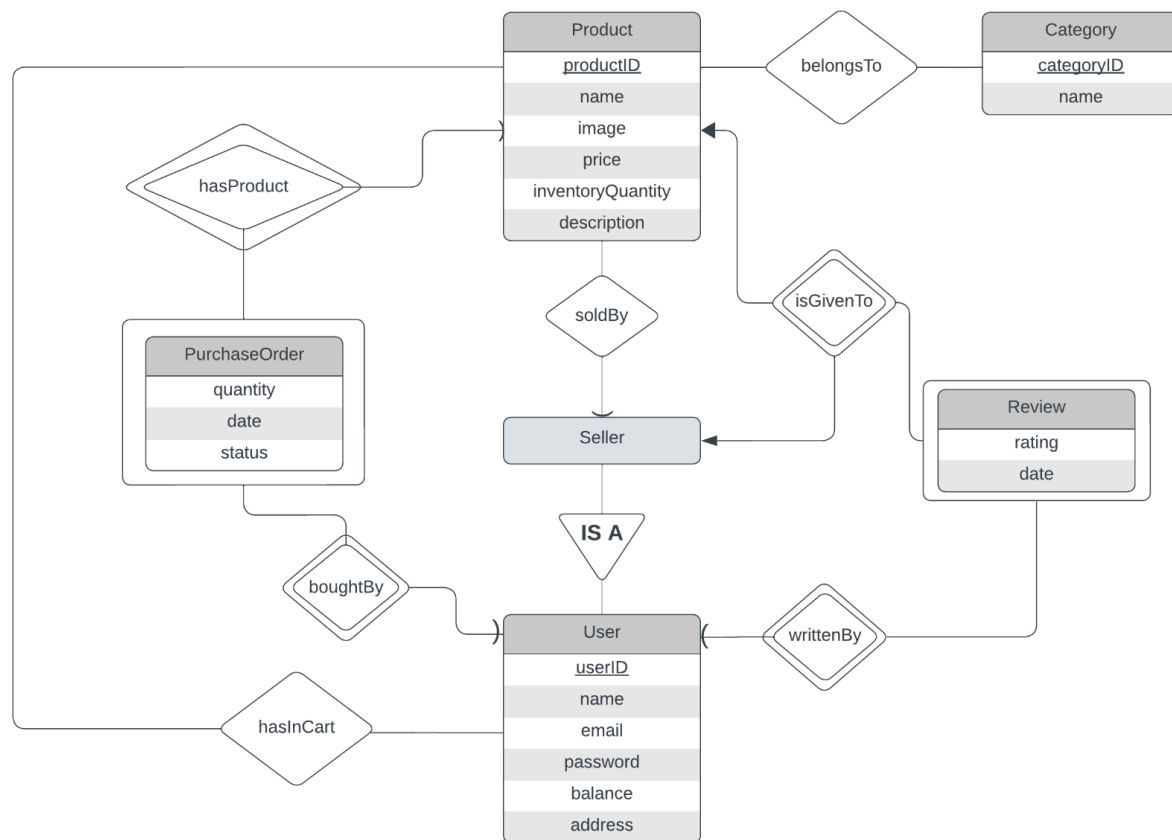


Database design:



Relational Schema:

users(userID, name, email, password, balance, address)

sellers(userID)

categories(categoryID, name)

products(productID, name, image, price, quantity, description)

soldBy(productID, sellerID)

purchaseOrders(userID, productID, quantity, date, status)

reviews(userID, sellerOrProductID, rating, date)

hasInCart(userID, productID)

DBMS Specifications and Assumptions:

Users can only leave reviews after purchasing a product. A review must be given to either a seller or a product, but not both. No product and seller can have the same ID, as it would cause indexing issues in the review system.

A user cannot buy their own products and then review themselves.

Order status is updated upon fulfillment. Once an order is fulfilled, a seller's inventory is decreased by order quantity.

Emails have to be unique (no two users can have the same email)

Purchase quantity must be less than inventory quantity, and price must be less than balance.

When somebody checks out of their cart, each item purchase is considered in their own order, since they might have different sellers.

Page Design:

Home Page:

Presents suggested products, has a link to one's personal account page as well as their cart.

Has a search bar at the top for products, as well as options to look at specific popular categories.

Search Results Page:

Lists products and gives the option to click on product name to access the product page. Allows users to filter by category, price, and rating.

Product Page:

Gives option to add product to cart.

Shows the following:

- Name
- Image
- Description
- Price
- Reviews
- Seller Reviews

User Account Page:

Shows cart (with option to check out), past purchases as well as their respective status. All purchases have an option to review the seller and product. Can click on these options to leave a review.

Shows balance and option to add money to balance.

Shows past reviews.

Shows personal information as well as the option to edit all information.

If the user is a seller, give the option to access their seller page.

Seller Page:

Shows products being sold as well as their stock

Shows orders and specifies if they have been fulfilled or not. Allows seller to change order status to fulfilled

Shows received seller reviews as well product reviews for the seller's products.

Cart Checkout Page:

Shows items, quantity, and total price of cart. Gives option to remove items from cart, as well as purchase items.

Review Page:

Allows users to leave a rating out of five stars for a product or seller. Could potentially be a pop up instead of a whole page.