CSE 305, Principles of Database Systems

Assignment 1

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Description

The tool we used was ERD Plus, located at https://erdplus.com/#/standalone.

Below, we explain some of the decisions we made:

Each user references a shopping cart, which contains a total price of the items within. The taken_items reference the shopping cart that they are in, and are removed from the quantity of the item table. Once a user completes a purchase, a new empty shopping cart is created for the user, and the old one is referenced by an entity in the purchase table.

We separated address into its own table, so that processing it into a Java object would be easier, allowing for more efficient conversion of the address into a string.

We did not make a distinction between merchants and buyers, encompassing both into the user table. We did not think that merchants should be the only ones eligible to sell items, nor should users have to make a new account just to sell an item. All users can sell items, and all users can buy items. Each item just has a reference to the user who is selling it.

We did not store the payment information for each user, although we may do this later depending on how we feel.

Administrator is a table containing the user_id of the user who is the administrator, separated into a different table so that the administrators can have special permissions.

Each item will only have one category, although if this changes, we will update the implementation by having the items have a set of predefined tags that reference the category.
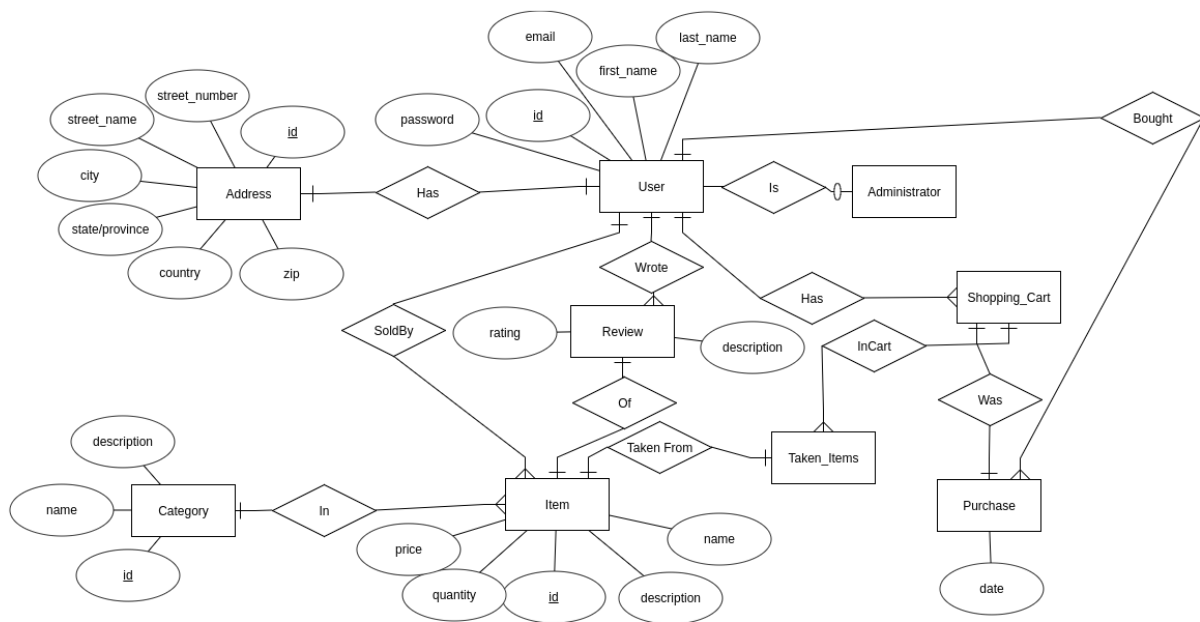
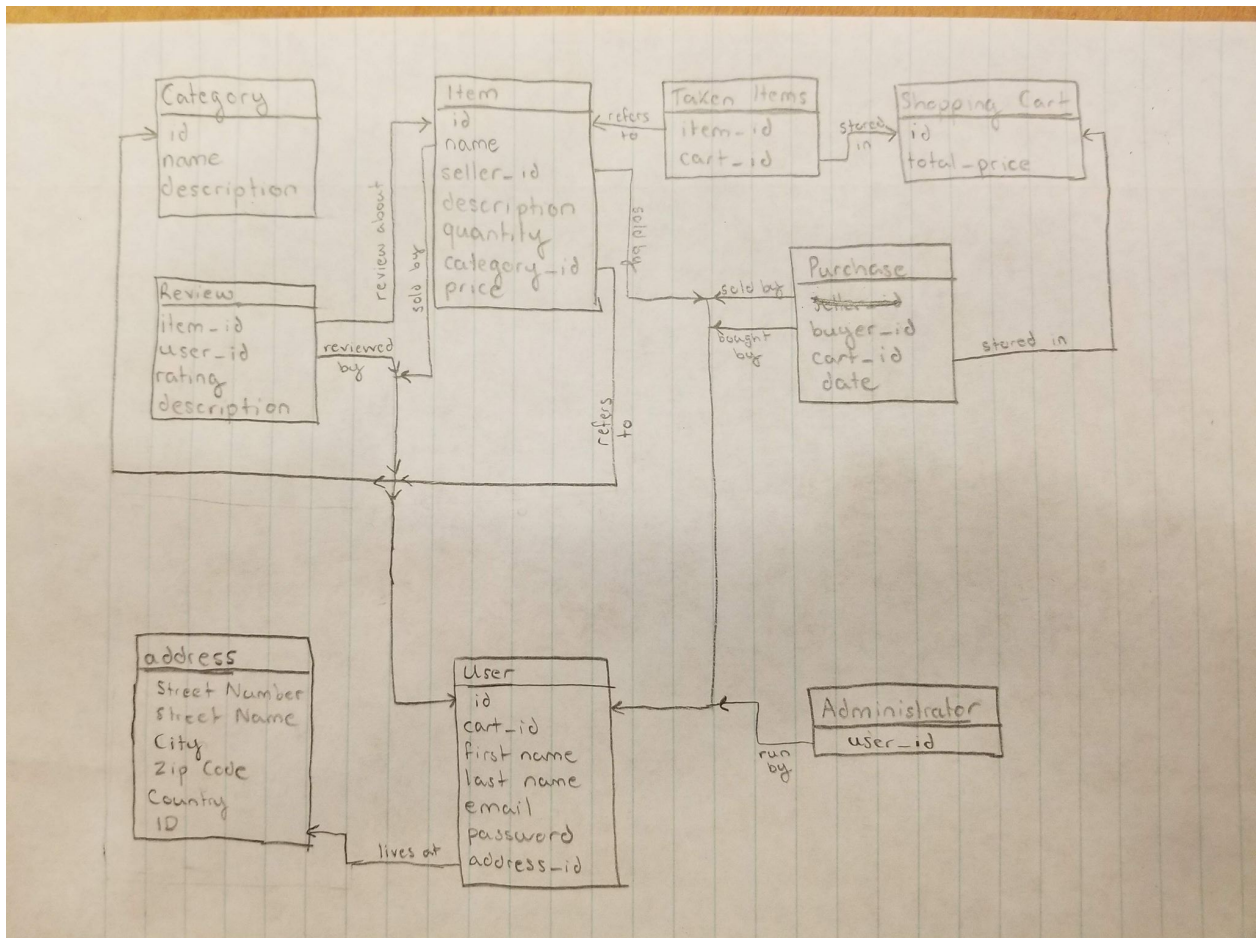Figure 1: Final ER Diagram

Diagrams

Included are the final diagram and the inital paper prototype.

Figure 2: Initial prototype