**Entity Relationship Diagram**

A picture containing text, diagram, plan, technical drawing

Description automatically generated

**ERD and Implementation Explanation**

* First, I analyzed the data well and extracted all attributes from different documents' JSON files.
* Then I assumed it was one relation and normalized it up to 3NF.
* In the above ER diagram, I have Brand, Category, User, Item, and Receipt entities. All entities have their own attributes and primary keys.
* All Entities have relationships with each other. For example:

1. One category has many brands; similarly, one brand can have many categories, so there is a many-to-many relationship.
2. On user can have many Receipts, but a Receipt belongs to one and only one user.
3. One brand can have many items, but an item belongs to only one brand.
4. One receipt can have many Items. Similarly, one Item can be a part of many Receipts.