First Task: Review unstructured JSON data and diagram a new structured relational data model.

We have conducted Exploratory Data Analysis on Receipt, Users, and Brands Data Using Python.
The simplified relational diagram is the next slide has Four main tables:

Transactions: This table stores information about each receipt, Including the receipt ID, the date the receipt was issued, the bonus points earned for the purchase, and the user ID of the person who made the purchase.

Brand: This table stores information about each brand, including the brand ID and code. We have 9 columns and 1168 rows. With null data.

Items: This table stores information about each OID, Bar code, descriptions of the product, the final price of each item, and their individual prices item price along with various information related to the item's dataset. We witnessed lots of data in the items table that needed to be included. Here we are using 36 columns and 6942 rows with repeated data.

Users: This table stores information about each user, including the user ID, state, last login information, etc. The Receipts table and the Brands table are connected via brand and bar codes, allowing us to track sales.

The Users table and the Receipts table are connected via the user ID field, which allows us to track which user made each purchase. More than half of the records are duplicates.