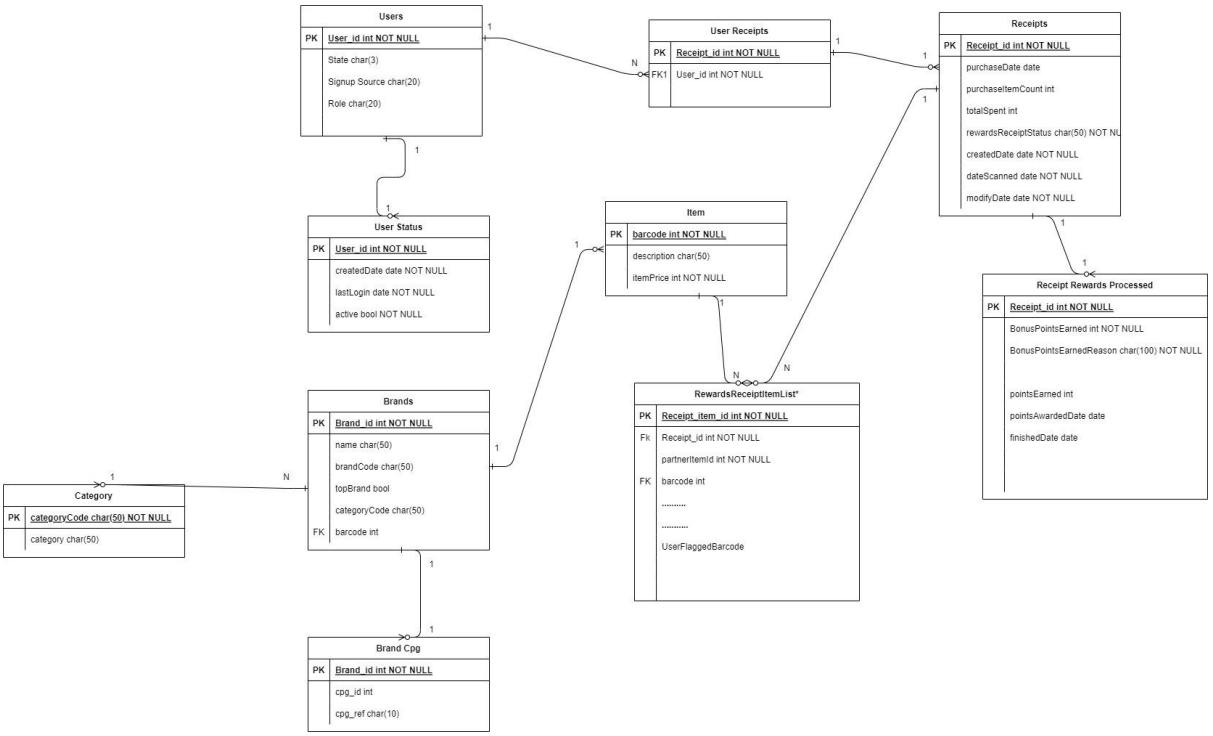
Fetch Rewards Assesment

Entity Relationship Diagram



Note:

1)Table RewardsReceiptItemList : Receipt_Item_Id is a generated primary key established by concatinating Recipt_id,"_","partnerItemId"

2) Table RewardsReceiptItemList can be further split into multiple tables with additional information from database administrator

Eg : a. if needsReview = True , then column needsReviewReason has a value

b. if needsReviewReason = "USER FLAGGED" , then column userFlaggedDescription has a value

Identifying these dependency will help create a better database structure

Strategy Behind developing ER diagram

This ER diagram has been developed based on following principles

1. Followed data normalization principles from 1NF (First Normal Form) to 5NF(Fifth Normal Form)
2. Tables are structured/split to
    a. avoid data redundancy
    b. Fewer places to update
    c. maintain easily

Approaches

1.Users table is split into 2 tables

A. Users (User_id , State , Signup Source , Role)

B. User Status (User_id , createdDate , lastLogin , active)

- This is done the fields in "User Status" undergoes a lot of frequent updates whereas the USERS table can remain unchanged

2. Brands table in split into 3 tables
    A. Brands (Brand_id , barcode, brandCode,topBrand, categoryCode)
    B. Category (categoryCode , category)
    C. CPG (Brand_id , cpg_id, cpg_ref)

3.Receipts table is spirit into 5 tables
    A. User Receipts (Receipt_id , User_id)
    B. Receipts
    C. Receipt Rewards Processed (contains receipt IDs other than status “Submitted”)
    D. RewardsReceiptItemList (contains all the columns inside the original RewardsReceiptItemList except “description”,”itemPrice”)
    E. Item (barcode , description , item_price)

- User Receipts table is developed purely for maintainability