Fetch Rewards Coding Exercise - Part One

The main purpose of a data warehouse is to support analytical queries by storing the data in a column-based database.

Based on the data captured in JSON and their respective attributes, I decided to create a dimensional model of type Snowflake Schema. It consists of one fact table RewardsPoints which is the center point of the database and stores all the numeric facts like PointsEarned, etc, along with Foreign Keys connecting to other tables.

Dimension Tables:

Users Dimension:

Contains details about the users (e.g., _id, state, createdDate, lastLogin).

Helps to analyze points earned based on user demographics and activities.

Brands Dimension:

Contains details about brands (e.g., _id, barcode, brandCode, category).

Allows analysis of points earned per brand and per category.

Receipts Dimension:

Contains details about receipts (e.g., _id, purchaseDate, totalSpent).

Enables detailed analysis of purchase patterns, total spending, and item counts.

The Snowflake Schema Data Model: