Database Design Document: Store Price Tracking Application

Problem Description: (Nouns, Verbs)

In neighborhoods or cities without online platforms, users find it challenging to identify the store selling specific items at the most affordable prices. The solution is to develop a web-based application where users can contribute prices for common items when visiting various stores. The app enables users to view prices per unit for each store, aiding them in making informed decisions about where to shop. The application incorporates crowdsourced price tracking for offline stores.

Rules:

- 1. Each location can have more than one store.
- 2. There are multiple locations.
- Customers can contribute to the list of items.
- 4. Each item is categorized into one category.
- 5. One category can encompass multiple items.
- 6. Each store has at least one location.
- 7. Multiple stores can have the same name but different locations.
- 8. Each item has a specific price in one store.
- 9. Many stores can have the same item with the same/different prices.
- 10. Each store is associated with an expense rating.
- 11. Users can filter items by expense rating, category, specialty, etc.
- 12. A store cannot carry multiple quantities of the same item with different prices.
- 13. The application should track the timestamp of when a price is contributed.
- 14. Users can update the price of an item at a location.
- 15. Stores may or may not have a cultural speciality.

Important Nouns:

User

Contributor

Reviewer

Item

Category

Price

Store

Location

Expense Rating

Cultural Specialty

Crowdsourced

Price Tracking

Important Verbs:

Contribute

View

Discover

Filter

Categorize

Contribute

View

Track geolocation

Assign expense rating

Associate cultural specialty

Contribute prices

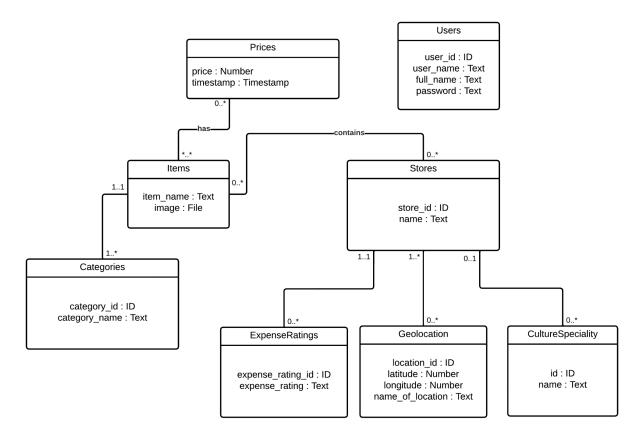
View prices

Record prices

LucidChart Diagram for UML & ERD -

https://lucid.app/lucidchart/9e780024-8e62-4ee2-b3da-6eb836497986/edit?viewport_loc=-554% 2C-961%2C3291%2C1622%2C0_0&invitationId=inv_c3d652b1-1f3a-4206-92a1-5e0b44ae9c4f

UML Diagram:



Item

item_id: integer item_name: string category: string image: binary string

User

user_id: integer user_name: string full_name: string password: string



Price

store: object price: float timestamp: string



Store

store_id: integer store_name: string expense_rating: string geolocation: object culture_specialty: string



Geolocation

geolocation_id: integer latitude: integer longitude: integer name_of_location: Text