Project report

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A passionate programmer, seeking a challenging position in an organization where I can use my talents and skills to grow and expand an organization and me. I'm more focused on solving various problems as much as i can in an efficient manner.

Description:

The objective of the project is to design an web application for a grocery shop. It include two main handles, an Admin section and an User section respectively. Login and authorization must be enforced. Admin should be able to create profiles for various products and categories, should be able to view the summarized aspect of products visually. User should be able search products and add products to their cart to make purchases.

Technologies Used:

- The application is built using python as the core language.
- The Flask package is used for implementing request-response, handling templates,etc.
- HTML and CSS is used for haptic User Interface.
- Sqlite3 database is used in backend storage.

DB Schema Design:

The database consists of four tables which are explained below:

1. Manager_login:
    - manager_user_name (Primary Key)
    - manager_password
    - manager1-managerp [USER NAME AND PASSWORD for manager login]
2. User_login:
    - user_name (Primary Key)
    - user_password
    - user1-userp [USER NAME AND PASSWORD for user login]

The above two tables are used to store login credentials of of ADMIN and USER

3. Category:
    - category_id (Primary Key, Auto-Increment)
    - category_name (Unique)
    - category_image

A Category only consist of name and a logo, since it is an superset to the products.

4. Product:
    - product_id (Primary Key, Auto-Increment)
    - product_name (Unique)
    - product_unit (Not-Null)
    - product_price (Not-Null)
    - product_availability (Not-Null)
    - product_image
    - product_category (Foreign Key references Category("category_id"))

Each product comes under an specific category, which is mapped through the last column. The remaining columns capture the basic details of a product such as name, unit of measure, price, stock available, logo, etc.

Architectures and Features:

The detailed architecture and features are explained below:

- The sections of Manager and User are handled separately right from individual logins.
- Manager:
  - The Manager dashboard displays the category and the products under each.
  - Adding a new category is enlisted at the top right corner, after which a new product can be added under the category.
  - Creation of products is dynamically updated in the display panel.
  - Details of each product can be viewed, edit and deleted by clicking on the product which is exposed as a clickable button.
  - Edit and deletion of category is present at the bottom of each category, where if a particular category with products registered is deleted, the products under them will be also be deleted.
  - There is confirmation page added to get secondary confirmation to delete and entity.
  - In the top navigation bar, the “summary” button redirects to the page which contains visual representation of Availability of Products and Price of Products for each category.
- User:
  - The User dashboard displays the list of products under each category that is available to purchase.
  - Each product has a checkbox named “Buy” which marks the products to add in cart with the quantity entered by the user beside it.
  - The maximum stock available is enforced in the input tab where user cannot enter value beyond the available stock.
  - The Add Products to Cart button adds the selected products to cart, and it can be viewed through the Cart button in the navigation panel.
  - The cart contains the detailed purchase summary and price to be paid, user can edit the quantity in this page to their need which dynamically refreshes the bill accordingly.
  - Upon clicking the Buy button, the transaction will be complete and the stocks will be deducted.
- Additional CSS features for a clean UI is implemented.

Presentation Video Link:

https://drive.google.com/file/d/18JyT6Gr3ynm_vKyvnk-fLkTBkLDCEHy7/view?usp=sharing