

Project Description

Project Title: Grocery Store Management System

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The Grocery Store Management System is a command-line-based application designed to streamline and enhance the shopping experience at a local grocery store. It provides customers with an easy-to-use interface to select and purchase grocery and non-grocery items, calculate discounts based on various factors, and manage coupons and customer categories.

Key Features:

1. **Item Selection:** A customer can choose from a variety of grocery and non-grocery items available in the store.
2. **Item Details:** For each selected item, the system provides details such as item type, cost per unit, and discounts (based on number of days left) .
3. **Discount Calculation:** The application calculates discounts based on the type of item (grocery or non-grocery) and the number of days left for the item's expiry. For grocery items, discounts are applied based on the expiry date:
 4. 20% discount if 4 to 7 days left 50% discount if 2 to 3 days are left 70% discount if 1 day or less are left
 - For non-grocery items, discounts are applied differently:
 5. 20% discount if 11 to 30 days left 50% discount if 3 to 10 days are left 70% discount if 2 days or less are left
6. **Coupon Discounts:** Customers can apply additional coupons discounts to their purchases by entering a valid coupon ID. The system retrieves the coupon discount percentage from the database and applies it to the total cost.
7. **Customer Categories:** Customers can choose their category, such as shop manager, shop staff, or normal customer. Different categories receive different discounts on their total purchase amount.
8. **Final Cost:** The application calculates and displays the final cost of the selected items after applying all discounts and coupons.

Technology stack:

- **Programming language:** Python3
- **Database:** SQL(Structured Query Language)
- **Database Connector:** (workbench) MySQL.
- **User Interface:** Command Line Interface
- Proper handling with exception cases.

Usage instructions:

1. Run the application on your linux shell.
2. Choose between grocery items or non-grocery items.
3. Select the items to purchase.
4. Enter the quantity of each item in units.
5. Apply coupon discounts if available.
6. Choose your customer category.
7. View the final cost after all discounts.

Project advantages:

- Simplifies the shopping process for customers.
- Ensures accurate discount calculations based on item type and expiry date.
- Allows for the easy management of coupons and customer categories.
- Provides a user-friendly interface for both customers and store staff.

The Grocery Store Management System aims to enhance the efficiency and convenience of shopping at a local grocery store while ensuring that customers receive the best discounts available.

***Note**

For this project mySQL Workbench was used. SQL code has been provided for all tables in one file along with screenshots (as a proof of concept) for the successful working of the project.