MyCartApp Documentation

The `MyCartApp` is a command-line interface (CLI) application that simulates a shopping cart functionality. It allows users to view and add products to their cart, remove products, generate a bill, and store the bill details in a MySQL database.

Classes

Product

- Represents a product available for purchase.

- Attributes:

  - `id`: Unique identifier of the product.

  - `name`: Name of the product.

  - `price`: Price of the product.

Category

- Represents a category of products.

- Attributes:

  - `id`: Unique identifier of the category.

  - `name`: Name of the category.

  - `products`: List of products in the category.

Cart

- Represents a user's shopping cart.

- Attributes:

  - `items`: List of items in the cart.

- Methods:

  - `add_item(product, quantity)`: Adds a product to the cart with the specified quantity.

  - `remove_item(index)`: Removes an item from the cart at the specified index.

  - `calculate_total()`: Calculates the total amount of the items in the cart.

- `generate_bill(discount)`: Generates a bill based on the cart items and applies a discount if applicable.

MyCartApp

- Represents the main application.

- Attributes:

  - `categories`: List of categories.

  - `cart`: The user's shopping cart.

- Methods:

  - `add_category(category)`: Adds a category to the app.

  - `find_category(category_id)`: Finds a category based on the category ID.

  - `display_categories()`: Displays the available categories.

  - `display_products(category_id)`: Displays the products in a specific category.

  - `display_product_details(product_id)`: Displays the details of a specific product.

  - `add_product_to_cart(product_id, quantity)`: Adds a product to the cart with the specified quantity.

  - `remove_product_from_cart(index)`: Removes an item from the cart at the specified index.

  - `buy_products()`: Generates a bill for the cart and stores the bill details in the database.

Usage

1. Establish a connection to the MySQL database by providing the necessary credentials.

2. Create an instance of the `MyCartApp` class.

3. Retrieve categories and products from the database.

4. Add the retrieved categories and products to the app.

5. Display the available categories and allow the user to select a category.

6. Display the products in the selected category.

7. Allow the user to view the details of a specific product.

8. Allow the user to add products to the cart by specifying the product ID and quantity.

9. Display the cart items.

10. Allow the user to remove a product from the cart by specifying the index.

11. Generate the bill for the cart and display the bill details.

12. Close the MySQL connection.

ER DIAGRAM

PRODUCT

P_id
P_price
P_name
C_id

CATEGORIES

C_id
Name

BILL

Id
Total_Amount
Discount_Amt
Final_Amt

C-id Name. P.ID P_Price

P.Name

Categories — has — Product

Cat id.

add

Amount

done

B_id — Bill   MyCart — quantity

has   Cart_id

discount

dis_Amount.

ER diagram my Cart.