**Kmiha Shopping App**

**Overview**

Kmiha Shopping App is a Java-based e-commerce application that allows users to browse products, add items to their cart and wishlist, place orders, and interact with the support team. The application follows an object-oriented design for code organization and employs a console-based user interface.

**Design Decisions**

Class Hierarchy:

The application is structured around the following key classes:

1. **App:**
   * Represents the menu of the application and manages user interaction
   * Utilizes various other classes for user management (**Customer**, **Admin**), product representation (**Product**, **ElectronicProduct**, **MakeupProduct**), and payment processing (**PaymentStrategy**, **PaymentContext**).
2. **Customer:**
   * Represents a customer with methods for managing wishlists, carts, and orders.
3. **Admin:**
   * Represents an administrator with additional privileges for managing products and responding to customer messages.
4. **Product:**
   * Represents a generic product with common attributes such as name, description, price, and quantity.
   * Utilized as a base class for specific product types (**ElectronicProduct**, **MakeupProduct**) to showcase polymorphism.
5. **Orders\_list**:

* Represents a list of **Order**

1. **PayPalPayment and CreditCard :**
   * 2 classes that implement PaymentStrategie
   * They simulate a basic transaction with 80% success rate
2. **Data :**
   * Represents the data base of the app
3. **Items :**
   * Represents the inventory of the products

Encapsulation:

* Data within classes is encapsulated using private access modifiers.
* Access to class fields is controlled through getters and setters, maintaining data
* Polymorphism:
* Polymorphism is demonstrated in the **Product** class hierarchy. Each specific product type inherits from the generic **Product** class and overrides common methods.

**User Interface**

* The application utilizes a console-based user interface with interactive menus for seamless user interaction.
* Menus are organized into dedicated methods (**home\_menu()**, **product\_menu()**, etc.) for improved code structure.

**How to Run the Application**

1. **Requirements:**
   * Java Development Kit (JDK) installed on your machine.
2. **Run the Application:**
   * Compile and run the **Main** class.
   * Follow the on-screen prompts to navigate through the application.

**Additional features :**

1. **Contact support team :**

**.** the Customer can send a message  through the application and any of the admins

Can respond to him.

. the Customer recives the response as soon as he log out then log in

1. A wishlist :

. a list of products that the Customer entends to buy later 4

Note : 1- to access as an admin log in with user Name =admin and password =admin 😊

2- there are few product in sale you can add some when you log in as an admin