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import java.util.Random;
import java.util.Scanner;
```

```
class Product {
    String name;
    double price;
    int quantity; // For cart use
    // Constructor
    Product(String name, double price) {
        this.name = name;
        this.price = price;
        this.quantity = 0;
    }
    // Add to cart
    void addToCart() {
        quantity++;
    }
    // Calculate total price for this product in cart
    double getTotalPrice() {
        return price * quantity;
    }
};
```

```
class UserAccount {
    String userId;
    double balance;
    // Constructor now accepts a fixed userId
    UserAccount(String userId, double balance) {
        this.userId = userId;
        this.balance = balance;
    }
    // Deduct amount from balance
    boolean deduct(double amount) {
        if (balance >= amount) {
            balance -= amount;
            return true;
        } else {
            return false;
        }
    }
}
```

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    }
}
//OTP Service
class OTPService {
static String generateOTP() {
    Random rand = new Random();
    int otp = 100000 + rand.nextInt(900000);
    return String.valueOf(otp);
}
static void sendOTP(String phoneNumber, String otp) {
    System.out.println("\nSending OTP to " + phoneNumber + "...");
    System.out.println("Your OTP is: " + otp);
}
static boolean verifyOTP(Scanner sc) {
    System.out.print("Enter your phone number: ");
    String phone = sc.next();
    String otp = generateOTP();
    sendOTP(phone, otp);
    System.out.print("Enter the OTP you received: ");
    String userOtp = sc.next();
    return userOtp.equals(otp);
}
};

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public class NewPractice {
    public static void main(String[] args) {

        Scanner sc= new Scanner(System.in);

        UserAccount user = new UserAccount("USER1001", 5000);

        Product[] products = {
            new Product("Lipstik", 500),
            new Product("Perfume", 1300),
            new Product("Face powder", 300),
            new Product("Skin care set", 3000)
        };
        int choice;
        do {
            System.out.println("\n=== Simple E-Commerce System ===");

```

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System.out.println("1. View Products");
System.out.println("2. Add to Cart");
System.out.println("3. View Cart");
System.out.println("4. Checkout ");
System.out.println("5. Exit");
System.out.print("Enter your choice: ");
choice = sc.nextInt();
switch (choice) {
    case 1:
        // Show products
        System.out.println("\nAvailable Products:");
        for (int i = 0; i < products.length; i++) {
            System.out.println((i + 1) + ". " + products[i].name + " - P" +
products[i].price);
        }
        break;
    case 2:
        // Add product to cart
        System.out.println("User ID: " + user.userId + " | 💰 Balance: P" +
user.balance);

System.out.println("::=====PRODUCTS=====:: ");
        System.out.println("|| 1.Lipstik      = P500      || ");
        System.out.println("||                          || ");
        System.out.println("|| 2.Perfume      = P1300      || ");
        System.out.println("||                          || ");
        System.out.println("|| 3.Face Powder  = 300        || ");
        System.out.println("||                          || ");
        System.out.println("|| 4.Skin Care Set = P500      || ");

System.out.println("::=====:: ");
        System.out.print("\nEnter product number to add: ");
        int productNum = sc.nextInt();

        if (productNum <= products.length) {
            //gets the correct product object (since arrays start at 0).

            products[productNum - 1].addToCart(); // to start from 1 insted of
zero

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        System.out.println(products[productNum - 1].name + " added to
cart");
    } else {
        System.out.println("Invalid product number.");
    }
    break;
case 3:
    // View cart
    System.out.println("\nYour Cart:");
    boolean empty = true; //Assume the cart is empty until we find items

    //for each loop = to check inside the product one by one
    for (Product p : products) {
        //If the quantity of this product is greater than 0, ibig sabihin nag
add si user sa cart
        if (p.quantity > 0) {
            System.out.println(p.name + " " + p.quantity + "x" + " = P" +
p.getTotalPrice());
            empty = false; //if there is at least one product was found, we
set empty = false. means merong laman
        }
    }
    //kung ito ay empty
    if (empty) {
        System.out.println("Cart is empty.");
    }
    break;

case 4: // Checkout
    double total = 0;
    System.out.println("\nCheckout:");
    for (Product p : products) {
        if (p.quantity > 0) {
            System.out.println(p.name + " x " + p.quantity + " = P" +
p.getTotalPrice());
            total += p.getTotalPrice();
        }
    }
    if (total == 0) {
        System.out.println("Your cart is empty!");
    }

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        break;
    }
    System.out.println("Total: P" + total);
    if (OTPService.verifyOTP(sc)) {
        if (user.deduct(total)) {
            System.out.println(" Payment successful!");
            System.out.println(" Remaining Balance: P" + user.balance);
            for (Product p : products) p.quantity = 0; // clear cart
        } else {
            System.out.println(" Not enough balance to checkout.");
        }
    } else {
        System.out.println("Invalid OTP. Transaction failed!");
    }
    break;

    case 5: System.out.println("exiting....");
    System.out.println("Thank you");
}

} while (choice != 0);
sc.close();

}
}

```