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Div: B

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Batch: [B-2]

Assignment Number :10

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
class CardPaymentStrategy implements PaymentStrategy { // Renamed CreditCardStrategy  
to CardPaymentStrategy
```

```
    private String cardHolderName;
```

```
    private String cardNumber;
```

```
    private String securityCode;
```

```
    private String expirationDate;
```

```
    public CardPaymentStrategy(String name, String cardNumber, String cvv, String  
expiryDate) {
```

```
        this.cardHolderName = name;
```

```
        this.cardNumber = cardNumber;
```

```
        this.securityCode = cvv;
```

```
        this.expirationDate = expiryDate;
```

```
    }
```

```
@Override
```

```
public void pay(int amount) {
```

```
    System.out.println(amount + " paid with card (" + cardHolderName + ")");
```

```
}
```

```
}
```

```
// Item.java
```

```
class Product { // Renamed Item to Product
```

```
    private String productCode;
```

```
    private int price;
```

```
    public Product(String code, int cost) {
```

```
        this.productCode = code;
```

```
        this.price = cost;
```

```
}
```

```

    public String getProductCode() {
        return productCode;
    }

    public int getPrice() {
        return price;
    }
}

interface PaymentStrategy {
    public void pay(int amount);
}

// PaypalStrategy.java
class PaypalPaymentStrategy implements PaymentStrategy { // Renamed PaypalStrategy
to PaypalPaymentStrategy
    private String email;
    private String password;

    public PaypalPaymentStrategy(String email, String pwd) {
        this.email = email;
        this.password = pwd;
    }

    @Override
    public void pay(int amount) {
        System.out.println(amount + " paid using PayPal (" + email + ")");
    }
}

// ShoppingCart.java
class Cart { // Renamed ShoppingCart to Cart
    // List of products
    private List<Product> products;

    public Cart() {
        this.products = new ArrayList<>();
    }

    public void addProduct(Product product) { // Renamed addItem to addProduct
        this.products.add(product);
    }
}

```

```

    public void removeProduct(Product product) { // Renamed removeItem to
removeProduct
        this.products.remove(product);
    }

    public int calculateTotal() {
        int sum = 0;
        for (Product product : products) {
            sum += product.getPrice();
        }
        return sum;
    }

    public void pay(PaymentStrategy paymentMethod) {
        int totalAmount = calculateTotal();
        paymentMethod.pay(totalAmount);
    }
}

// ShoppingCartTest.java
class CartTest { // Renamed ShoppingCartTest to CartTest
    public static void main(String[] args) {
        Cart cart = new Cart();

        Product product1 = new Product("1234", 60);
        Product product2 = new Product("5678", 40);

        cart.addProduct(product1);
        cart.addProduct(product2);

        // Pay by PayPal
        cart.pay(new PaypalPaymentStrategy("rohit@gmail.com", "password123"));

        // Pay by card
        cart.pay(new CardPaymentStrategy("Rohit Devikar", "1234567890123456", "786",
"12/25"));
    }
}

```

Output:

```

100 paid using PayPal (rohit@gmail.com)
100 paid with card (Rohit Devikar)

```