

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

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

```
// Item class
```

```
public class Item {
```

```
    private String upcCode;
```

```
    private int price;
```

```
    public Item(String upc, int cost) {
```

```
        this.upcCode = upc;
```

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

```
    }
```

```
    public String getUpcCode() {
```

```
        return upcCode;
```

```
    }
```

```
    public int getPrice() {
```

```
        return price;
```

```
    }
```

```
}
```

```
// PaymentStrategy interface
```

```
public interface PaymentStrategy {
```

```
    void pay(int amount);
```

```
}
```

```
// PaypalStrategy class
```

```
public class PaypalStrategy implements PaymentStrategy {
```

```
    private String emailId;
```

```
    private String password;
```

```

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

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

// CreditCardStrategy class
public class CreditCardStrategy implements PaymentStrategy {
    private String name;
    private String cardNumber;
    private String cvv;
    private String dateOfExpiry;

    public CreditCardStrategy(String nm, String ccNum, String cvv, String expiryDate) {
        this.name = nm;
        this.cardNumber = ccNum;
        this.cvv = cvv;
        this.dateOfExpiry = expiryDate;
    }

    @Override
    public void pay(int amount) {
        System.out.println(amount + " paid with credit/debit card.");
    }
}

```

```
// BitcoinStrategy class

public class BitcoinStrategy implements PaymentStrategy {

    private String bitcoinAddress;

    public BitcoinStrategy(String bitcoinAddress) {

        this.bitcoinAddress = bitcoinAddress;

    }

    @Override

    public void pay(int amount) {

        System.out.println(amount + " paid using Bitcoin to address: " + bitcoinAddress);

    }

}
```

```
// ShoppingCart class

public class ShoppingCart {

    // List of items

    List<Item> items;

    public ShoppingCart() {

        this.items = new ArrayList<Item>();

    }

    public void addItem(Item item) {

        this.items.add(item);

    }

    public void removeItem(Item item) {

        this.items.remove(item);

    }

}
```

```
public int calculateTotal() {  
    int sum = 0;  
    for (Item item : items) {  
        sum += item.getPrice();  
    }  
    return sum;  
}
```

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

// ShoppingCartTest class

```
public class ShoppingCartTest {  
    public static void main(String[] args) {  
        ShoppingCart cart = new ShoppingCart();  
  
        Item item1 = new Item("1234", 60);  
        Item item2 = new Item("5678", 40);  
  
        cart.addItem(item1);  
        cart.addItem(item2);  
  
        // Pay by PayPal  
        cart.pay(new PaypalStrategy("myemail@example.com", "pwd"));  
  
        // Pay by Credit Card  
        cart.pay(new CreditCardStrategy("Aparna Bindage", "1234567890123456", "786", "12/15"));  
    }  
}
```

```
// Pay by Bitcoin  
cart.pay(new BitcoinStrategy("1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa"));  
}  
}
```

Output:

100 paid using PayPal.

100 paid with credit/debit card.

100 paid using Bitcoin to address: 1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa