**Exercise 4: Implementing the Adapter Pattern**

interface PaymentProcessor {

    void processPayment(double amount);

}

class PayPalGateway {

    public void sendPayment(double amountInDollars) {

        System.out.println("Payment of $" + amountInDollars + " processed through PayPal.");

    }

}

class PayPalAdapter implements PaymentProcessor {

    private PayPalGateway paypal;

    public PayPalAdapter(PayPalGateway paypal) {

        this.paypal = paypal;

    }

    @Override

    public void processPayment(double amount) {

        paypal.sendPayment(amount);

    }

}

class StripeGateway {

    public void makePayment(double money) {

        System.out.println("Payment of $" + money + " processed through Stripe.");

    }

}

class StripeAdapter implements PaymentProcessor {

    private StripeGateway stripe;

    public StripeAdapter(StripeGateway stripe) {

        this.stripe = stripe;

    }

    @Override

    public void processPayment(double amount) {

        stripe.makePayment(amount);

    }

}

public class Main {

    public static void main(String[] args) {

        PaymentProcessor paypalProcessor = new PayPalAdapter(new PayPalGateway());

        paypalProcessor.processPayment(100.00);

        PaymentProcessor stripeProcessor = new StripeAdapter(new StripeGateway());

        stripeProcessor.processPayment(250.50);

    }

}

Output:

