**Exercise 4: Implementing the Adapter Pattern**

**SourceCode:**

**PaymentProcessor.java**

public interface PaymentProcessor {

void processPayment(double amount);

}

**StripeGateway.java**

public class StripeGateway {

public void makeCharge(double amountUSD) {

System.out.println("Stripe processed $" + amountUSD);

}

}

**RazorpayGateway.java**

public class RazorpayGateway {

public void payInr(int paise) {

System.out.println("Razorpay processed ₹" + (paise / 100.0));

}

}

**StripeAdapter.java**

public class StripeAdapter implements PaymentProcessor {

private final StripeGateway stripe = new StripeGateway();

public void processPayment(double amount) {

stripe.makeCharge(amount);

}

}

**RazorpayAdapter.java**

public class RazorpayAdapter implements PaymentProcessor {

private final RazorpayGateway razor = new RazorpayGateway();

public void processPayment(double amount) {

razor.payInr((int) Math.round(amount \* 100));

}

}

**PaymentDemo.java**

public class PaymentDemo {

public static void main(String[] args) {

PaymentProcessor stripe = new StripeAdapter();

PaymentProcessor razorpay = new RazorpayAdapter();

stripe.processPayment(150.75);

razorpay.processPayment(999.99);

}

}

**Output:**

**A screenshot of a computer

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