public class CreditCard {

// Instance variables

private String cardHolder;

private String cardNumber;

private double balance;

private double creditLimit;

// Constructor to initialize the variables

public CreditCard(String cardHolder, String cardNumber, double creditLimit) {

this.cardHolder = cardHolder;

this.cardNumber = cardNumber;

this.balance = 0.0; // Balance starts at 0

this.creditLimit = creditLimit;

}

// Getter and Setter for balance

public double getBalance() {

return balance;

}

public void setBalance(double balance) {

this.balance = balance;

}

// Getter for credit limit

public double getCreditLimit() {

return creditLimit;

}

// Method to update the credit limit

public void updateCreditLimit(double newLimit) {

if (newLimit >= balance) {

this.creditLimit = newLimit;

System.out.println("Credit limit updated to: $" + newLimit);

} else {

System.out.println("New limit cannot be less than the current balance.");

}

}

// Method to charge a purchase to the card

public void makePurchase(double amount) {

if (amount <= (creditLimit - balance) && amount > 0) {

balance += amount;

System.out.println("Purchase of $" + amount + " successful. New balance: $" + balance);

} else {

System.out.println("Invalid purchase amount or insufficient credit.");

}

}

// Method to make a payment

public void makePayment(double amount) {

if (amount < 0) {

System.out.println("Payment amount cannot be negative. Request ignored.");

return;

}

if (amount <= balance) {

balance -= amount;

System.out.println("Payment of $" + amount + " successful. New balance: $" + balance);

} else {

System.out.println("Payment amount exceeds balance.");

}

}

// Method to display the card details

public void displayCardDetails() {

System.out.println("Cardholder: " + cardHolder);

System.out.println("Card Number: " + cardNumber);

System.out.println("Balance: $" + balance);

System.out.println("Credit Limit: $" + creditLimit);

}

// Main method for testing

public static void main(String[] args) {

// Create a CreditCard object

CreditCard card = new CreditCard("John Doe", "1234-5678-9876-5432", 5000);

// Display initial card details

card.displayCardDetails();

// Make a valid purchase

card.makePurchase(1000);

// Attempt to make a valid payment

card.makePayment(500);

// Attempt to make a negative payment

card.makePayment(-200);

// Display final card details

card.displayCardDetails();

}

}

**Changes and Explanation:**

1. **Added a check in makePayment method:**
   * If amount < 0, it prints "Payment amount cannot be negative. Request ignored." and exits the method.
   * This ensures that no negative payments are processed.
2. **Validations for makePurchase:**
   * Ensures purchase amount is positive.
   * Ensures available credit is sufficient.
3. **Example Output:**

Cardholder: John Doe

Card Number: 1234-5678-9876-5432

Balance: $0.0

Credit Limit: $5000.0

Purchase of $1000.0 successful. New balance: $1000.0

Payment of $500.0 successful. New balance: $500.0

Payment amount cannot be negative. Request ignored.

Cardholder: John Doe

Card Number: 1234-5678-9876-5432

Balance: $500.0

Credit Limit: $5000.0