```
import java.awt.*;
import java.awt.event.*;
import java.time.LocalDateTime;
import java.util.UUID;
class Transaction {
  private String transactionId;
  private double amount;
  private String cardNumber;
  private LocalDateTime timestamp;
  private boolean suspicious;
  public Transaction(double amount, String cardNumber) {
    this.transactionId = UUID.randomUUID().toString();
    this.amount = amount;
    this.cardNumber = cardNumber;
    this.timestamp = LocalDateTime.now();
    this.suspicious = isCardNumberInvalid(cardNumber) || amount > 50000;
  }
  private boolean isCardNumberInvalid(String cardNumber) {
    return cardNumber.length() != 16 || !cardNumber.matches("\\d{16}");
  }
  public String getTransactionId() {
    return transactionId;
  }
  public double getAmount() {
    return amount;
  }
 public String getCardNumber() {
    return cardNumber;
  }
  public LocalDateTime getTimestamp() {
```

```
return timestamp;
  }
  public boolean isSuspicious() {
    return suspicious;
  @Override
  public String toString() {
    return "Transaction ID: " + transactionId +
        "\nAmount: " + amount +
        "\nCard Number: " + cardNumber +
        "\nTimestamp: " + timestamp +
        "\nSuspicious: " + suspicious;
 }
}
public class Main extends Frame {
  private TextField amountField;
  private TextField cardNumberField;
  private TextArea resultArea;
  public Main() {
    setLayout(new FlowLayout());
    Label amountLabel = new Label("Amount:");
    amountField = new TextField(20);
    Label cardNumberLabel = new Label("Card Number:");
    cardNumberField = new TextField(20);
    Button processButton = new Button("Process Transaction");
    processButton.addActionListener(new ProcessTransactionHandler());
    resultArea = new TextArea(10, 50);
    resultArea.setEditable(false);
    add(amountLabel);
    add(amountField);
```

```
add(cardNumberLabel);
  add(cardNumberField);
  add(processButton);
  add(resultArea);
  setTitle("Transaction Processor");
  setSize(600, 400);
  setVisible(true);
  addWindowListener(new WindowAdapter() {
    public void windowClosing(WindowEvent e) {
      System.exit(0);
    }
  });
}
class ProcessTransactionHandler implements ActionListener {
  public void actionPerformed(ActionEvent e) {
    try {
      double amount = Double.parseDouble(amountField.getText());
      String cardNumber = cardNumberField.getText();
      if (cardNumber.isEmpty()) {
        resultArea.setText("Card number cannot be empty!");
        return;
      }
      Transaction transaction = new Transaction(amount, cardNumber);
      resultArea.setText(transaction.toString());
      if (transaction.isSuspicious()) {
        resultArea.append("\n\nWarning: Transaction is marked as suspicious!");
      } else {
        resultArea.append("\n\nTransaction is safe!");
      }
      // Clear the input fields after processing
```

```
amountField.setText("");
    cardNumberField.setText("");
} catch (NumberFormatException ex) {
    resultArea.setText("Invalid amount. Please enter a valid number.");
}

public static void main(String[] args) {
    new Main();
}
```