import javax.swing.\*;  
import java.awt.\*;  
import java.awt.event.ActionEvent;  
import java.awt.event.ActionListener;  
  
public class SmartBudget {  
 public static void main(String[] args) {  
 JFrame frame = new JFrame("Smart Budget - Student Expense Management");  
 frame.setDefaultCloseOperation(JFrame.*EXIT\_ON\_CLOSE*);  
 frame.setSize(600, 600);  
  
 JPanel panel = new JPanel(new GridLayout(13, 2, 10, 10));  
 panel.setBorder(BorderFactory.*createEmptyBorder*(20, 20, 20, 20));  
  
 JLabel titleLabel = new JLabel("SMART BUDGET - STUDENT EXPENSE MANAGER", JLabel.*CENTER*);  
 titleLabel.setFont(new Font("Arial", Font.*BOLD*, 18));  
 frame.add(titleLabel, BorderLayout.*NORTH*);  
 JTextField nameField = new JTextField();  
 JTextField incomeField = new JTextField();  
 JTextField rentField = new JTextField();  
 JTextField foodField = new JTextField();  
 JTextField transportField = new JTextField();  
 JTextField utilityField = new JTextField();  
 JTextField internetField = new JTextField();  
 JTextField studyField = new JTextField();  
 JTextField entertainmentField = new JTextField();  
 JTextField othersField = new JTextField();  
  
 panel.add(new JLabel("Your Name:"));  
 panel.add(nameField);  
 panel.add(new JLabel("Total Monthly Income (VND):"));  
 panel.add(incomeField);  
 panel.add(new JLabel("Rent:"));  
 panel.add(rentField);  
 panel.add(new JLabel("Food:"));  
 panel.add(foodField);  
 panel.add(new JLabel("Transportation:"));  
 panel.add(transportField);  
 panel.add(new JLabel("Utilities (Electricity, Water, Gas):"));  
 panel.add(utilityField);  
 panel.add(new JLabel("Internet and Phone:"));  
 panel.add(internetField);  
 panel.add(new JLabel("Study (Books, Tuition):"));  
 panel.add(studyField);  
 panel.add(new JLabel("Entertainment:"));  
 panel.add(entertainmentField);  
 panel.add(new JLabel("Other Expenses:"));  
 panel.add(othersField);  
  
  
 JButton calculateBtn = new JButton("Calculate");  
 JButton resetBtn = new JButton("Reset");  
 panel.add(calculateBtn);  
 panel.add(resetBtn);  
  
 frame.add(panel, BorderLayout.*CENTER*);  
  
 calculateBtn.addActionListener(new ActionListener() {  
 @Override  
 public void actionPerformed(ActionEvent e) {  
 try {  
 String name = nameField.getText();  
 double income = Double.*parseDouble*(incomeField.getText());  
 double rent = Double.*parseDouble*(rentField.getText());  
 double food = Double.*parseDouble*(foodField.getText());  
 double transport = Double.*parseDouble*(transportField.getText());  
 double utility = Double.*parseDouble*(utilityField.getText());  
 double internet = Double.*parseDouble*(internetField.getText());  
 double study = Double.*parseDouble*(studyField.getText());  
 double entertainment = Double.*parseDouble*(entertainmentField.getText());  
 double others = Double.*parseDouble*(othersField.getText());  
  
 double totalExpenses = rent + food + transport + utility + internet + study + entertainment + others;  
 double balance = income - totalExpenses;  
  
 String message = "Hello " + name + ",\n\n"  
 + "Your total monthly expenses: " + String.*format*("%,.0f", totalExpenses) + " VND\n"  
 + "Remaining balance after expenses: " + String.*format*("%,.0f", balance) + " VND";  
  
 JOptionPane.*showMessageDialog*(frame, message, "Calculation Result", JOptionPane.*INFORMATION\_MESSAGE*);  
  
 } catch (NumberFormatException ex) {  
 JOptionPane.*showMessageDialog*(frame, "Please enter valid numbers in all fields.",  
 "Input Error", JOptionPane.*ERROR\_MESSAGE*);  
 }  
 }  
 });  
  
 resetBtn.addActionListener(e -> {  
 nameField.setText("");  
 incomeField.setText("");  
 rentField.setText("");  
 foodField.setText("");  
 transportField.setText("");  
 utilityField.setText("");  
 internetField.setText("");  
 studyField.setText("");  
 entertainmentField.setText("");  
 othersField.setText("");  
 });  
  
 frame.setVisible(true);  
 }  
}