import javax.swing.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.time.LocalDate;

import java.time.Period;

import java.time.format.DateTimeFormatter;

public class AgeCalculatorApp {

public static void main(String[] args) {

// Create a JFrame for the application window

JFrame frame = new JFrame("Age Calculator");

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(400, 200);

// Create a JPanel to hold the components

JPanel panel = new JPanel();

panel.setLayout(new GridLayout(3, 2));

// Add label and text field for birthdate input

JLabel birthdateLabel = new JLabel("Enter your birthdate (yyyy-mm-dd): ");

JTextField birthdateField = new JTextField();

// Add button to calculate age

JButton calculateButton = new JButton("Calculate Age");

// Add a label to display the result (user's age)

JLabel resultLabel = new JLabel("Your age is: ");

// Add components to the panel

panel.add(birthdateLabel);

panel.add(birthdateField);

panel.add(calculateButton);

panel.add(resultLabel);

// Add ActionListener to calculate the age when the button is clicked

calculateButton.addActionListener(new ActionListener() {

@Override

public void actionPerformed(ActionEvent e) {

String birthdateStr = birthdateField.getText();

DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd");

try {

// Parse the input birthdate

LocalDate birthdate = LocalDate.parse(birthdateStr, formatter);

LocalDate currentDate = LocalDate.now();

// Calculate the age

Period age = Period.between(birthdate, currentDate);

// Display the age in the result label

resultLabel.setText("Your age is: " + age.getYears() + " years");

} catch (Exception ex) {

resultLabel.setText("Invalid date format. Please use yyyy-mm-dd.");

}

}

});

// Add the panel to the frame and make it visible

frame.add(panel);

frame.setVisible(true);

}

}