

```
import javax.swing.*;

import java.awt.event.*;

public class GradeCalculator extends JFrame implements ActionListener {

    JLabel[] labels;

    JTextField[] textFields;

    JButton calculateButton;

    public GradeCalculator() {

        labels = new JLabel[5];

        textFields = new JTextField[5];

        String[] subjects = {"Subject 1", "Subject 2", "Subject 3", "Subject 4", "Subject 5"};

        for (int i = 0; i < 5; i++) {

            labels[i] = new JLabel(subjects[i]);

            textFields[i] = new JTextField();

            labels[i].setBounds(50, 50 + i * 50, 100, 30);

            textFields[i].setBounds(160, 50 + i * 50, 100, 30);

            add(labels[i]);

            add(textFields[i]);

        }

        calculateButton = new JButton("Calculate");

        calculateButton.setBounds(100, 300, 100, 30);

        calculateButton.addActionListener(this);

        add(calculateButton);

        setTitle("Student Grade Calculator");

        setSize(300, 400);

        setLayout(null);
```

```
setVisible(true);

setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
}
```

```
@Override
```

```
public void actionPerformed(ActionEvent e) {
```

```
    if (e.getSource() == calculateButton) {
```

```
        int totalMarks = 0;
```

```
        int numSubjects = 0;
```

```
        for (int i = 0; i < 5; i++) {
```

```
            String marksText = textFields[i].getText();
```

```
            if (!marksText.isEmpty()) {
```

```
                int marks = Integer.parseInt(marksText);
```

```
                totalMarks += marks;
```

```
                numSubjects++;
```

```
            }
```

```
        }
```

```
        double averagePercentage = (double) totalMarks / (numSubjects * 100) * 100;
```

```
        String grade = calculateGrade(averagePercentage);
```

```
        JOptionPane.showMessageDialog(this, "Total Marks: " + totalMarks +
```

```
            "\nAverage Percentage: " + averagePercentage + "%" +
```

```
            "\nGrade: " + grade);
```

```
    }
```

```
}
```

```
private String calculateGrade(double percentage) {
```

```
    if (percentage >= 90) {
```

```
        return "A+";
```

```
    } else if (percentage >= 80) {  
        return "A";  
    } else if (percentage >= 70) {  
        return "B";  
    } else if (percentage >= 60) {  
        return "C";  
    } else if (percentage >= 50) {  
        return "D";  
    } else {  
        return "F";  
    }  
}
```

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