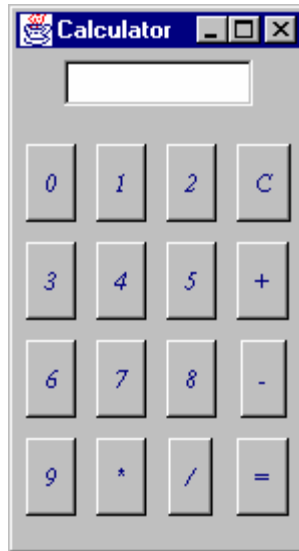


Lab 8. Problem1.

Event Handling. Listener Interfaces

- A. Write a program which implements the following window-based GUI for a very simple pocket computer:



Use a GridLayout layout manager in order to design the GUI.

- B. Add the handling of events to the GUI in order to simulate the computation of expressions with integer operands from 0 to 9 and four algebraic operations: +, -, *, and /. The solution should use buttons as event sources and an object of an internal class called `ActionEventController` as listener. The listener's handling method is described in the followings:

When a button named with a digit launches an `ActionEvent` event, the listener verifies if the digit is the first or second operand of an operation. If the digit is the first operand, the listener saves it. If the digit is the second operand, the listener carries out the operation previously indicated and saves the result.

The "C" button clears the memory and the text field.

The „/” button represents the real division.

With the „=” button the user can display the result of the expression evaluation.

Example

In the expression $7+3$, when the user pushes the „3” button, the result 10 will be saved in the memory, ready to be a first operand for the next operation. If after pushing „3” in the above example, the user pushed the „=” button, 10 should be displayed in the text field.

Constraint

The user can not enter directly characters in the text field.