

```
// CalcModel.java
// Fred Swartz - December 2004
// Paolo Bucci -- November 2009 (modified)
// Model
//     This model is completely independent of the user interface.
//     It could as easily be used by a command line or web interface.

import java.math.BigInteger;

public class CalcModel {

    // ... Constants
    private static final String INITIAL_VALUE = "1"; // identity for multiply

    // ... Member variable defining state of calculator.
    private BigInteger m_total; // The total current value state.

    // =====
    // constructor
    /** Constructor */
    public CalcModel() {
        this.reset();
    }

    // =====
    // reset
    /** Reset to initial value. */
    public void reset() {
        this.m_total = new BigInteger(INITIAL_VALUE);
    }

    // =====
    // multiplyBy
    /**
     * Multiply current total by a number.
     *
     * @param operand
     *        Number (as string) to multiply total by.
     */
    public void multiplyBy(String operand) {
        this.m_total = this.m_total.multiply(new BigInteger(operand));
    }

    // =====
    // setValue
    /**
     * Set the total value.
     *
     * @param value
     *        New value that should be used for the calculator total.
     */
    public void setValue(String value) {
        this.m_total = new BigInteger(value);
    }

    // =====
    // getValue
    /** Return current calculator total. */
    public String getValue() {
        return this.m_total.toString();
    }
}
```