

```

public class BankingExample {

    public static final int MAX_BALANCE = 1000;
    private /*@ spec_public @*/ int balance;
    private /*@ spec_public @*/ boolean isLocked = false;

    /*@ public invariant balance >= 0 && balance <= MAX_BALANCE;

    /*@ assignable balance;
    /*@ ensures balance == 0;
    public BankingExample() { balance = 0; }

    /*@ requires 0 < amount && amount + balance < MAX_BALANCE;
    /*@ assignable balance;
    /*@ ensures balance == \old(balance + amount);
    public void credit(int amount) { balance += amount; }

    /*@ requires 0 < amount && amount <= balance;
    /*@ assignable balance;
    /*@ ensures balance == \old(balance) - amount;
    public void debit(int amount) { balance -= amount; }

    /*@ ensures isLocked == true;
    public void lockAccount() { isLocked = true; }

    /*@ requires !isLocked;
    /*@ ensures \result == balance;
    /*@ also
    /*@ requires isLocked;
    /*@ signals_only BankingException;
    public /*@ pure @*/ int getBalance() throws BankingException {
        if (!isLocked) { return balance; }
        else { throw new BankingException(); }
    }
}

```