

```

package bankaccount;

public class BankAccount {

    private double balance;    // instance variable

    // Constructs a bank account with a zero balance.
    public BankAccount() { balance = 0; }

    // Constructs a bank account with a given balance.
    public BankAccount(double initialBalance) { balance = initialBalance; }

    // Deposits money into the bank account.
    public void setDeposit(double amount)
    {
        balance = balance + amount;
    }

    // Withdraws money from the bank account.
    public void setWithdraw(double amount)
    {
        balance = balance - amount;
    }

    // Gets the current balance of the bank account.
    public double getBalance() { return balance; }

    // Adds interest to the bank account.
    public void setAddInterest(double rate)
    {
        balance = balance + (balance * rate / 100.0);
    }

    public static void main(String[] args) {

        double balance; // local public variable

        // instantiate account, initialize to 1000 dollars
        BankAccount mySavings = new BankAccount(1000);

        mySavings.setAddInterest(10); // argument is a percentage

        balance = mySavings.getBalance();

        System.out.printf("Balance: %6.2f%n", balance);

    }
}

```