6/27/24, 8:24 AM BankAccount | Java OOP

<u>Courses Unit Assignment Stats Take Exams</u>

<u>Checklist</u>

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Core Deadline: Sunday of Week 2 Difficulty Level: Intermediate Est. Time: 2 - 4 hrs

BankAccount Assignment



Learning Objectives:

- Practice member variables
- Practice instance methods and getters
- Implement static variables and methods

We are going to create a BankAccount class. This class will recreate some of the common account transactions that normally occur for a bank account, such as displaying your account number, checking and savings amount, total amount. Of course, there are also methods to invoke, such as depositing a check, checking your balance, and withdrawing money.

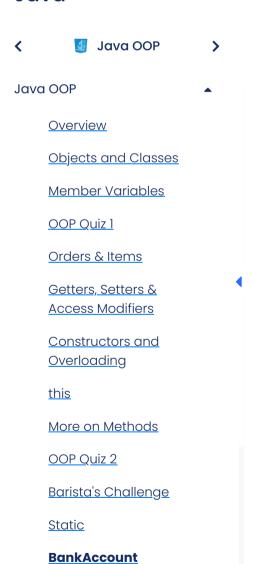


To get started, we will create the following two files:

BankAccount.java

```
public class BankAccount {
   // MEMBER VARIABLES
   private double checkingBalance;
   private double savingsBalance;
   private static int accounts;
   private static double totalMoney; // refers to the sum of all bank account checking
and savings balances
    // CONSTRUCTOR
    // Be sure to increment the number of accounts
    // GETTERS
    // for checking, savings, accounts, and totalMoney
    // METHODS
    // deposit
   // - users should be able to deposit money into their checking or savings account
   // withdraw
   // - users should be able to withdraw money from their checking or savings account
   // - do not allow them to withdraw money if there are insufficient funds
   // - all deposits and withdrawals should affect totalMoney
   // getBalance
    // - display total balance for checking and savings of a particular bank account
```

Java



BankTest.java

```
public class BankTest {
   public static void main(String[] args){
        // Create 3 bank accounts
        // Deposit Test
        // - deposit some money into each bank account's checking or savings account and
display the balance each time
        // - each deposit should increase the amount of totalMoney
        // Withdrawal Test
        // - withdraw some money from each bank account's checking or savings account and
display the remaining balance
        // - each withdrawal should decrease the amount of totalMoney
        // Static Test (print the number of bank accounts and the totalMoney)
}
```

Review the starting code and be sure to test your classes thoroughly.

- Create a BankAccount class with the correct member variables and methods.
 Users should not be able to set any of the attributes from the class.
 Create a BankTest class to test each BankAccount method you have created.
- Ninja Bonus 1: Add the following class attribute: account number. The type is up to you, can be a String or a Long or another type.

Submit



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