

```
1 package Lab1;
2
3 /**
4  * A new class called BankAccount to facilitate these banking methods
5  * @author Kyle Leahy
6  * @version 1.0
7 */
8 public class BankAccount {
9
10    private double balance; //Private primitive type to be
11                      //used for arithmetic
12
13    /**
14     * Method calculates a deposit transaction based off 'balance'
15     * @param amount
16     */
17    public void deposit(double amount) {
18        balance = balance + amount;
19    }
20
21    /**
22     * Method calculates a withdrawal transaction also using 'balance'
23     * @param amount
24     */
25    public void withdrawal(double amount) {
26        balance = balance - amount;
27    }
28
29    /**
30     * Method retrieves the balance of the bank account in a 'getBalance'
31     ' method
32     * @return Returns the balance of the bank account
33     */
34    public double getBalance() {
35        return balance;
36    }
37
38    /**
39     * Method calculates the interest of the given bank account
40     * at a fixed value of 5% APY
41     */
42    private void calculateInterest() {
43        balance = balance * 1.05; // <- 5% APY set value
44    }
45
46    /**
47     * Main function creating 2 new BankAccount objects for Bob and Jane
48     * As well depositing and withdrawing cash to ensure
49     * after printing the balance, the methods work properly
50     * @param args
```

```
50     */
51     public static void main(String args[]) {
52         BankAccount bobsAccount = new BankAccount();
53         BankAccount janesAccount = new BankAccount();
54
55         bobsAccount.deposit(450.50);
56         janesAccount.deposit(1230.75);
57
58         bobsAccount.withdrawal(230.00);
59         janesAccount.withdrawal(452.43);
60
61         bobsAccount.deposit(412.23);
62         janesAccount.withdrawal(142.56);
63
64         System.out.println("Bob's Account is currently: " + bobsAccount.
65             getBalance());
66         System.out.println("Jane's Account is currently: " + janesAccount
67             .getBalance());
68     }
69 }
```