

# Home Work

You are a programmer for the Home Software Company. You have been assigned to develop a class that models the basic workings of a bank account. The class should perform the following tasks:

- Save the account balance.
- Save the number of transactions performed on the account.
- Allow deposits to be made to the account.
- Allow withdrawals to be taken from the account.
- Calculate interest for the period.
- Report the current account balance at any time.
- Report the current number of transactions at any time.

## Private Member Variables

lists the private member variables needed by the class.

Variable	Description
balance	A double that holds the current account balance.
interestRate	A double that holds the interest rate for the period.
interest	A double that holds the interest earned for the current period.
transactions	An integer that holds the current number of transactions.

## Public Member Functions

lists the public member functions needed by the class.

Function	Description
setInterestRate	Takes a double argument which is stored in the interestRate member.
makeDeposit	Takes a double argument, which is the amount of the deposit. This argument is added to balance.
withdraw	Takes a double argument which is the amount of the withdrawal. This value is subtracted from the balance, unless the withdrawal amount is greater than the balance. If this happens, the function reports an error.

<code>calcInterest</code>	Takes no arguments. This function calculates the amount of interest for the current period, stores this value in the <code>interest</code> member, and then adds it to the <code>balance</code> member.
<code>getInterestRate</code>	Returns the current interest rate (stored in the <code>interestRate</code> member).
<code>getBalance</code>	Returns the current balance (stored in the <code>balance</code> member).
<code>getInterest</code>	Returns the interest earned for the current period (stored in the <code>interest</code> member).
<code>getTransactions</code>	Returns the number of transactions for the current period (stored in the <code>transactions</code> member).

**Note:** Must submit **RollNo\_Name.ccp** file.

**END**