

```
/** Account class per CIS2571 Lab #6 assignment */
public class Account {
    // data fields per textbook requiremetns
    private int id;
    private double balance;
    private static double annualInterestRate;
    private java.util.Date dateCreated;
    // CRE additions for lab assignment
    private String name;

    // no-arg constructor to create default account
    public Account() {
        dateCreated = new java.util.Date();
    }

    // constructor that creates an account with specified id and initial balance
    public Account(int newId, double newBalance) {
        id = newId;
        balance = newBalance;
        dateCreated = new java.util.Date();
    }

    // accessor methods id, balance, and annualInterestRate
    public int getId() {
        return this.id;
    }

    public double getBalance() {
        return balance;
    }

    public static double getAnnualInterestRate() {
        return annualInterestRate;
    }

    // mutator methods for id, balance, and annualInterestRate
    public void setId(int newId) {
        id = newId;
    }

    public void setBalance(double newBalance) {
        balance = newBalance;
    }

    public static void setAnnualInterestRate(double newAnnualInterestRate) {
        annualInterestRate = newAnnualInterestRate;
    }

    // CRE addition to return monthly interest amount for current balance
    public double getMonthlyInterest() {
        return balance * (annualInterestRate / 1200);
    }
}
```

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// accessor method for dateCreated
public java.util.Date getDateCreated() {
    return dateCreated;
}

// withdraws a specified amount from account
public void withdraw(double amount) {
    if (amount < balance)
        balance -= amount;
    else {
        System.out.println("Error! Cannot withdraw amount larger than
        balance!");
        System.exit(0);
    }
}

// deposit a specific amount to account
public void deposit(double amount) {
    balance += amount;
}

// additions for lab assignment
public String getName() {
    return name;
}
public void setName(String newName) {
    name = newName;
}
}
```