

// Deethya Makonahalli's class for a credit account that uses methods from "Account" and stores new variables and performs calculations on those variables

```
public class CreditAccount extends Account{

    //initialising the field monthlyPayment
    private double monthlyPayment;

    //initialising the field amountPaidThisMonth
    private double amountPaidThisMonth;

    //initialising the field interestRate
    private double interestRate;

    //initialising the field accountNumber
    private String accountNumber;

    // Constructor for Credit Account which takes inputs accountNumber and
    interestRate
    public CreditAccount(String accountNumber, double interestRate){
        super(accountNumber, (int)interestRate);
        accountNumber = accountNumber;
        this.interestRate = interestRate;
    }

    // Method Setting the interest rate

    public void setInterestRate(double interestRate){
        this.interestRate = interestRate;
    }

    // Method to access the Interest Rate

    public double getInterestRate(){
        return this.interestRate;
    }

    // Method to set Monthlthly payments

    public void setMonthlyPayment(double monthlyPayment){
        this.monthlyPayment = monthlyPayment;
    }

    //Method to set Amount paid for each month
    public void setAmountPaidThisMonth(double amountPaidThisMonth){
        this.amountPaidThisMonth = amountPaidThisMonth;
    }

    // Method to access the monthly payment

    public double getMonthlyPayment(){
        return this.monthlyPayment;
    }

    // Method to access the Amount Paid in the past month

    public double getAmountPaidThisMonth(){
        return this.amountPaidThisMonth;
    }
}
```

// Method to check if the amount paid this month is less than the monthly payment
and adjust the Balance as per the interest rate

```
public void endOfMonth(){
    if (amountPaidThisMonth<monthlyPayment){
        this.setBalance((this.getBalance()*interestRate)/12);
    }
    else {
        this.setBalance(this.getBalance());
        this.setBalance(monthlyPayment);
        setAmountPaidThisMonth(0);
    }
}
```

// Method to set the credit and adjust the Balance by the credit

```
@Override
public void credit(double credit){
    this.setBalance(this.getBalance() - credit);
    this.setAmountPaidThisMonth(this.getAmountPaidThisMonth() - credit);
}
}
```