DATE:08-07-19	ELECTRICITY BILL GENERATION
EXP.NO: 1	

Aim:

To develop a java console application to generate ElectricityBill and to create a package biiling and to create a class ElectricityBill with the following members:customer no,customer name,previous month reading,current month reading,type

Requirements:

Create a class ElectricityBills with the following Data members:custumer no,customer name,previous month reading,current month reading,type

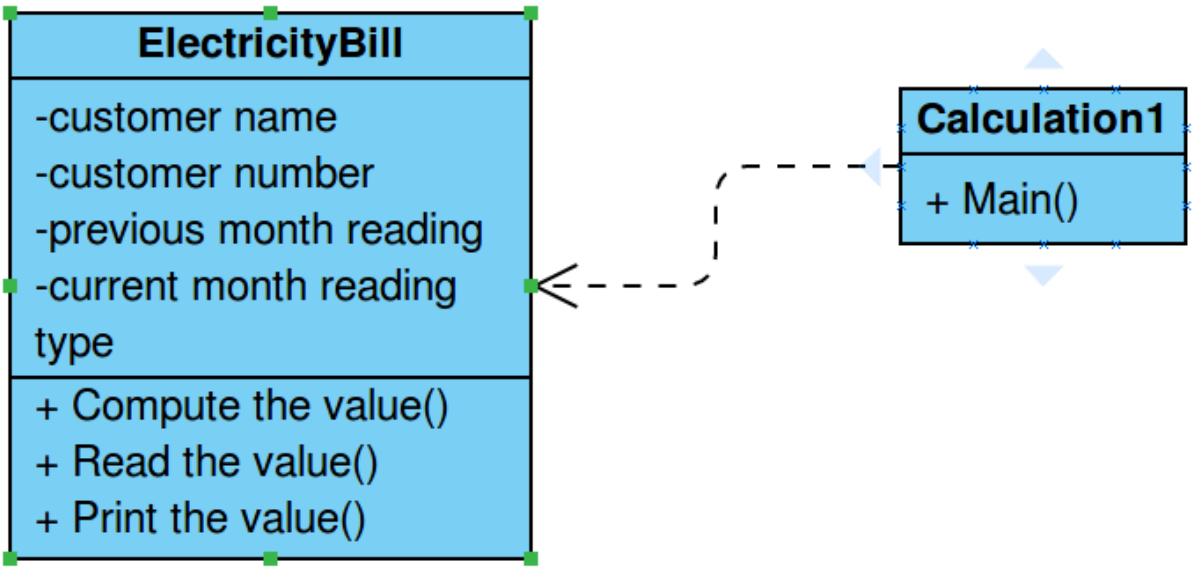
Member function: Read the value,compute the value,print the value

Algorithm:

STEP1:Declare a package Billings
STEP2:Declare a class name ElectricityBill
STEP3:Declare a constructor with initial attribute
STEP4:Declare a data member and a member function
STEP5:Declare a class Calculation1 with static main function
STEP6:Create object of type with customer name,customer no,previous month reading,current month reading , customer type(Domestic orcommercial)

STEP7:Get the input from the user
STEP8:Calculate the total electricity bill
STEP9:display result

CLASS DIAGRAM:



PROGRAMME:

ElectricityBill.java

```
package billings;
import java.util.Scanner;
import java.util.Scanner;
/**
 * Electricity bill
 * @author  sumanth
 *
 */
public class ElectricityBill {
	private long customernumber;
	private String customername;
	private double previousmonthreading;
	private double currentmonthreading;
	private String customertype;

	/**
	 * to create electricity bill with initial values
	 *
	 */
	public ElectricityBill()
	{
		this.customernumber=1000;
		this.customername="unknown";
		this.currentmonthreading=0;
		this.previousmonthreading=0;
		this.customertype="Domestic";

	}
	public ElectricityBill(long number,String name,double c_reading,double p_reading,String
type)
	{
		this.customernumber=number;
		this.customername=name;
		double c_rating;
		currentmonthreading=c_reading;
		previousmonthreading=p_reading;
		customertype=type;
		}
	/**
	 * to get bill information from the user
	 */
	public void getData()
	{
		Scanner sc=new Scanner(System.in);

		System.out.printf("\n%40s","BILLING INFORMATION");
		System.out.print("\nEnter the customer number:");
		this.customernumber=sc.nextLong();
```

```
                System.out.print("Enter the customer name:");
                customername= sc.next();
                System.out.print("Enter the current month reading:");
                currentmonthreading=sc.nextDouble();
                System.out.print("Enter the previous month reading");
                previousmonthreading=sc.nextDouble();
                System.out.print("Enter the customer type (Domestic or Commercial):");
                customertype=sc.next();



        }
        /**
         * to print the bill details
         */
        public void printData()
        {
                System.out.printf("%-40s%40s\n", "Customer
Number:"+customernumber,"CustomerName:"+customername);
                System.out.printf("%s%8.2f %s%8.2f %-16s %40s\n", "current month
reading:",currentmonthreading,"previous month
reading:",previousmonthreading,"CustomerType:",customertype);

        }
        /***
         * to get the total amount
         */
        public void computeBillAmount()
        {
                double totalAmount=-1;
                double unitsconsumed;
                String divider="--------------------------------------------------------------------------------";

                unitsconsumed=currentmonthreading-previousmonthreading;
                if(customertype.equals("Domestic"))
                {
                        if((unitsconsumed>=0)&& (unitsconsumed<=100))
                        {
                                totalAmount=unitsconsumed*1.0;
                        }else if((unitsconsumed>=101)&&(unitsconsumed<=200))
                        {
                                totalAmount=unitsconsumed*2.50;
                        }else if((unitsconsumed>=201)&&(unitsconsumed==500))
                        {
                                totalAmount=unitsconsumed*4.0;
                        }else
                        {
                                totalAmount=unitsconsumed*6.0;
                        }
                }else if(customertype.equals("Commercial"))
                {
                        if((unitsconsumed>=0)&& (unitsconsumed<=100))
```

```
                {
                        totalAmount=unitsconsumed*2.0;
                }else if((unitsconsumed>=101)&&(unitsconsumed<=200))
                {
                        totalAmount=unitsconsumed*4.50;
                }else if((unitsconsumed>=201)&&(unitsconsumed<=500))
                {
                        totalAmount=unitsconsumed*6.0;
                }else
                {
                        totalAmount=unitsconsumed*7.0;
                }
        }
        System.out.print("\n"+divider+"\n");
        System.out.printf("%40s", "Electricity BILL");
        System.out.print("\n"+divider+"\n");
        this.printData();
        System.out.printf("%29s%8.2f Rs", "Total Amount:",totalAmount);
        System.out.print("\n"+divider+"\n");
    }
}
```

Calculation1.java

```
package billings;

public class Calculation1 {
    public static void main(String[] args) {
        ElectricityBill bill1,bill2;

        bill1=new ElectricityBill(2001,"Kamal",0,0,"Domestic");
        bill1.printData();
        bill2=new ElectricityBill();
        bill2.getData();
        bill1.computeBillAmount();
        bill2.computeBillAmount();
    }
}
```

OUTPUT:

```
customer number:2001                customer name: kamal
current month reading:0             previous month reading:0
customer type:Domestic
```

BILLING INFORMATION

```
Enter the customer number: 47655
Enter the customer name: sumanth
Enter the current month reading: 899
Enter the previous month reading:675
```

Enter the customer type(Domestic or Commercial):Commercial

ELECTRICITY BILL

customer number=2001 customer name:kamal
current month reading:0 previous month reading:0
customer type: Domestic

Total amount:0.00 Rs

ELECTRICITY BILL

customer number:47655 customer name:sumanth
current month reading:899 previous month reading:675
customer type:Commercial

Total amount:1344 Rs

RESULT:

Thus a java console application is developed to find Electricity Bill