EX.NO:1	ELECTRICITY BILL GENERATION
08-07-19	

AIM:

To develop a java application to generate electricity bill.

Requirement:

Create a class electricity bill with the following,

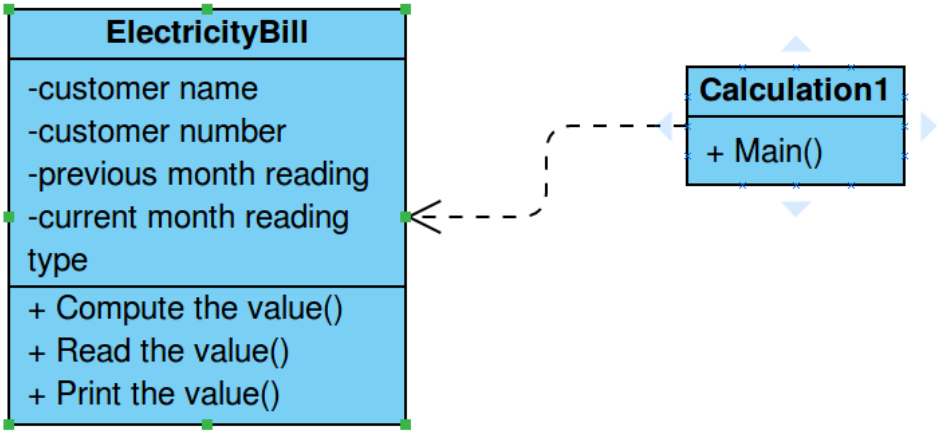
Data member:

Customer number,Customer name,Previuos month reading,Current month reading and type of EB connection.

Alogrithm:

Step1:Declare a package electricity bill.
Step2:Declare a class name electricity bill.
Step3:Declare a constructor with initial attribute.
Step4:Declare get data member and member function.
Step5:Declare class calculation1 with a state function.
Step6:Create object of type with customer number,customer name,previous month reading,current month reaing and type of EB connection.
Step7:Get the the input from user.
Step8:Calculate the total electricity bill.
Step9: Display results.

Class diagram:



Program:

```
/****
 * Program to represent electricity bill
 * developed by
 * @author Mahesh K
 */



package billings;

import java.util.Scanner;

public class ElectricityBill {
    private long customernumber;
    private String customername;
     private double previousmonthreading;
    private String customertype;
    private double currentmonthreading;

/***
 * To create Electricity bill with initial values
 */
public ElectricityBill()
{
        this.customernumber=0;
        this.customername="unknown";
        this.previousmonthreading=0;
        this.customertype="commercial";
        this.currentmonthreading=0;
}

/***
 *
 * @param number  Customer number like 1001 etc
 * @param name Customer name
 * @param number previous month reading
 * @param type type of the customer commercial or domestic
 * @param number current month reading
 */
public ElectricityBill(long number,String name,double reading,String type,double readings)
{
        this.customernumber=number;
        this.customername=name;
        previousmonthreading=number;
        customertype=type;
        currentmonthreading=number;
}

/***
 * To get billing 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 previous month reading:");
	previousmonthreading=sc.nextDouble();
	System.out.print("Enter the customer type (commercial or domestic):");
	customertype=sc.next();
	System.out.println("current month reading:");
	currentmonthreading=sc.nextDouble();

}

/*****
 * 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 %-16s%40s\n",
"previousReading:",previousmonthreading,"CustomerType:",customertype);
	System.out.printf("%-40s", "currentReading:"+currentmonthreading);
}

/***
 * To calculate the bill amount
 */
public void computeBillAmount()
{
	double totalAmount=-1;
	String divider="--------------------------------------------------------------------------------";

	if(customertype.equals("domestic"))
	{
		if((currentmonthreading>=0)&& (currentmonthreading<=100))
		{
			totalAmount=currentmonthreading*1.0;
		}else if((currentmonthreading>=101)&&(currentmonthreading<=200))
		{
			totalAmount=currentmonthreading*2.50;
		}else if((currentmonthreading>=201)&&(currentmonthreading<=500))
		{
```

```
                totalAmount=currentmonthreading*4.0;
            }else
            {
                totalAmount=currentmonthreading*6.0;
            }
        }else if(customertype.equals("commercial"))
        {
            if((currentmonthreading>=0)&& (currentmonthreading<=100))
            {
                totalAmount=currentmonthreading*2.0;
            }else if((currentmonthreading>=101)&&(currentmonthreading<=200))
            {
                totalAmount=currentmonthreading*4.50;
            }else if((currentmonthreading>=201)&&(currentmonthreading<=500))
            {
                totalAmount=currentmonthreading*6.0;
            }else
            {
                totalAmount=currentmonthreading*7.0;
            }
        }
        System.out.print("\n"+divider+"\n");
        System.out.printf("%40s", "ELECTICITY 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");
  }

}

/****
 * program to represent electricity bill
 * developed  by mahesh k
 *
 */


package billings;

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

        bill1=new ElectricityBill(2001,"vijay",90, "Domestic",155);
        bill1.printData();
        bill2=new ElectricityBill();
        bill2.getData();
        bill1.computeBillAmount();
        bill2.computeBillAmount();
        }
```

Output:

```
                      BILLING INFORMATION
Enter the customernumber:2001
Enter the customername:vijay
Enter the Previous Month Reading:90
Enter the Current Month Reading:155
Enter the Customer type (Domestic,Commercial):Domestic
--------------------------------------------------------------------------------
                        SALE BILL
--------------------------------------------------------------------------------
CustomerNumber:1001
CustomerName:mahesh
PreviousMonthReading:456
CurrentMonthReading:789
Customertype:Domestic
Total Amount: 1332.00 Rs
```

Result:

As per requirement electricity bill is generated successfully.