

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

AIM:

To develop a java console application to generate electricity bill.

REQUIREMENTS:

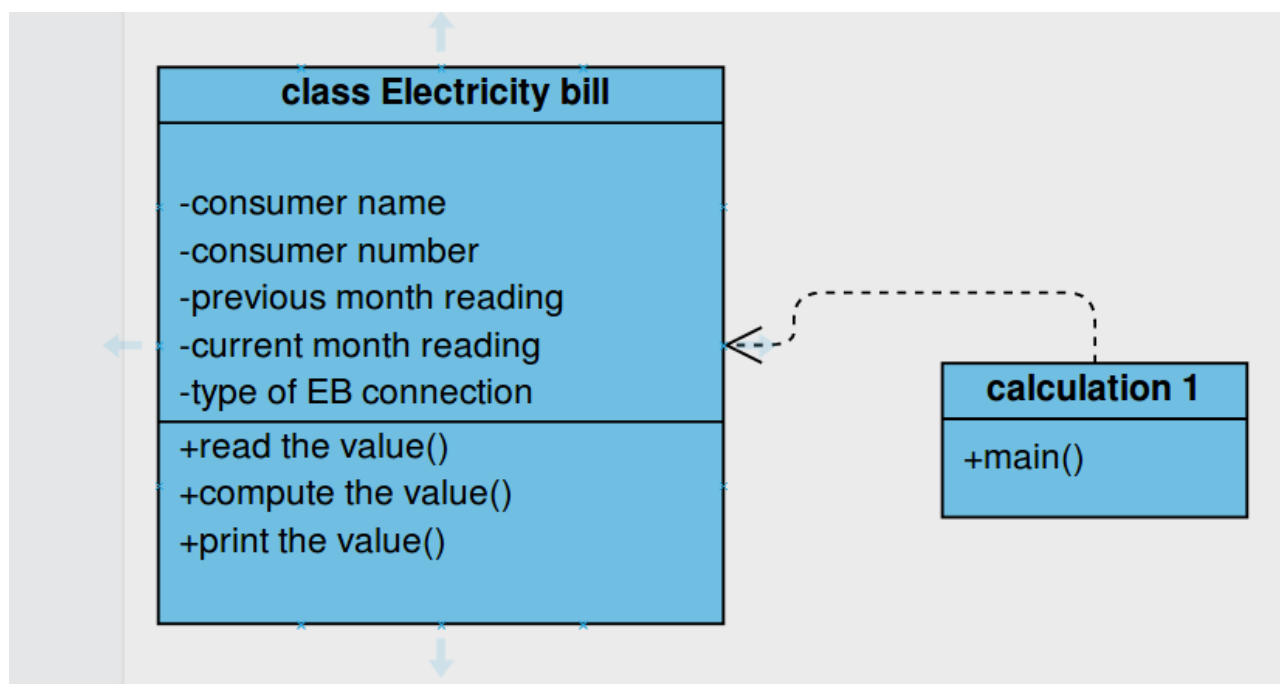
Create a classelectricity bill with the data members:

- 1.Consumer number
- 2.Consumer name
- 3.Previous month readings
- 4.Current month readings
- 5.Type of connection

ALGORITHM:-

- 1.Declare a package electricity bills
- 2.Declare a class name of electricity bills.
- 3.Declare a constructors with initial attributes.
- 4.Declare get data member and member function.
- 5.Declare claa calculation,with a static main function.
- 6.create object with consumer name,consumer no,previous month readings,current month readings.
- 7.Get the input from user.
- 8.Calculate the total electricity bill
- 9.Display result.

CLASS DIAGRAM:



PROGRAM:

```
/**
 * Program for Electricity bill
 * @author Monica r
 * monicarajavel26@gmail.com
 */
package electricitybills;
import java.util.Scanner;
public class ElectricityBills {
    private long consumernumber;
    private String consumername;
    private long previousmonthreading;
    private long currentmonthreading;
    private String consumertype;

    public ElectricityBills()
    {
        this.consumernumber=1001;
        this.consumername="unknown";
        this.previousmonthreading=100;
        this.currentmonthreading=120;
        this.consumertype="domestic";
    }

    public ElectricityBills(long number,String name,long reading1,long reading2,String type)
    {
        this.consumernumber=number;
        this.consumername=name;
        previousmonthreading=reading1;
        currentmonthreading=reading2;
        consumertype=type;
    }

    public void getdata()
    {
        Scanner sc=new Scanner(System.in);
        System.out.printf("\n%40s","BILLING INFORMATION");
        System.out.print("\nEnter the consumernumber:");
        this.consumernumber=sc.nextLong();
        System.out.print("Enter the consumername:");
        this.consumername= sc.next();
        System.out.print("Enter the Previous Month Reading:");
        previousmonthreading=sc.nextLong();
        System.out.print("Enter the Current Month Reading:");
        currentmonthreading=sc.nextLong();
        System.out.print("Enter the consumer type (Domestic,Commercial):");
        consumertype=sc.next();
    }

    public void printData()
    {
        System.out.println("consumerNumber:"+consumernumber);
    }
}
```

```

System.out.println("consumerName:"+consumername);
System.out.println("PreviousMonthReading:"+previousmonthreading);
System.out.println("CurrentMonthReading:"+currentmonthreading);
System.out.println("consumertype:"+consumertype);
}
public void computeBillamount()
{
long unit=currentmonthreading-previousmonthreading;
double billAmount;
billAmount=0;
String spacing="-----";

if(consumertype.equals("Domestic"))
{
if((unit>=0)&& (unit<=100))
{
billAmount=unit*1.0;
}
else if((unit>=101)&&(unit<=200))
{
billAmount=unit*2.50;
}
else if((unit>=201)&&(unit<=500))
{
billAmount=unit*4.0;
}
else
{
billAmount=unit*6.0;
}
}
else if(consumertype.equals("Commercial"))
{
if((unit>=0)&& (unit<=100))
{
billAmount=unit*2.0;
}
else if((unit>=101)&&(unit<=200))
{
billAmount=unit*4.50;
}
else if((unit>=201)&&(unit<=500))
{
billAmount=unit*6.0;
}
else
{
billAmount=unit*7.0;
}
}
}
System.out.print("\n"+spacing+"\n");
System.out.printf("%40s", "SALE BILL");
System.out.print("\n"+spacing+"\n");
this.printData();
System.out.printf("%29s%8.2f Rs", "Total Amount:",billAmount);
System.out.print("\n"+spacing+"\n");
}
}

```

```

/****
* Program for Electricity bill

* @author Monica R
* monicrajavel26@gmail.com
*/
package electricitybills;

public class Calculationforbillings {

public static void main(String[] args) {
// TODO Auto-generated method stub
ElectricityBills E1,E2;
E1=new ElectricityBills(1001,"Tamil",90,110,"Domestic");
E1.printData();
E2=new ElectricityBills();
E2.getdata();
E1.computeBillamount();
E2.computeBillamount();
}
}

```

OUTPUT:

```

    consumerNumber:1001
consumerName:Tamil
PreviousMonthReading:90
CurrentMonthReading:110
consumertype:Domestic

```

BILLING INFORMATION

```

Enter the consumernumber:5050
Enter the consumername:Moni
Enter the Previous Month Reading:25
Enter the Current Month Reading:30
Enter the consumer type (Domestic,Commercial):Domestic

```

SALE BILL

```

consumerNumber:1001
consumerName:Tamil
PreviousMonthReading:90
CurrentMonthReading:110
consumertype:Domestic
Total Amount: 20.00 Rs

```

SALE BILL

```

consumerNumber:5050
consumerName:Moni

```

PreviousMonthReading:25
CurrentMonthReading:30
consumertype:Domestic
Total Amount: 5.00 Rs

RESULT:

Thus the java application is developed to generate electricity bill.