EX 01	ELECTRICITY BILL GENERATION
09-07-2019	

AIM:

To develop a java console application to generate electricity bill.

REQUIREMENT:

Develop a java application to create a package billings and to create a class ElectricityBill with the data members: Consumer no, Consumer name, previous month reading, current month reading, type of EB connection.

Member functions: getData, printData, computeBillAmount, and constructors,

Create a class Calculation1 with main function, create object EBill class, get the data and display the bill amount by calling computeBillAmount function.

ALGORITHMS:

Step1: Create class ElectricityBill with customernumber, customername, previousmonthreading, currentmonthreading, type data members , getdata, printdata, and computeBillAmount member functions and constructors.

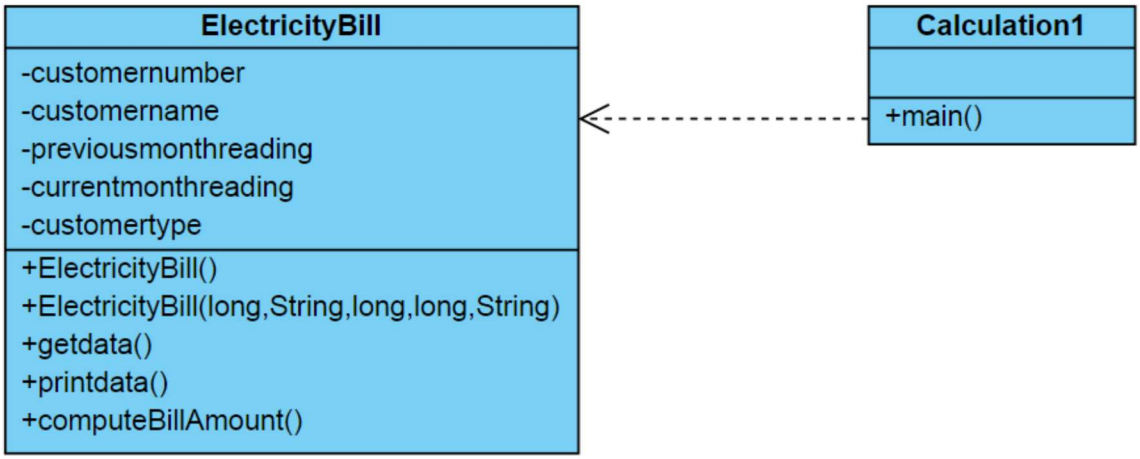
Step 2: Create class Calculation1 with a static main function.

Step 3: Get data from user.

Step 4: Compute BillAmount.

Step 5: Print data.

CLASS DIAGRAM:



PROGRAM:

……Electricity bill…….

```
/*created by kaarthikeyan
 * email:gk81299@gmail.com
 *
 */
package billings;
import java.util.Scanner;
public class ElectricityBill {
        private long customernumber;
        private String customername;
        private long previousmonthreading;
        private long currentmonthreading;
        private String customertype;

        public ElectricityBill()
        {
```

```
        this.customernumber=1000;
        this.customername="gk";
        this.previousmonthreading=10;
        this.currentmonthreading=12;
        this.customertype="domestic";
}

public ElectricityBill(long number,String name,long pmr,long cmr ,String type)
{
        this.customernumber=number;
        this.customername=name;
        previousmonthreading=pmr;
        currentmonthreading=cmr;
        customertype=type;
}
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.println("Enter the customer name:");
        this.customername= sc.next();
        System.out.println("Enter the Previous Month Reading");
        previousmonthreading=sc.nextLong();
        System.out.println("Enter the Current Month Reading");
        currentmonthreading=sc.nextLong();
        System.out.println("Enter the Customer type (Domestic,Commercial)");
```

```
            customertype=sc.next();
        }
        public void printData()
        {
            System.out.print("Customer Number:"+customernumber+"
"+"CustomerName:"+customername+"    ");
            System.out.print("PreviousMonthReading:"+previousmonthreading+"
"+"CurrentMonthReading:"+currentmonthreading+"    "+"Customer Type:"+customertype);
        }
        public void computeBillamount()
        {
            long unit=currentmonthreading-previousmonthreading;
            double billAmount=0;
            String spacing="------------------------------------------------------------";
            if(customertype.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(customertype.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");
    }
}
```

…….Calculation…….

```
/*created by kaarthikeyan
 * email:gk81299@gmail.com
 *
 */
package billings;

public class Calculationofbilling
{

	public static void main(String[] args) {
		ElectricityBill B1,B2;
		B1=new ElectricityBill(1000,"gk",1010,1329,"Domestic");
		B1.printData();
		B2=new ElectricityBill();
		B2.getdata();
		B1.computeBillamount();
		B2.computeBillamount();

	}

}
```

OUTPUT:

```
Customer Number:1000   CustomerName:gk   PreviousMonthReading:1010
CurrentMonthReading:1329   Customer Type:Domestic
                    BILLING INFORMATION
Enter the customer number:81299
Enter the customer name:
kaarthikeyan
Enter the Previous Month Reading
32423
Enter the Current Month Reading
32782
Enter the Customer type (Domestic,Commercial)
Domestic

--------------------------------------------------------------------------------
                          SALE BILL
--------------------------------------------------------------------------------
Customer Number:1000   CustomerName:gk   PreviousMonthReading:1010
CurrentMonthReading:1329   Customer Type:Domestic              Total Amount: 1276.00 Rs
--------------------------------------------------------------------------------

--------------------------------------------------------------------------------
                          SALE BILL
--------------------------------------------------------------------------------
Customer Number:81299   CustomerName:kaarthikeyan   PreviousMonthReading:32423
CurrentMonthReading:32782   Customer Type:Domestic              Total Amount: 1436.00 Rs
--------------------------------------------------------------------------------
```

RESULT:

Thus a java application has been created to generate electricity bill.