EX.NO: 01	GENERATE ELECTRICITY BILL
DATE : 08-07-19	

AIM:

To develope a java application to generate electricity bill.

REQUIRMENT:

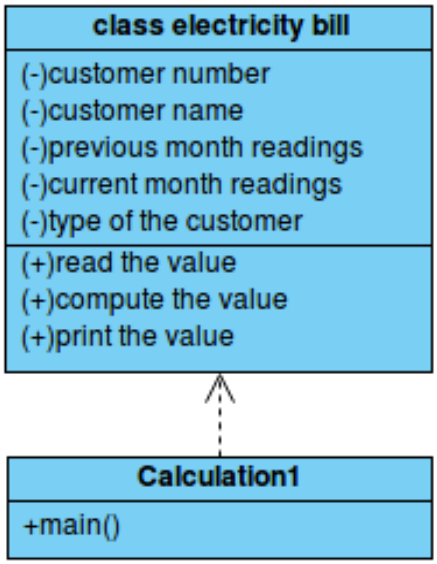
Create a class electricity bill with following data member

1. Customer Number.
2. Customer Name.
3. Previous Month Reading.
4. Current Month Reading.
5. Type of the Customer

ALGORITHM:

Step 1 : Declare a package Electricity bill.
Step 2 : Declare a class name Electricity bill.
Step 3 : Declare a constructor with initial attribute.
Step 4 : Declare get data member and member function.
Step 5 : Declare Class calculation1 with a static main function .
Step 6 : Create object of type with customer number, customer name, previous month reading, current month reading.
Step 7 : Get the data input from user.
Step 8 : Calculate the total Electricity bill.
Step 9 : Display results.

CLASS DIAGRAM:



PROGRAM :

```
 * Program for Electricity
 * @author Rositha V
 *  rajapandidevi1997@gmail.com
 */
 package electricitybills;
import java.util.Scanner;
public class ElectricityBills {
        private long customernumber;
        private String customername;
        private long previousmonthreading;
        private long currentmonthreading;
        private String customertype;

        public ElectricityBills()
        {
                this.customernumber=1001;
                this.customername="unknown";
                this.previousmonthreading=100;
                this.currentmonthreading=120;
                this.customertype="domestic";
        }

        public ElectricityBills(long number,String name,long reading1,long reading2,String type)
        {
                this.customernumber=number;
                this.customername=name;
                previousmonthreading=reading1;
                currentmonthreading=reading2;
                customertype=type;
        }
        public void getdata()
        {
                Scanner sc=new Scanner(System.in);
                System.out.printf("\n%40s","BILLING INFORMATION");
                System.out.print("\nEnter the customernumber:");
                this.customernumber=sc.nextLong();
                System.out.print("Enter the customername:");
                this.customername= 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 Customer type (Domestic,Commercial):");
                customertype=sc.next();
        }
        public void printData()
        {
                System.out.println("CustomerNumber:"+customernumber);
                System.out.println("CustomerName:"+customername);
                System.out.println("PreviousMonthReading:"+previousmonthreading);
```

```
            System.out.println("CurrentMonthReading:"+currentmonthreading);
                System.out.println("Customertype:"+customertype);
        }
        public void computeBillamount()
        {
                long unit=currentmonthreading-previousmonthreading;
                double billAmount;
                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");
        }
}
eading=reading1;
```

```
                currentmonthreading=reading2;
                customertype=type;
        }
        public void getdata()
        {
                Scanner sc=new Scanner(System.in);
                System.out.printf("\n%40s","BILLING INFORMATION");
                System.out.print("\nEnter the customernumber:");
                this.customernumber=sc.nextLong();
                System.out.print("Enter the customername:");
                this.customername= 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 Customer type (Domestic,Commercial):");
                customertype=sc.next();
        }
        public void printData()
        {
                System.out.println("CustomerNumber:"+customernumber);
                System.out.println("CustomerName:"+customername);
                System.out.println("PreviousMonthReading:"+previousmonthreading);
           System.out.println("CurrentMonthReading:"+currentmonthreading);
                System.out.println("Customertype:"+customertype);
        }
        public void computeBillamount()
        {
                long unit=currentmonthreading-previousmonthreading;
                double billAmount;
                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 for Bill :

```
/****
* Program for Electricity Bill
 * @author Rositha V
 *  rosithav1@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,"Raja",90,110,"Domestic");
                E1.printData();
                E2=new ElectricityBills();
                E2.getdata();
                E1.computeBillamount();
                E2.computeBillamount();
        }

}
```

OUTPUT :

```
CustomerNumber:1001
CustomerName:Raja
PreviousMonthReading:90
CurrentMonthReading:110
Customertype:Domestic

                    BILLING INFORMATION
Enter the customernumber:5050
Enter the customername:Rose
Enter the Previous Month Reading:25
Enter the Current Month Reading:30
Enter the Customer type (Domestic,Commercial):Domestic

--------------------------------------------------------------------------------
----
                               SALE BILL
--------------------------------------------------------------------------------
----
CustomerNumber:1001
CustomerName:Raja
PreviousMonthReading:90
CurrentMonthReading:110
Customertype:Domestic
                Total Amount:   20.00 Rs
--------------------------------------------------------------------------------
----

--------------------------------------------------------------------------------
----
                               SALE BILL
--------------------------------------------------------------------------------
----
CustomerNumber:5050
CustomerName:Rose
PreviousMonthReading:25
CurrentMonthReading:30
Customertype:Domestic
                Total Amount:    5.00 Rs
--------------------------------------------------------------------------------
----
```