Ex No. 1	ELECTRICITY BILL GENERATION
Date: 08/07/2019	

Aim:

* To develop a Java console application to generate the Electricity Bill using Consumer number, Consumer name, Type of EB Connection, Previous month reading, Current month reading and display the result.

Requirement:

* Develop a Java console application to generate the Electricity Bill using Consumer name, Consumer number, Type of EB Connection, Previous month reading, Current month reading.

* Create a package Billings.
* Create a class ElectricityBill with the following data members: Consumer number, Consumer name, Type of EB Connection(Domestic or Commercial), Previous month reading, Current month reading.
*Member functions: get data, print data, compute the bill amount.
*Create a class Calculation with main function create an object EB bill class get the data, display the amount or calling compute the bill amount() function.

Algorithm:

Step 1: Declare a class ElectricityBill with the following data members: Consumer number, Consumer name, Type of EB Connection(Domestic or Commercial), Previous month reading, Current month reading.

Step 2: Declare the constructors to pass the initial attributes.

Step 3: Declare the Calculation with main function.

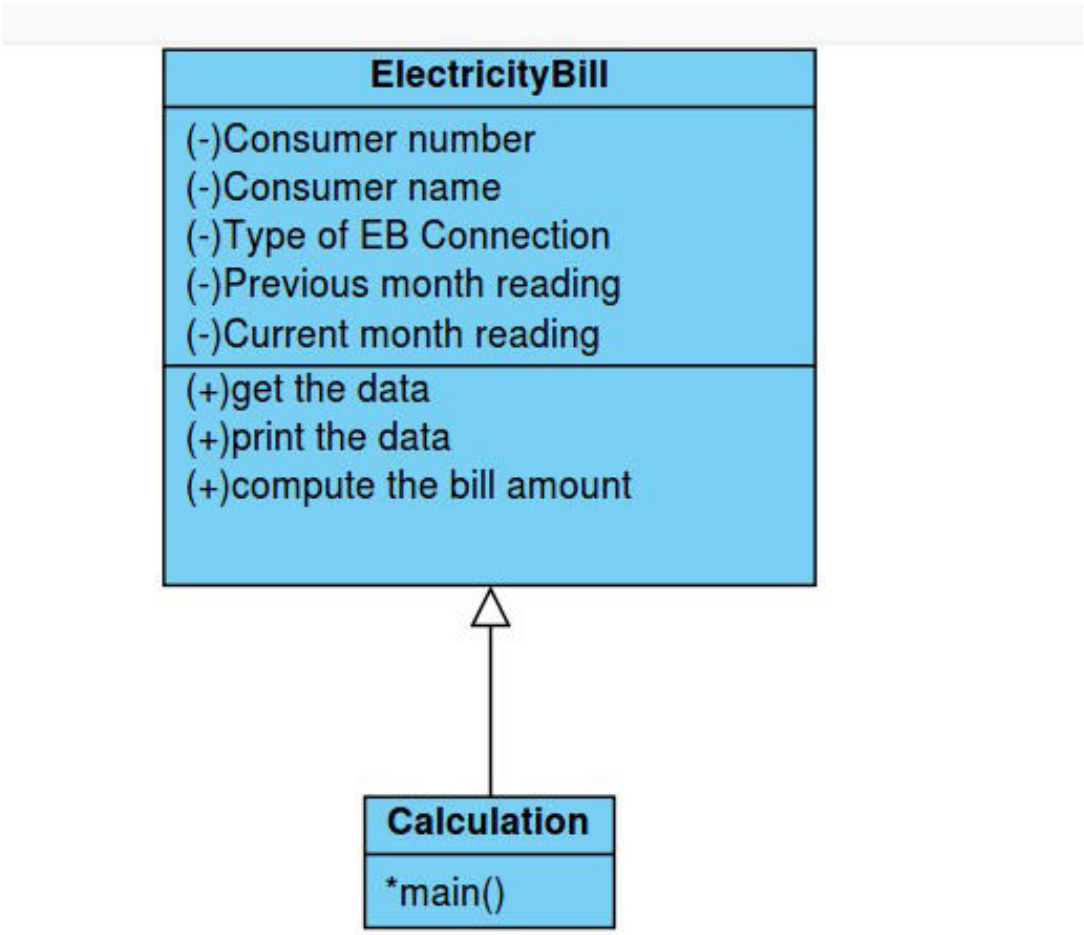
Step 4: Create the objects Consumer number, Consumer name, Type of EB Connection, Previous month reading, Current month reading.

Step 5: Get the data.

Step 6: Go for the Calculation.

Step 7: Display the EB Bill.

Class Diagram:



Program:

```
/**
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*/
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 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");
    }
}
package Billings;
public class Calculation{

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

}
```

Output:

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

                    BILLING INFORMATION
Enter the customernumber:771981
Enter the customername:MSD
Enter the Previous Month Reading:578
Enter the Current Month Reading:980
Enter the Customer type (Domestic,Commercial):Domestic

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

--------------------------------------------------------------------------------
                               SALE BILL
--------------------------------------------------------------------------------
CustomerNumber:771981
CustomerName:MSD
PreviousMonthReading:578
CurrentMonthReading:980
Customertype:Domestic
                Total Amount: 1608.00 Rs
```

Result:

*Thus, for the generation of Electricity bill, the Java program is created and executed.