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.

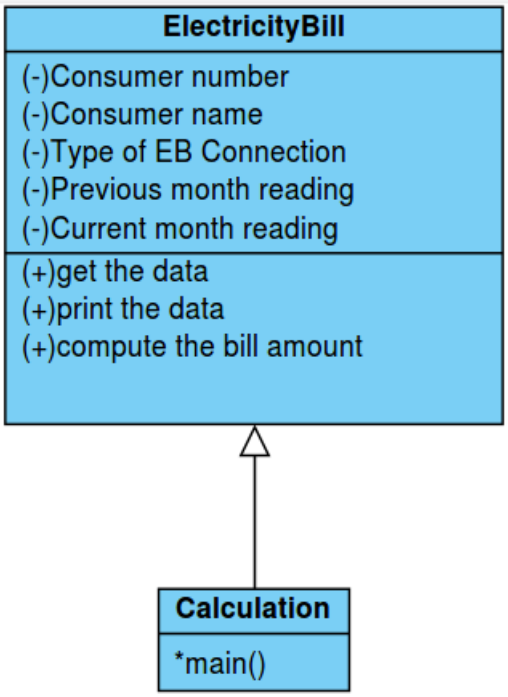
Step 4: Create the objects Consumer number, Consumer name, Type of EB Connection, Previous month reading, Current month reading.

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 consumernumber;
	private String consumername;
	private long previousmonthreading;
	private long currentmonthreading;
```

```
	private String consumertype;

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

	public ElectricityBill(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 consumenumber:");
		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:"+previousmonthrea
		ding);
		System.out.println("CurrentMonthReading:"+currentmonthreadi
		ng);
		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");
      }
}
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:

```
consumerNumber:1001
consumerName:Arun
PreviousMonthReading:90
CurrentMonthReading:110
consumertype:Domestic

                    BILLING INFORMATION
Enter the consumernumber:771981
Enter the consumername:MSD
Enter the Previous Month Reading:578
Enter the Current Month Reading:980
Enter the consumer type (Domestic,Commercial):Domestic

--------------------------------------------------------------------------------
---
                                SALE BILL
--------------------------------------------------------------------------------
---
consumerNumber:1001
consumerName:Arun
PreviousMonthReading:90
CurrentMonthReading:110
consumertype:Domestic
               Total Amount:   20.00 Rs
--------------------------------------------------------------------------------
---

--------------------------------------------------------------------------------
---
                                SALE BILL
--------------------------------------------------------------------------------
---
consumerNumber:771981
consumerName:MSD
PreviousMonthReading:578
CurrentMonthReading:980
consumertype:Domestic
               Total Amount: 1608.00 Rs
```

Result:

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