EX 01	ELECTRICITY BILL GENERATION
09-07-2019	

AIM:

To develop a java console application to generate electricity bill.

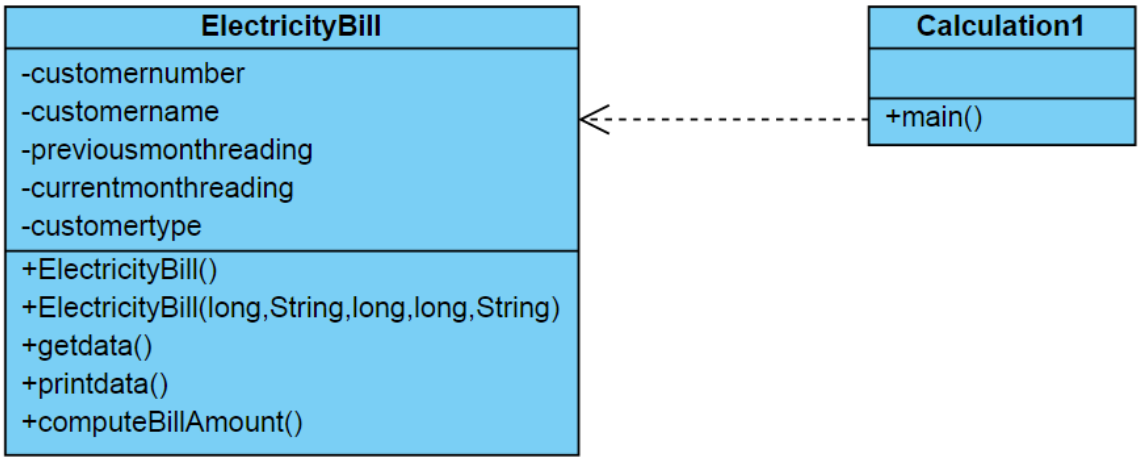
REQUIREMENT:

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:

ElectricityBilljava

```
/*developed by: Sanjai Kumar
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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 ElectricityBill()
        { this.customernumber =1000;
          this.customername= "Person";
          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 name: ");
          this.customername=sc.next();
          System.out.print("\nEnter the customer number: ");
          this.customernumber=sc.nextLong();
          System.out.print("\nEnter the customer
                                        type(domestic,commercial)");
    customertype=sc.next();
          System.out.print("\nEnter the customer last month reading: ");
          this.previousmonthreading=sc.nextLong();
          System.out.print("\nEnter the customer current month reading:
                                ");
          this.currentmonthreading=sc.nextLong();
        }
        public void printData()
        { System.out.printf("\nCustomer Number"+customernumber+"\nCustomer
                                        Name:"+customername );
```

```
        System.out.printf("\nPrevious Month Reading:
                "+previousmonthreading+"\nCurrent Month Reading:
                "+currentmonthreading+"\nCustomer Type: "+customertype);
        }
        public void ComputeBillAmount()
        { long unit=currentmonthreading-previousmonthreading;
    double billAmount=0;
        String spacing="----------";
        if (customertype.contentEquals("domestic"))
        { if((unit>=0)&&(unit<=100))
          billAmount=unit*1.0;
          else if((unit>101)&&(unit<=200))
                billAmount=unit*2.5;
          else if((unit>=201)&&(unit<=500))
                billAmount=unit*4.0;
          else
                billAmount=unit*6.0;
        }
        else if(customertype.contentEquals("commercial"))
        { if((unit>=0)&&(unit<=100))
                billAmount=unit*2.0;
          else if((unit>=101)&&(unit<=200))
                billAmount=unit*4.5;
          else if((unit>=201)&&(unit<=500))
                billAmount=unit*6.0;
          else
                billAmount=unit*7.0;
        }
        System.out.printf("\n"+spacing+"\n");
        System.out.print("SALE BILL");
        System.out.print("\n"+spacing+"\n");
    printData();
        System.out.printf("\nBill Amount: "+billAmount);
        System.out.print("\n"+spacing+"\n");
        }
}
```

Calculation1.java

```
package billings;
public class Calculations1 {
  public static void main(String[] args) {
        ElectricityBill E1,E2;
        E1=new ElectricityBill(100,"Alexa",200,400,"domestic");
        E2= new ElectricityBill();
        E2.getdata();
        E2.ComputeBillAmount();
  }
}
```

OUTPUT:

```
                BILLING INFORMATION:
Enter the customer name: XYZ
Enter customer number: 123
Enter previous month reading: 456
Enter current month reading: 789
Customer type(domestic,commercial): domestic

-----------------
  SALE BILL
-----------------
Customer number: 123
Customer Name: XYZ
Previous month reading:456
Current month reading: 789
Customer type: domestic
Total amount: 1332
-----------------
```

RESULT:

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