EX NO:01

DATE:08-07-19

ELECTRICITY BILL GENERATION

AIM:

To develop a java console application to generate Electricity Bill with consumer no,consumer name,previous month readings,current month readings and the connection type and display the result.

REQUIREMENT:

Create a class Electricity Bill with the following

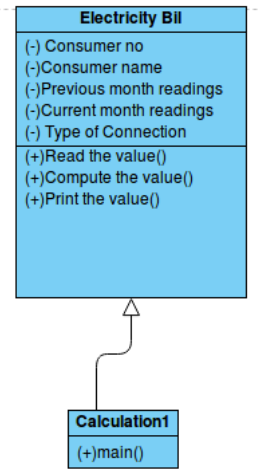
Data members:Consumer no,Consumer name,Previous month readings,Current month readings and the type of connection.

Member function:Read the value,Compute the value,Print the value.

ALGORITHM:

STEP1:Declare a package Electricity Bills.
STEP2:Declare a class name of Electricity Bills.
STEP3:Declare a constructors with initial attribute.
STEP4:Declare get data number and member function.
STEP5:Declare get class calculation,with a static main function.
STEP6:Create object with consumer name,consumer no,previous month readings,current monthreadings.
STEP7:Get the input from the user.
STEP8:Calculate the total Electricity Bills.
STEP9:Display result.

CLASS DIAGRAM:



PROGRAM:

ElectricityBill

```
/***
 * package for representing billing information
 *
 * Developed by A.sandhiya
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 *
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 */

package Billings;

import java.util.Scanner;

import javax.swing.Spring;
/***
 * Class to represent ElectricityBill
 *
 * @author A.sandhiya
 *
 */

   public class ElectricityBill {
        private long consumerno;
        private String consumername;
        private double previousmonthreadings;
        private String currentmonthreadings;
        private String typeofEBconnection;

        /***
         * To create ElectricityBill with initial values
         */
        public ElectricityBill()
        {
                this.consumerno=1000;
                this.consumername="unknown";
                this.previousmonthreadings=0;
                this.currentmonthreadings=0;
                this.typeofEBconnection="domestic";
        }

        /***
         *
         * @param number  Consumer no like 1001 etc
         * @param name Consumer name
         * @param previous month readings in units
         * @param current month readings in units
```

```
	 * @param type of EB connection domestic or commercial
	 */
	public ElectricityBill(long no,String name,double readings,double reading,String  type)
	{
		this.consumerno=no;
		this.consumername=name;
		this.previousmonthreadings=0;
		this.currentmonthreadings=0;
		this.typeofEBconnection="domestic";
	}

	/***
	 * To get billing information from the user
	 */
	public void getData()
	{
		Scanner sc=new Scanner(System.in);

		System.out.printf("\n%40s","BILLING INFORMATION");
		System.out.print("\nEnter the consumer no:");
		this.consumerno=sc.nextLong();
		System.out.print("Enter the consumer name:");
		this.consumername= sc.next();
		System.out.print("Enter the previous month readings:");
		this.previousmonthreadings=sc.nextDouble();

		System.out.print("Enter the EBconnection type (domestic or commercial):");
		this.currentmonthreadings=sc.next();
		System.out.println("Enter the current month readings:");
	   this.typeofEBconnection=sc.next(String);
/*****
	 * To print the bill details
	 */
	public void printData()
	{
		System.out.printf("%-40s%40s\n", "Consumer
no:"+consumerno,"ConsumerName:"+consumername);
		Object readings;
		System.out.printf("%s%8.2f %-16s %40s\n", "Previous month
readings:",readings,"units","typeofEBconnection":"+connectiontype);
		System.out.printf("%-40s", "Number LED lamps:"+quantity);
	}

	/***
	 * To calculate the bill amount
	 */
	public void computeBillAmount()
	{
		double totalAmount=-1;
		String divider="--------------------------------------------------------------------------------";

		if(customertype.equals("user"))
```

```
                {
                        if((quantity>=0)&& (quantity<=5))
                        {
                                totalAmount=quantity*250.0;
                        }else if((quantity>=6)&&(quantity<=10))
                        {
                                totalAmount=quantity*230.0;
                        }else if((quantity>=11)&&(quantity<=15))
                        {
                                totalAmount=quantity*215.0;
                        }else
                        {
                                totalAmount=quantity*200.0;
                        }
                }else if(customertype.equals("vendor"))
                {
                        if((quantity>=0)&& (quantity<=5))
                        {
                                totalAmount=quantity*230.0;
                        }else if((quantity>=6)&&(quantity<=10))
                        {
                                totalAmount=quantity*210.0;
                        }else if((quantity>=11)&&(quantity<=15))
                        {
                                totalAmount=quantity*195.0;
                        }else
                        {
                                totalAmount=quantity*180.0;
                        }
                }
                System.out.print("\n"+divider+"\n");
                System.out.printf("%40s", "SALE BILL");
                System.out.print("\n"+divider+"\n");
                this.printData();
                System.out.printf("%35s%10f Rs", "Total Amount:",totalAmount);
                System.out.print("\n"+divider+"\n");
        }
}
```

Calculation1

```
/******

 * To calculate the Sale bill amount

 *

 * Developed by

 * sandhiya

 *

 * sandhiyasandhiya123@gmail.com
```

```
 *

 */
package billings;


public class Calclation1 {


	public static void main(String[] args) {
		ElectricityBill bill1,bill2;


		bill1=new ElectricityBill(2001,"Kamal",100,200,"domestic");
		bill1.printData();
		bill2=new ElectricityBill();
		bill2.getData();
		bill1.computeBillAmount();
		bill2.computeBillAmount();
	}


}
```

OUTPUT:

Consumer no:68767564.
Consumer name:sandhiya.
Previous month readings:67watts.
Current month readings:78watts.
Type of Connection:Domestic.
Total amount: -1.

RESULT:

Thus a java console application is developed to find the overall Electricitry Bills.