EX NO:01

DATE:08-07-19

ELECTRICITY BILL GENERATION

AIM:

To develop the java console application to generate electricity bill with consumer no,consumer name,previous month readings,present month readings,connection type and display the result.

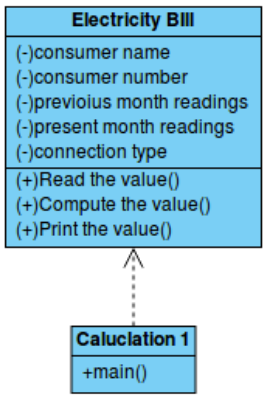
Requirement:

Create a class electricity bill with the following
Data members: consumer no,consumer name,previous month readings,present month readings and connection type
Member function: Read the value,compute the value,print the values.

ALGORITHUM:

Step1: Declare a package electricity bill.
Step2: Declare a class name of electricity bill.
Step3: Declare a constructor with intial attribute.
Step4: Declare get data members and members function.
Step5: Declare class calculation 1 with a static main function.
Step6: Ceate object with consumer no,consumer name,previous month readings,present month readings and connection type.
Step7:Get the input from user.
Step8:Calculate the total electricity bill.
Step9:Display result.

CLASS DIAGRAM:



PROGRAM:

Electricity Bill.java

```
/*****
 * Package for representing billing information
 *
 * Developed by n.pavithra
 * student,Saveetha Engineering College.
 *
 * npavithra1405@gmail.com
 */
package billings;

import java.util.Scanner;

/****
 * Class to represent generating of Electricity bill
 *
 * @author N.pavithra
 *
 */
public class ElectricityBill {
	private long consumernumber;
	private String consumername;
	private double previousmonthreadings;
	private double presentmonthreadings;
	private String connectiontype;

	/***
	 * To create Electricity Bill with initial values
	 */
	public ElectricityBill()
	{
		this.consumernumber=1000;
		this.consumername="unknown";
		this.previousmonthreadings=10;
		this.presentmonthreadings=10;
		this.connectiontype="domastic";
	}
	public ElectricityBill(long number,String name,double previous,double present,String type)
	{
		this.consumernumber=number;
		this.consumername=name;
		connectiontype=type;
		previousmonthreadings=previous;
		presentmonthreadings=present;
	}

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

```
		System.out.printf("\n%40s","ELECTRICITY BILL");
		System.out.print("\nEnter the consumer number:");
		this.consumernumber=sc.nextLong();
		System.out.print("Enter the consumer name:");
		consumername= sc.next();
		System.out.print("Enter the type of EB connection(DOMASTIC OR
COMMERCIAL:");
		connectiontype=sc.next();
		System.out.print("Enter the previous month reading:");
		previousmonthreadings=sc.nextInt();
		System.out.println("Enter the present month reading:");
		presentmonthreadings=sc.nextInt();

	}

	/*****
	 * To print the electricity bill details
	 */
	public void printData()
	{
		System.out.printf("%-40s%40s\n", "consumer
Number:"+consumernumber,"consumerName:"+consumername);
		System.out.printf("%s%8.2f %-16s %40s\n", "Previous month readings:",
+previousmonthreadings,"Watts","type of EB connection:"+connectiontype);
		System.out.printf("%-40s", "present month readings:"+presentmonthreadings);
	}

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

		if(connectiontype.equals("DOMASTIC"))
		{
			if((quantity>=0)&& (quantity<=100))
			{
				totalAmount=quantity*1;
			}else if((quantity>=101)&&(quantity<=200))
			{
				totalAmount=quantity*2.50;
			}else if((quantity>=201)&&(quantity<=500))
			{
				totalAmount=quantity*4;
			}else
			{
				totalAmount=quantity*6;
			}
```

```
		}else if(connectiontype.equals("COMMERSIAL"))
		{
			if((quantity>=0)&& (quantity<=100))
			{
				totalAmount=quantity*2;
			}else if((quantity>=101)&&(quantity<=200))
			{
				totalAmount=quantity*4.50;
			}else if((quantity>=201)&&(quantity<=500))
			{
				totalAmount=quantity*6;
			}else
			{
				totalAmount=quantity*7;
			}
		}
		System.out.print("\n"+divider+"\n");
		System.out.printf("%40s", "ELECTRICITY BILL");
		System.out.print("\n"+divider+"\n");
		this.printData();
		System.out.printf("%29s%8.2f Rs", "Total Amount:",totalAmount);
		System.out.print("\n"+divider+"\n");
	}
}
```

calculation 1.java

```
/******
 * To calculate the Sale bill amount
 *
 * Developed by
 * N.pavithra
 *
 * npavithra1405@gmail.com
 *
 */
package billings;

public class Caluclation1 {

	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 Number:6342342 consumerName:vijay
Previous month readings: 67.00 Watts type of EB connection:DOMASTIC
present month readings:87.0 Total Amount: 20.00 Rs

RESULT:

Thus the java console application is developed to generate electricity bill.