EXPT:1

ELECTRICITY BILL GENERATION

DATE:09/07/2019

AIM:

To develop a java console application to generate electricity bill.

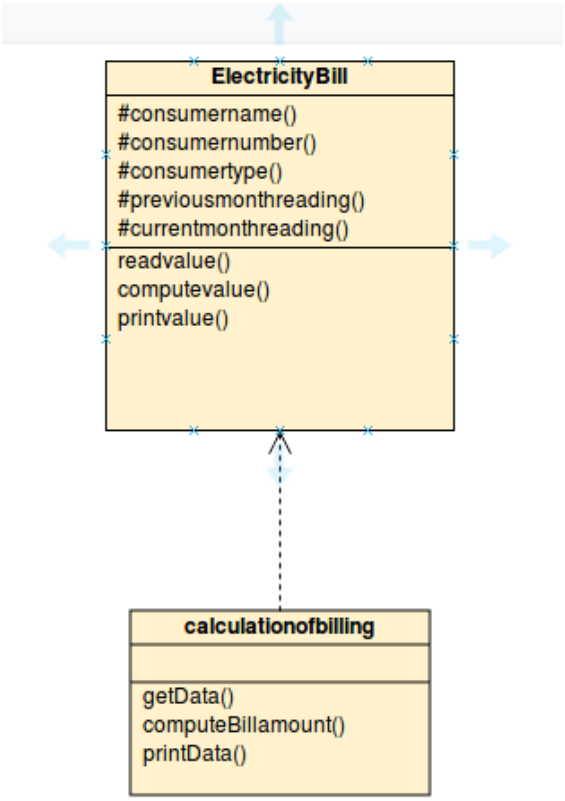
REQUIREMENTS:

● Develop a java application to create a package billings and to create a class electricity bill with the data members, consumer number,consumer name,previous month reading,current month reading,connection type.
● Member functions :get data,print data,compute bill amount and constructors.
● Create a class calculation with main function,create object of electricity bill class, get the data and display the bill amount by calling computebillamount() function.

ALGORITHM:

STEP 1: create a package named billings containing Electricity bill,Calculation.
STEP 2: Under Electricity bill use the attributes consumer name,consumer number, previous month reading,current month reading,consumer type.
STEP 3: Pass two constructors one with parameters and the other without parameters,for electricity bill.
STEP 4: Under the class get data write suitable code to get the information the user.
STEP 5: Under the class print data write suitable code to print the data as per the requirement.
STEP 6: Under the class CalculateBillamount,perform necessary computations using suitable code as per requirement.
STEP 7: Under Calculationofbilling create two new variables of the type electricity bill.
STEP 8: Pass constructor parameters and print the ststements.
STEP 9: Get required information from user ,compute them and finally print the result.

CLASS DIAGRAM:



PROGRAM:

```
//** PROGRAM TO GENERATE ELECTRIVITY BILL**//
//**DEVELOPED BY HARIHARAN**//

public class Calculationofbilling
{
public static void main(String[] args)
{
ElectricityBill E1,E2;
E1=new ElectricityBill(1000,"hari",1010,1329,"Domestic");
E1.printData();
E2=new ElectricityBill();
E2.getdata();
E1.computeBillamount();
E2.computeBillamount();
}
```

```
}

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=50000;
this.customername="hari";
this.previousmonthreading=54;
this.currentmonthreading=35;
this.customertype="domestic";
}
public ElectricityBill(long numbers,String name,long pm,long cm ,String type)
{
this.customernumber=numbers;
this.customername=name;
previousmonthreading=pm;
currentmonthreading=cm;
customertype=type;
}
public void getdata()
{
Scanner sc=new Scanner(System.in);
System.out.printf("\n%40s","BILLING INFORMATION");
System.out.print("\nEnter the customer number:");
this.customernumber=sc.nextLong();
System.out.print("Enter the customer name:");
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.print("Customer Number:"+customernumber+"
"+"CustomerName:"+customername+" ");
System.out.print("PreviousMonthReading:"+previousmonthreading+"
"+"CurrentMonthReading:"+currentmonthreading+" "+"Customer Type:"+customertype);
}
public void computeBillamount()
{
long unit=currentmonthreading-previousmonthreading;
double 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");
}
}
```

OUTPUT:

BILLING INFORMATION

Enter the customer number: 1010
Enter the customer name: Hari
Enter the Previous Month Reading: 123
Enter the Current Month Reading: 321
Enter the Customer type (Domestic/Commercial): domestic

SALE BILL

Customer Number: 000
CustomerName: hari
PreviousMonthReading: 1010
CurrentMonthReading: 329

Customer Type:Domestic

Total Amount: 1276.00 Rs

RESULT:

Hence a java application was crated and executed to generate electricity bill.