

DATE:

EXP NO:01

ELECTRICITY BILL

AIM:-

To develop a java console application to generate ElectricityBill and to create a package billing and to create a class ElectricityBill with the following members:customer no,customer name,previous month reading,current month reading,type

REQUIREMENTS:

Create a class ElectricityBills with the following Data members:customer no,customer name,previous month reading,current month reading,type Member function: Read the value,compute the value,print the value

ALGORITHM:

STEP1:Declare a package Billings

STEP2:Declare a class name ElectricityBill

STEP3:Declare a constructor with initial attribute

STEP4:Declare a data member and a member function

STEP5:Declare a class Calculation1 with static main function

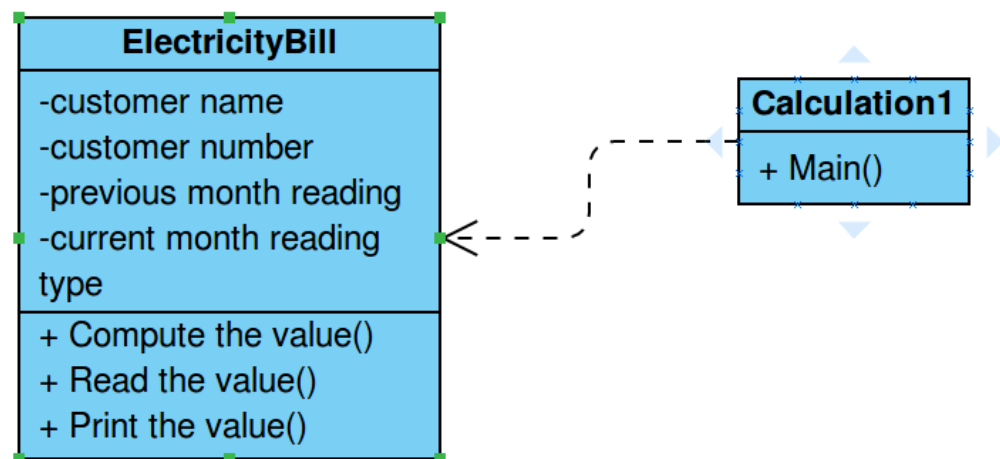
STEP6:Create object of type with customer name,customer no,previous month reading,current month reading,customer type(Domestic or Commercial)

STEP7:Get the input from the user

STEP8:Calculate the total electricity billing

STEP9:Display result

FLOW CHART:



PROGRAMME:

ElectricityBill.java

```
/**created by m.uday kanth, eee-B
 * mail id:-udaykanth67@gmail.com
 */
package Billings;
import java.util.Scanner;
public class ElectricityBill
```

```

private long customernumber;
private String customername;
private double previousmonthreading;
private double currentmonthreading;
private String customertype;
/**
 * to create electricity bill with initial values
 */
public ElectricityBill(){
this.customernumber=1000;
this.customername="unknown";
this.currentmonthreading=0;
this.previousmonthreading=0;
this.customertype="Domestic";
}
public ElectricityBill(long number,String name,double c_reading,double p_reading,String type){
    this.customernumber=number;
    this.customername=name;
    currentmonthreading=c_reading;
    previousmonthreading=p_reading;
    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:");
    customername= sc.next();
    System.out.print("Enter the current month reading:");
    currentmonthreading=sc.nextDouble();
    System.out.print("Enter the previous month reading");
    previousmonthreading=sc.nextDouble();
    System.out.print("Enter the customer type (Domestic or Commercial):");
    customertype=sc.next();
}
/**
 * to print the bill details
 */
public void printData(){
System.out.printf("%-40s
%40s\n","CustomerNumber:"+customernumber,"CustomerName:"+customername);
System.out.printf("%s%8.2f%s%8.2f%-16s%40s\n","currentmonth
reading:",currentmonthreading,"previous month
reading:",previousmonthreading,"CustomerType:",customertype);
}
/**
 * to get the total amount
 */
public void computeBillAmount(){
    double totalAmount=-1;

```

```

double unitsconsumed;
String divider="-----";

unitsconsumed=currentmonthreading-previousmonthreading;
if(customertype.equals("Domestic"))
{
    if((unitsconsumed>=0)&& (unitsconsumed<=100))
    {
        totalAmount=unitsconsumed*1.0;
    }else if((unitsconsumed>=101)&&(unitsconsumed<=200))
    {
        totalAmount=unitsconsumed*2.50;
    }else if((unitsconsumed>=201)&&(unitsconsumed<=500))
    {
        totalAmount=unitsconsumed*4.0;
    }else
    {
        totalAmount=unitsconsumed*6.0;
    }
}else if(customertype.equals("Commercial"))
{
    if((unitsconsumed>=0)&& (unitsconsumed<=100))
    {
        totalAmount=unitsconsumed*2.0;
    }else if((unitsconsumed>=101)&&(unitsconsumed<=200))
    {
        totalAmount=unitsconsumed*4.50;
    }else if((unitsconsumed>=201)&&(unitsconsumed<=500))
    {
        totalAmount=unitsconsumed*6.0;
    }else
    {
        totalAmount=unitsconsumed*7.0;
    }
}
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");
}
}

```

Calculation1.java

```

/**created by m.uday kanth, eee-B
 * mail id:-udaykanth67@gamil.com
 *
 */
package Billings;
public class Calculation1 {
    public static void main(String[] args) {

```

```

        ElectricityBill bill1,bill2;
        bill1=new ElectricityBill(2001,"Kamal",0,0,"Domestic");
        bill1.printData();
        bill2=new ElectricityBill();
        bill2.getData();
        bill1.computeBillAmount();
        bill2.computeBillAmount();
    }
}

```

OUTPUT:-

Customer Number:2001 CustomerName:Kamal
current month reading:0.00 previous month reading:-0.00 customer type:-domestic

BILLING INFORMATION

Enter the customer number:1234
Enter the customer name:uday
Enter the current month reading:253
Enter the previous month reading:145
Enter the customer type (Domestic or Commercial):domestic

Electricity BILL

Customer Number:2001 CustomerName:Kamal
current month reading: 0.00 previous month reading: 0.00 CustomerType:
Domestic
Total Amount: 0.00 Rs

Electricity BILL

Customer Number:1234 CustomerName:uday
current month reading: 253.00 previous month reading: 145.00 CustomerType:
domestic
Total Amount: -1.00 Rs

RESULT: -

Hence, as per requirement electricity bill is generated with previous month reading and current month reading by using java.

