EXP NO:1
DATE:09-07-2019

ELECTRICITY BILL GENERATION

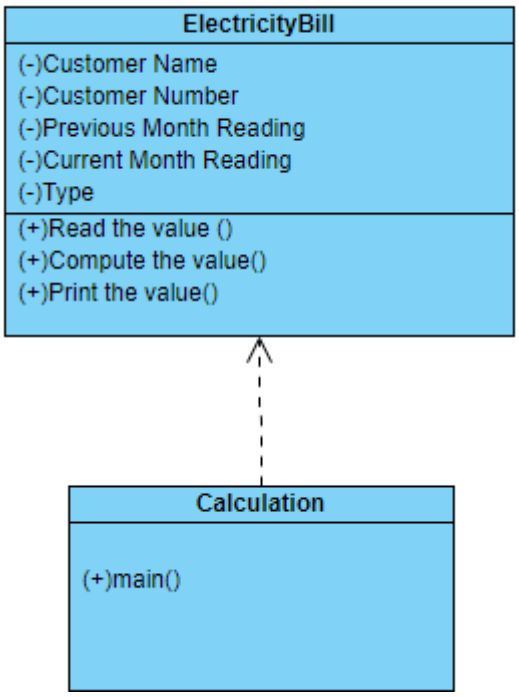
AIM: To develop a java console application to find the electricity bill based on the type of EB connection.

REQUIREMENT: Develop a java application to create a package billings and to create a class ElectricityBill with the data members as customer number,customer name,previous month reading,current month reading,type.
member functions are get data,print data,compute bill amount and constructors.create a class Calculation with main function,create object of ElectricityBill class,get the data and display the bill amount by calling compute bill amount() function.

ALGORITHM:

1. Declare a package billings.
2. Declare a class name ElectricityBill.
3. Declare a constructor with initial attributes.
4. Declare a data member and member function.
5. Declare a class Calculation with static main function.
6. Create object or type with customer name,customer number,previous month reading,current month reading,customer type.
7. Get input from user.
8. Calculate the total electricity bill.
9. Display the result.

CLASS DIAGRAM:



PROGRAM:

```
package billings;
import java.util.Scanner;
/****
* Class to show the electricity bill
*
* @author B.karthik
*
*/

public class ElectricityBill {
private long customernumber;
private String customername;
private String customertype;
private double lastmonthreading;private double currentmonthreading;

/***
* To create sale bill with initial values
*/

public ElectricityBill()
{
this.customernumber=1000;
this.customername="unknown";
this.customertype="domestic";
this.lastmonthreading=100;
this.currentmonthreading=0;
}
public ElectricityBill(long number,String name,String type,double previous,double
current)
{
this.customernumber=number;
this.customername=name;
customertype=type;
lastmonthreading=previous;
currentmonthreading=current;
}

/***
* To get electricity bill from the user
*/

public void getData()
{
Scanner sc=new Scanner(System.in);
System.out.printf("\n%40s","ELECTRICITY BILL");
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 type of EB connection(DOMESTIC OR COMMERCIAL:");
customertype=sc.next();
```

```
System.out.print("Enter the last month coustomer reading :");
lastmonthreading=sc.nextInt();
System.out.println("Enter the current month coustomer reading:");
currentmonthreading=sc.nextInt();
}

/*****
* To print the electricity bill details
*/

public void printData()
{
System.out.printf("%-40s%40s\n", "Customer
Number:"+customernumber,"CustomerName:"+customername);
System.out.printf("%s40%s %-16s %f\n", "Type of EB
Connection:",customertype,"last month reading:",lastmonthreading);
System.out.printf("%-40s", "current month reading:"+currentmonthreading);
}

/***
* To calculate the electricity bill amount*/

public void computeBillAmount()
{
double totalAmount=-1;
double quantity=currentmonthreading-lastmonthreading;
String
divider="--------------------------------------------------------------------------
-----";
if(customertype.equals("DOMESTIC"))
{
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(customertype.equals("COMMERCIAL"))
{
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:

```
/******
* To calculate the electricity bill amount
** Developed by
* b.karthik
*
* karthikbhaskar2000@gmail.com
*
*/

package billings;
public class calculation {
public static void main(String[] args) {
ElectricityBill bill1,bill2;
bill1=new ElectricityBill(2000,"kamal","domestic",100,200);
bill1.printData();
bill2=new ElectricityBill();
bill2.getData();
bill1.computeBillAmount();
bill2.computeBillAmount();
}
}
```

OUTPUT:

```
Customer Number:2000
CustomerName:kamal
Type of EB Connection:40domestic last month reading: 100.000000current month reading:200.0
ELECTRICITY BILL
Enter the customer number:212217105011
Enter the customer name:B.KARTHIK
Enter the type of EB connection(DOMESTIC OR COMMERCIAL:COMMERCIAL
Enter the last month coustomer reading :250
Enter the current month coustomer reading:576
--------------------------------------------------------------------------------
ELECTRICITY BILL
--------------------------------------------------------------------------------
```

Customer Number:2000
CustomerName:kamal
Type of EB Connection:40domestic last month reading: 100.000000
current month reading:200.0
Total Amount:-1.00 Rs

ELECTRICITY BILL

Customer Number:212217105011
CustomerName:B.KARTHIK
Type of EB Connection:40COMMERCIAL last month reading: 250.000000
current month reading:576.0
Total Amount: 1956.00 Rs

RESULT:

Thus a java console application is developed to find the electricity bill of an user based on the EB connection.