GENERATING ELECTRICITY BILL

AIM:

To Develop a Java application to generate Electricity bill.

ALGORITHM:

1. Import the java packages.
2. Create a class with members Consumer no., consumer name, previous month reading, current month reading, type of EB connection (i.e domestic or commercial).
3. Class also contains methods domesticbillcalc and commercialbillcalc with its parameters to compute bill amount.
4. Check whether the type of connection is domestic or commercial.
   If domestic, calculate the bill amount as follows:
   First 100 units - Rs. 1 per unit
   101-200 units - Rs. 2.50 per unit
   201 -500 units - Rs. 4 per unit
   > 501 units - Rs. 6 per unit
   If commercial, calculate the bill amount as follows:
   First 100 units - Rs. 2 per unit
   101-200 units - Rs. 4.50 per unit
   201 -500 units - Rs. 6 per unit
   > 501 units - Rs. 7 per unit
5. Calculate the units consumed by finding the differences between previous month reading and current month reading.
6. By using Scanner class get the input during runtime.
7. Create object for a class in memory and assign it to the reference variable, then the method is invoked.
8. Finally, the bill amount is displayed based on type of connection.

PROGRAM:

*//File Name should be Saved as **Ebbill.java***

```
import java.io.*; import
java.util.*; class
ElectricityBill
{
```

```
    double bill;
    double domesticbillcalc (int units)
    {
       if(units<100)
bill = units * 1 ;
else if(units <= 200)
         bill = 100 * 1 + (units - 100) * 2.50 ;
else if(units <= 500)
         bill = 100 * 1 + 200 * 2.50 + (units - 200) * 4 ;
else
          bill = 100 * 1 + 200 * 2.50 + 500 * 4 + (units - 500) * 6 ;
return bill;
    }
    double commercialbillcalc (int units)
    {
       if(units<100)
bill = units * 2 ;          else
if(units <= 200)
         bill = 100 * 1 + (units - 100) * 4.50 ;
else if(units <= 500)
         bill = 100 * 1 + 200 * 4.50 + (units - 200) * 6 ;
else
          bill = 100 * 1 + 200 * 4.50 + 500 * 6 + (units - 500) * 7 ;
return bill;
    }
    void show(String ptype,String consno,String consname,int pmr,int cmr,int units)
    {
       System.out.println("Type of Connection : " + ptype);
       System.out.println("Consumer Number : " + consno);
       System.out.println("Customer Name : " + consname);
       System.out.println("Previous Month Reading  : " + pmr);
       System.out.println("Current Month Reading  : " + cmr);
       System.out.println("Units Consumed  : " + units);
    }
}

class Ebbill
{
  public static void main(String[] args)
  {
     Scanner c = new Scanner(System.in);
```

```
        System.out.println("Enter the Type of Connection :");
       String ptype=c.next();
        System.out.println("Enter the Consumer Number :");
        String consno=c.next();
        System.out.println("Enter the Consumer Name :");
       String consname=c.next();
        System.out.println("Enter the Previous Month Reading :");
int pmr=c.nextInt();
        System.out.println("Enter the Current Month Reading :");
        int cmr=c.nextInt();
int units =  cmr-pmr;
        ElectricityBill b = new ElectricityBill();
        if(ptype.equalsIgnoreCase("DOMESTIC"))
        {
         b.show(ptype,consno,consname,pmr,cmr,units);
         b.domesticbillcalc(units);
         System.out.println("Bill to pay : " + b.bill);
         }
       else if(ptype.equalsIgnoreCase("COMMERCIAL"))
        {
         b.show(ptype,consno,consname,pmr,cmr,units);
         b.commercialbillcalc(units);
         System.out.println("Bill to pay : " + b.bill);
        }
  }
}
```

NOTE:

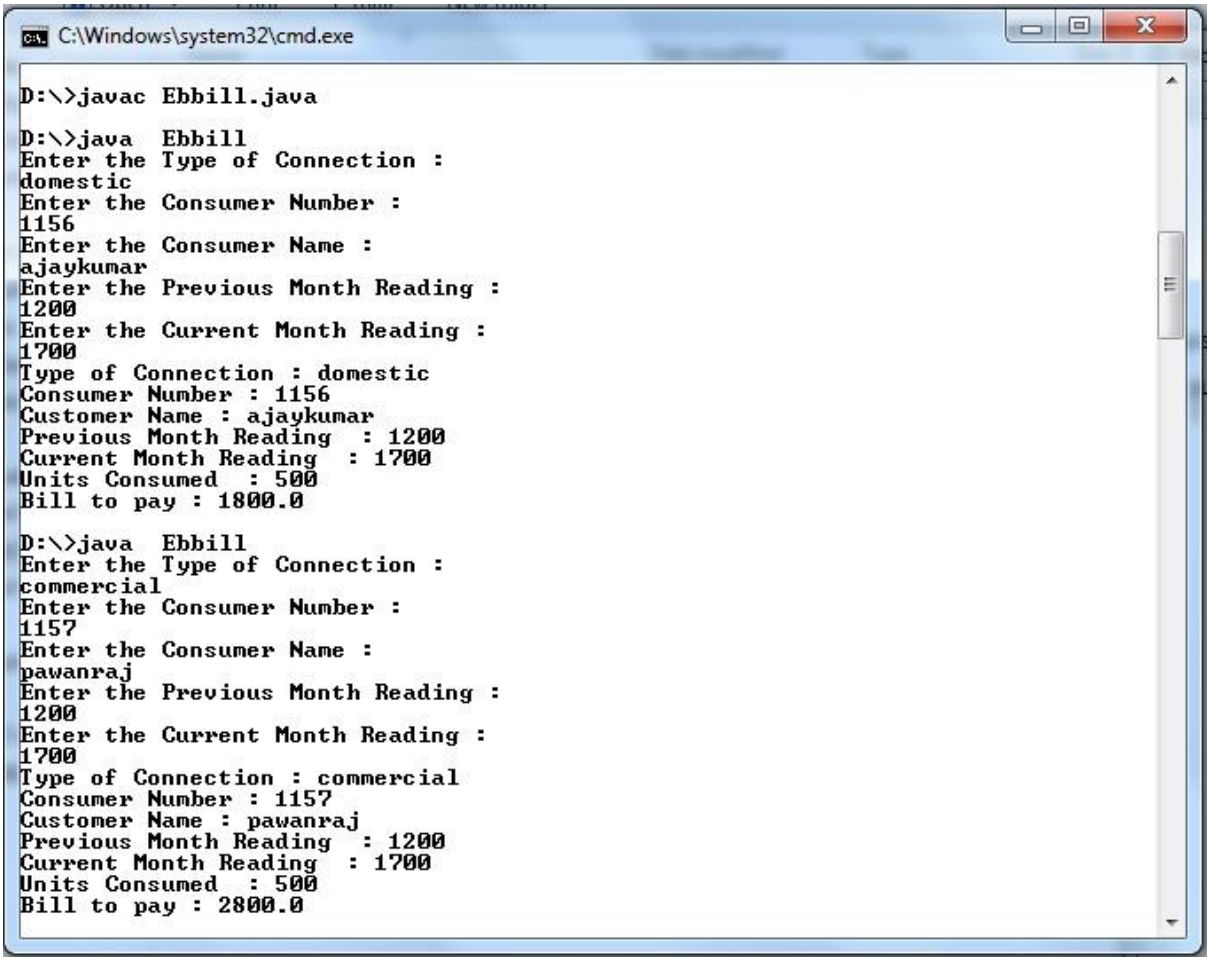
To Compile,

javac Ebbill.java To

Run

java Ebbill

OUTPUT:


C:\Windows\system32\cmd.exe
D:\>javac Ebbill.java
D:\>java Ebbill
Enter the Type of Connection :
domestic
Enter the Consumer Number :
1156
Enter the Consumer Name :
ajaykumar
Enter the Previous Month Reading :
1200
Enter the Current Month Reading :
1700
Type of Connection : domestic
Consumer Number : 1156
Customer Name : ajaykumar
Previous Month Reading : 1200
Current Month Reading : 1700
Units Consumed : 500
Bill to pay : 1800.0
D:\>java Ebbill
Enter the Type of Connection :
commercial
Enter the Consumer Number :
1157
Enter the Consumer Name :
pawanraj
Enter the Previous Month Reading :
1200
Enter the Current Month Reading :
1700
Type of Connection : commercial
Consumer Number : 1157
Customer Name : pawanraj
Previous Month Reading : 1200
Current Month Reading : 1700
Units Consumed : 500
Bill to pay : 2800.0

RESULT:

Thus the application for generating Electricity bill has been successfully executed.