Title:- Calculation of Electricity bill

**Problem statement:-** Write a java program to calculate electricity bill of a costumer. It considers all the components of bill formation like minimum bill for a meter, tax, additional usage fine etc.

**Objectives Of Defined Problem Statement: -**

* 1. The main objective of the program is to calculate the electricity bill. In this program customers are classified into three types 1. Industrial user, 2. Commercial user and 3. Public user.
  2. The Industrial user is having 1000 rupees as maintenance charge and amount to be paid is calculated using formula
  3. The Commercial user is having 300 rupees as maintenance charge and amount to be paid is calculated using formula
  4. The public user is having 300 rupees as maintenance charge and up amount to be paid is calculated using formula
  5. For termination of the program user must enter the choice as 4 then the program comes to an end by displaying appropriate message.

**Methodology (pseudo code): -**

Display the choices

Step 1: INDUSTRIAL USER 2:COMMERCIAL USER 3:PUBLIC USER

Step 2: Input of choice

Step 3: Switch(choice)

Case 1:- input of units used

If units up to 1500

Calculate amt =1000+(8\*unit)

Else If units from 1500 to 3500

Calculate amt =1000+(9\*unit)

Else If units from 3500 to 5000

Calculate amt =1000+(10\*unit)

Else if units above 5000

Calculate amt =1000+(12\*unit)

Break

Case 2:- input of units used

If units up to 1000

Calculate amt =500+(6\*unit)

Else If units from 1000 to 1500

Calculate amt =500+(7\*unit)

Else If units from 1500 to 2500

Calculate amt =500+(8\*unit)

Else if units above 2500

Calculate amt =500+(10\*unit)

Break

Case 3 :- input of units used

If units up to 100

Calculate amt =300+(3\*unit)

Else If units from 100 to 350

Calculate amt =300+(4\*unit)

Else If units from 350 to 500

Calculate amt =300+(5\*unit)

Else if units above 500

Calculate amt =300+(8\*unit)

Break

End of switch

Step 4: Display amount

End of for

Step 5:- End

**Implementation details:-**

package pro;

import static java.lang.System.exit;

import java.util.Scanner;

public class Pro {

public static void main(String[] args) {

int amt=0,unit=0;

Scanner scan =new Scanner (System.in);

For ( ; ;) {

System.out.println(" 1: INDUSTRIAL USER

2: COMMERCIAL USER 3: PUBLIC USER 4: EXIT " ); /\* display the choices \*/

System.out.println("ENTER YOUR CHOICE");

int var = scan.nextInt (); /\* Input of choice \*/

switch(var){

case 1: System.out.println("Enter the units used");

unit=scan.nextInt(); /\* input of units used \*/

if(unit<=1500)

{

amt=1000+(8\*unit); /\* calculate amount\*/

}

else if(unit>1499 && unit<3500)

{

amt=1000+(9\*unit); /\* calculate amount\*/

}

else if(unit>3499 && unit<5000)

{

amt=1000+(10\*unit); /\* calculate amount\*/

}

else if(unit>=5000)

{

amt=1000+(12\*unit); /\* calculate amount\*/

}

break;

case 2: System.out.println("Enter the units used");/\* input of units used \*/

unit=scan.nextInt();

if(unit<=1000)

{

amt=500+(6\*unit); /\* calculate amount\*/

}

else if(unit>999 && unit<1500)

{

amt=500+(7\*unit); /\* calculate amount\*/

}

else if(unit>1499 && unit<2500)

{

amt=500+(8\*unit); /\* calculate amount\*/

}

else if(unit>=2500)

{

amt=500+(10\*unit); /\* calculate amount\*/

}

break;

case 3: System.out.println("Enter the units used");

unit=scan.nextInt(); /\* input of units used \*/

if(unit<=100)

{

amt=300+(3\*unit); /\* calculate amount\*/

}

else if(unit>99 && unit<350)

{

amt=300+(4\* unit); /\* calculate amount\*/

}

else if( unit>350 && unit<500)

{

amt=300+(5\* unit); /\* calculate amount\*/

}

else if( unit>=500)

{

amt=300+(8\* unit); /\* calculate amount\*/

}

break;

case 4:System.out.println("");

System.out.println("THANK YOU");

Exit (0) ; /\*terminating the program \*/

default:System.out.println("INVALID CHOICE");

}

System.out.println("--------------------------------------------------");

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("-------------------------------------------------");

System.out.println(" H E S C O M ");

System.out.println(" ELECTRICITY BILL ");

System.out.println();

System.out.println("NUMBER OF UNIT(S) USED = "+unit+" units" );/\*\*/

System.out.println("THE AMOUNT TO BE PAID IS = Rs."+amt ); /\*display amount \*/

System.out.println();

System.out.println(" THANK YOU ");

System.out.println("--------------------------------------------------");

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("-------------------------------------------------");

System.out.println();

}

}

}

**Working model of the final solution**:-





