**CS 2803 – Object Oriented Programming Lab**

**Assignment 1**

Name: Gokul Nishandh S T Date: 22/07/2024

Roll No: 23011101040

**Question 1:**

Develop a Java application to generate Electricity bill. Create a class with the following members: Consumer no., consumer name, previous month reading, current month reading, type of EB connection (i.e domestic or commercial). Compute the bill amount using the following tariff.

If the type of the EB connection is domestic, calculate the amount to be paid 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 the type of the EB connection is commercial, calculate the amount to be paid 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

**Algorithm:**

1. Create a class named consumer
2. It has data members as consumer number, name, type, previous month reading, current month reading.
3. Create a member function to get input from the user.
4. Get the input for name, type, previous month reading and current month reading.
5. Create another member function calculate, to calculate the bill using given conditions.
6. Print the final current bill by calling these functions in the main

**Code:**

import java.io.\*;

import java.util.\*;

class consumer{

int cun\_no;

float pre\_month\_reading,current\_month\_reading;

String name,type;

void get\_input()

{

Scanner sc=new Scanner(System.in);

System.out.print("Enter the consumer name:" );

name=sc.nextLine();

System.out.print("Enter the EB connection type:" );

type=sc.nextLine();

System.out.print("Enter the consumer number:" );

cun\_no=sc.nextInt();

System.out.print("Enter the previous month reading:" );

pre\_month\_reading=sc.nextFloat();

System.out.print("Enter the current moonth reading:" );

current\_month\_reading=sc.nextFloat();

}

float calculate()

{

if(type.equals("domestic")){

if(current\_month\_reading<=100)

{

return current\_month\_reading;

}

else if (current\_month\_reading>100 && current\_month\_reading<=200)

{

return current\_month\_reading\*2.5f;

}

else if(current\_month\_reading>200 && current\_month\_reading<=500)

{

return current\_month\_reading\*4;

}

else if(current\_month\_reading>500)

{

return current\_month\_reading\*6;

}

}

else if (type.equals("commercial"))

{

if(current\_month\_reading<=100)

{

return current\_month\_reading\*2;

}

else if (current\_month\_reading>100 && current\_month\_reading<=200)

{

return current\_month\_reading\*4.5f;

}

else if(current\_month\_reading>200 && current\_month\_reading<=500)

{

return current\_month\_reading\*6;

}

else if(current\_month\_reading>500)

{

return current\_month\_reading\*7;

}

}

return 0;

}

public static void main(String args[])

{

consumer con=new consumer();

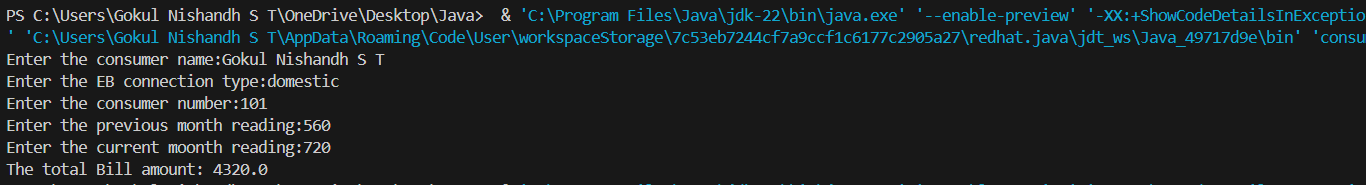
con.get\_input();

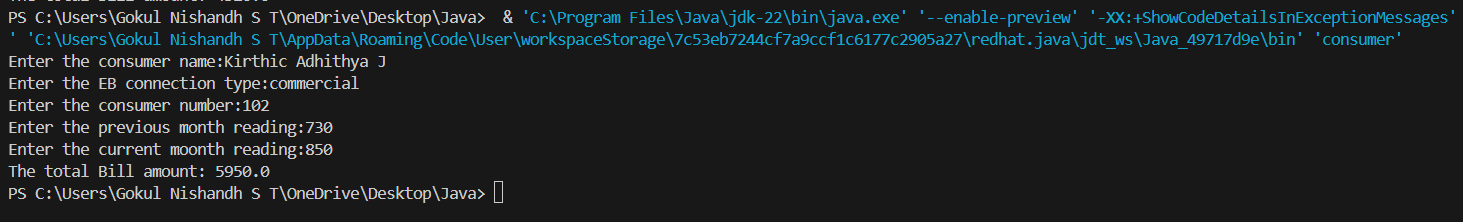
System.out.println("The total Bill amount: "+con.calculate());

}

}

**Output:**

****

****