**ELECTRICITY BILL CALCULATION USING CLASS AND OBJECT**

import java.util.Scanner;

public class ElectricityBill {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("--- Electricity Bill Calculation ---");

System.out.print("Enter Consumer Number: ");

int consumerNo = scanner.nextInt();

scanner.nextLine();

System.out.print("Enter Consumer Name: ");

String consumerName = scanner.nextLine();

System.out.print("Enter Previous Month Reading (units): ");

double previousReading = scanner.nextDouble();

System.out.print("Enter Current Month Reading (units): ");

double currentReading = scanner.nextDouble();

scanner.nextLine();

System.out.print("Enter Type of EB Connection (Domestic/Commercial): ");

String connectionType = scanner.nextLine();

BillCalculator billCalculator = new BillCalculator(consumerNo, consumerName, previousReading, currentReading, connectionType);

billCalculator.calculateBill();

billCalculator.displayBill();

scanner.close();

}

}

class BillCalculator {

private int consumerNo;

private String consumerName;

private double previousReading;

private double currentReading;

private String connectionType;

private double unitsConsumed;

private double billAmount;

public BillCalculator(int consumerNo, String consumerName, double previousReading, double currentReading, String connectionType) {

this.consumerNo = consumerNo;

this.consumerName = consumerName;

this.previousReading = previousReading;

this.currentReading = currentReading;

this.connectionType = connectionType;

this.unitsConsumed = currentReading - previousReading;

this.billAmount = 0.0;

}

public void calculateBill() {

if (connectionType.equalsIgnoreCase("Domestic")) {

if (unitsConsumed <= 100) {

billAmount = unitsConsumed \* 1;

} else if (unitsConsumed <= 200) {

billAmount = (100 \* 1) + ((unitsConsumed - 100) \* 2.50);

} else if (unitsConsumed <= 500) {

billAmount = (100 \* 1) + (100 \* 2.50) + ((unitsConsumed - 200) \* 4);

} else {

billAmount = (100 \* 1) + (100 \* 2.50) + (300 \* 4) + ((unitsConsumed - 500) \* 6);

}

} else if (connectionType.equalsIgnoreCase("Commercial")) {

if (unitsConsumed <= 100) {

billAmount = unitsConsumed \* 2;

} else if (unitsConsumed <= 200) {

billAmount = (100 \* 2) + ((unitsConsumed - 100) \* 4.50);

} else if (unitsConsumed <= 500) {

billAmount = (100 \* 2) + (100 \* 4.50) + ((unitsConsumed - 200) \* 6);

} else {

billAmount = (100 \* 2) + (100 \* 4.50) + (300 \* 6) + ((unitsConsumed - 500) \* 7);

}

} else {

System.out.println("Invalid connection type entered. Bill cannot be calculated.");

billAmount = 0;

}

}

public void displayBill() {

System.out.println("\n--- Electricity Bill Details ---");

System.out.println("Consumer Number: " + consumerNo);

System.out.println("Consumer Name: " + consumerName);

System.out.println("Previous Reading: " + previousReading + " units");

System.out.println("Current Reading: " + currentReading + " units");

System.out.println("Units Consumed: " + unitsConsumed + " units");

System.out.println("Connection Type: " + connectionType);

System.out.printf("Bill Amount: Rs. %.2f%n", billAmount);

}

}

**output**:

--- Electricity Bill Calculation ---

Enter Consumer Number: 12345

Enter Consumer Name: S.ROSHNI

Enter Previous Month Reading (units): 100

Enter Current Month Reading (units): 200

Enter Type of EB Connection (Domestic/Commercial):

DOMESTIC

--- Electricity Bill Details ---

Consumer Number: 12345

Consumer Name: S.ROSHNI

Previous Reading: 100.0 units

Current Reading: 200.0 units

Units Consumed: 100.0 units

Connection Type: DOMESTIC

Bill Amount: Rs. 100.00