

End Semester Lab Examination, February-2023

CSE 1001: Introduction to Computer Programming

SET-A

Please note that Grading will be strict and without compromise. Hence, you are kindly requested to go through the instructions thoroughly

Problem Description

An Electricity Supply Company supplies electricity for domestic and commercial usage all over the country. You are required to write a java program for calculating the amount of bill paid by the customer for both domestic and commercial usage. User will enter customer number and amount of units consumed, and the program will calculate the amount of bill accordingly.

The program should take usage type (domestic/commercial) as input which must be '1' or '2' and the number of units consumed.

- If the user enters '1' then he/she is a domestic user.
- If the user enters '2' then he/she is a commercial user.
- If user enters any other number except 1 or 2, the program should terminate after displaying a message "Invalid usage type".
- After taking valid usage type from user, program should ask user to enter the customer number, number of units consumed and number of days.

The power tariff is as follows:

No of units consumed	Domestic Rate	Commercial Rate
≥ 300	Rs. 3.50	Rs. 5.00
≥ 100 AND < 300	Rs. 2.50	Rs. 3.50
> 0 AND < 100	Rs. 1.50	Rs. 2.00

- If user deposits bill within 10 days, he/she will not be incurred for any extra charges.
- If user deposits bill after 10 days, he/she will be charges for Rs. 50 as extra charges.
- Finally on the basis of usage type, customer number, consumed units and number of days, calculate and generate the bill for the customer.

NOTE 1: For implementation use necessary conditional statement (if/if. . . else/if-else-if Ladder/nested if. . . else/switch case) in Java.

NOTE 2: The bill can be calculated by using the following formula.

$\text{Bill} = \text{units} * \text{rate}$

NOTE 3: You are required to write a java program named as Electricity_Bill.java.

Total [15 points]

1. [3 points] User's Input from the keyboard
2. [2points] Writing the appropriate conditions
3. [4 Points] Computing the Bill based on the conditions
4. [6 Points] Appropriate use of conditional statements in java

Use meaningful identifiers to enhance readability of your code. Please don't plagiarize.
