

S.No: 1	Exp. Name: <i>Write a program in python to calculate and print the Electricity bill of a given customer.</i>	Date:2024-10-22
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Aim:

Write a program in Python to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer.

The charge are as follow :

- For first 50 units Rs. 0.50/unit
- For next 100 units Rs. 0.75/unit
- For next 100 units Rs. 1.20/unit
- For unit above 250 Rs. 1.50/unit

An additional surcharge of 20% is to be added to the bill

Input Format:

Prompt the user to enter the customer ID(integer), customer name(string), units consumed(integer) each on a new line

Output Format:

Print the header for the electricity bill:

```
Electricity Bill
```

Print the customer ID:

```
Customer ID: <customer_id>
```

Print the customer name:

```
Customer Name: <customer_name>
```

Print the units consumed:

```
Units Consumed: <units>
```

Print the calculated amount (formatted to two decimal places):

```
Amount: Rs. <amount>
```

Print the surcharge (formatted to two decimal places):

```
Surcharge (20%): Rs. <surcharge_amount>
```

Print the total amount (formatted to two decimal places):

```
Total Amount: Rs. <total_amount>
```

Example

Sample Input:

Enter customer ID: 5184

Enter customer name: Sanjeev

Enter units consumed: 52

Sample Output:

Electricity Bill

Customer ID: 5184

Customer Name: Sanjeev
Units Consumed: 52
Amount: Rs. 26.50
Surcharge (20%): Rs. 5.30
Total Amount: Rs. 31.80

Format the outputs Amount, Surcharge, Total Amount upto two decimals

Source Code:

electricityBill.py

```
CID=int(input("Enter customer ID: "))
name=input("Enter customer name: ")
unit=int(input("Enter units consumed: "))
print('Electricity Bill')
print("Customer ID:",CID)
print('Customer Name:',name)
print('Units Consumed:',unit)
if(unit<=50):
    unit1=unit*0.50
elif(unit<=150 and unit>50):
    unit1=(50*0.50)+((unit-50)*0.75)
elif(unit<=250 and unit> 150):
    unit1=(50*0.50)+((150-50)*0.75)+((unit-150*1.20))
elif(unit>250):
    unit1=1.50*unit
print('Amount: Rs.', '%.2f'%unit1)
Surcharge=unit1*0.2
print('Surcharge (20%): Rs.', '%.2f'%Surcharge)
ta=unit1+Surcharge
print('Total Amount: Rs.', '%.2f'%ta)
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter customer ID: 5184
Enter customer name: Sanjeev
Enter units consumed: 52
Electricity Bill
Customer ID: 5184
Customer Name: Sanjeev
Units Consumed: 52
Amount: Rs. 26.50
Surcharge (20%): Rs. 5.30
Total Amount: Rs. 31.80

Test Case - 2
User Output
Enter customer ID: 9584
Enter customer name: Krishna
Enter units consumed: 63

Electricity Bill
Customer ID: 9584
Customer Name: Krishna
Units Consumed: 63
Amount: Rs. 34.75
Surcharge (20%): Rs. 6.95
Total Amount: Rs. 41.70