

MySQL Exercise 4

1. The CUSTOMER table of a state electricity board consists of the following fields:-

Meter	Number Varchar	4
Meter Type	Char	1
Previous Reading	Int	5
Current Reading	Int	5
Customer Type	Char	1
Last Bill payment	Char	1 (values could be 'Y' or 'N')

There are two types of meters viz. 3- phase or 1-phase coded as 'T' or 'S' respectively. There are 4 types of customers viz. Agricultural Industrial, Commercial and Residential with codes 'A' , 'I', 'C' and 'R' respectively.

Formulae:- Units used = Current Reading – Previous Reading Rate =Rs.1/ 1.25/ 1.50/ 1.30 for A/I/C/R respectively. Amount = rate*units used Surcharge = 5% for single phase 10% for 3 phase Excise = 30% of (amount +Surcharge) Net = Amount +Surcharge + Excise

Write a block to calculate the bill for each customer. The program should insert the Meter no., Units used, Rate, Amount, Surcharge, Excise duty and Net for each customer into some other suitable table. Also, at the end, it should insert the total Amount, Surcharge, Excise and Net into some other table.

```
D2_92814_Krushna>CREATE PROCEDURE calc_bills()
-> BEGIN
->     DECLARE done INT DEFAULT 0;
->     DECLARE v_meter VARCHAR(4);
->     DECLARE v_type CHAR(1);
->     DECLARE v_prev INT;
->     DECLARE v_curr INT;
->     DECLARE v_cust CHAR(1);
->
->     DECLARE v_units INT;
->     DECLARE v_rate DECIMAL(5,2);
->     DECLARE v_amount DECIMAL(10,2);
->     DECLARE v_surcharge DECIMAL(10,2);
->     DECLARE v_excise DECIMAL(10,2);
->     DECLARE v_net DECIMAL(10,2);
->
->     DECLARE t_amount DECIMAL(12,2) DEFAULT 0;
->     DECLARE t_surcharge DECIMAL(12,2) DEFAULT 0;
->     DECLARE t_excise DECIMAL(12,2) DEFAULT 0;
->     DECLARE t_net DECIMAL(12,2) DEFAULT 0;
->
->     DECLARE cur CURSOR FOR
->         SELECT meter_no, meter_type, prev_reading, curr_reading, cust_type
->         FROM customer;
->
->     DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;
->
->     OPEN cur;
->
->     read_loop: LOOP
->         FETCH cur INTO v_meter, v_type, v_prev, v_curr, v_cust;
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->      IF done = 1 THEN
->          LEAVE read_loop;
->      END IF;
->
->      SET v_units = v_curr - v_prev;
->
->      CASE v_cust
->          WHEN 'A' THEN SET v_rate = 1.00;
->          WHEN 'I' THEN SET v_rate = 1.25;
->          WHEN 'C' THEN SET v_rate = 1.50;
->          WHEN 'R' THEN SET v_rate = 1.30;
->      END CASE;
->
->      SET v_amount = v_rate * v_units;
->
->      IF v_type = 'S' THEN
->          SET v_surcharge = 0.05 * v_amount;
->      ELSE
->          SET v_surcharge = 0.10 * v_amount;
->      END IF;
->
->      SET v_excise = 0.30 * (v_amount + v_surcharge);
->      SET v_net = v_amount + v_surcharge + v_excise;
->
->      INSERT INTO customer_bill VALUES
->          (v_meter, v_units, v_rate, v_amount, v_surcharge, v_excise, v_net);
->
->      SET t_amount = t_amount + v_amount;
->      SET t_surcharge = t_surcharge + v_surcharge;
->      SET t_excise = t_excise + v_excise;
->      SET t_net = t_net + v_net;
->  END LOOP;
->
->  CLOSE cur;
->
->  INSERT INTO bill_totals VALUES (t_amount, t_surcharge, t_excise, t_net);
-> END //
ry OK, 0 rows affected (0.05 sec)
92814_Krushna>

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