SET-B - (Roll No: 15 to 28)

Create tables based on the following schema
The attributes have have same meaning as given in the lab experiment.

```
Item (item_id, item_desc, qty_on_hand, price, category, tax)
Sale (sale_id,  item_id, qty_sold, price, total)
purchase_log(serialNo,item_id,item_desc,time);
```

`item_id` is primary key in `item` table and `item_id` is foreign key in `Sale` table and `purchase_log` table.

`sale_id` is primary key in `sale` table and it must incremented automatically (use `AUTO_INCREMENT`).

`serialNo` is primary key in `purchase_log` table and it must incremented automatically (use `AUTO_INCREMENT`).

HINT: Use `DATE` data type for time feld and builtin function `curdate()` to get the current date.

1. Create a **procedure** to update the `total` field of `Sale` table (which is the sum of product of `qty_sold`, `price` and its `tax` amount). `tax` attribute contains percentage of tax. And the same procedure should decrement the `qty_on_hand` after sale of an item. It hould print all possible error messages.   (9 Marks)

2. Create a **trigger** to insert an entry in the `purchase_log` to record the item details when attribute `qty_on_hand` becomes zero in the `Item` table   (6 Marks)

3. Create a **function** to check the whether a given item is present in the item table. And print appropriate messages. Also this function must be invoked from the above mentioned procedure.   (5 Marks)

4. Write a SQL query to find the item description that ends with letter **r**   (2 Marks)

5. Write SQL query to find the `item_id` of item having lowest sale (based on `total` attribute)   (3 Marks)

6. Write SQL query to find the `item_desc` of item having lowest sale (based on total attribute)   (2 Marks)

7. Create a view to get the `sale_id` and its corresponding `category` (of Item)   (3 Marks)

```
mysql> select * from Item;
+---------+-----------+-------------+-------+-----------+-----+
| item_id | item_desc | qty_on_hand | price | category  | tax |
+---------+-----------+-------------+-------+-----------+-----+
|     100 | notebook  |          20 |    20 | book      |   5 |
|     101 | milkybar  |          30 |     5 | chocolate |  20 |
|     102 | apple     |          50 |    10 | fruit     |  10 |
+---------+-----------+-------------+-------+-----------+-----+
3 rows in set (0.00 sec)

mysql> select * from Sale;
Empty set (0.00 sec)

mysql> select * from purchase_log;
Empty set (0.00 sec)

mysql>
mysql> select check_item(105);
+-----------------+
| check_item(105) |
+-----------------+
| NOT Found       |
+-----------------+
1 row in set (0.00 sec)

mysql>
mysql> call startSale(105,10);
+----------------------------+
| Message                    |
+----------------------------+
| Item ID: 105 does NOT exist |
+----------------------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

```
mysql> call startSale(100,25);
+---------------------------------------------+
| Message                                     |
+---------------------------------------------+
| Insufficient quantity: 25 of Item ID: 100   |
+---------------------------------------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

mysql> call startSale(100,0);
+---------------------------------------------+
| Message                                     |
+---------------------------------------------+
| Insufficient quantity: 0 of Item ID: 100    |
+---------------------------------------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
mysql> call startSale(101,10);
Query OK, 1 row affected (0.06 sec)
mysql> select * from Item;
+---------+-----------+-------------+-------+-----------+-----
+
| item_id | item_desc | qty_on_hand | price | category  | tax
|
+---------+-----------+-------------+-------+-----------+-----
+
|     100 | notebook  |          20 |    20 | book      |   5
|
|     101 | milkybar  |          20 |     5 | chocolate |  20
|
|     102 | apple     |          50 |    10 | fruit     |  10
|
+---------+-----------+-------------+-------+-----------+-----
+
3 rows in set (0.00 sec)
mysql> select * from Sale;
+---------+---------+----------+-------+-------+
| sale_id | item_id | qty_sold | price | total |
+---------+---------+----------+-------+-------+
|       1 |     101 |       10 |     5 |    60 |
+---------+---------+----------+-------+-------+
1 row in set (0.01 sec)
```

```
mysql> select * from purchase_log;
Empty set (0.00 sec)

mysql>
mysql> call startSale(101,20);
Query OK, 1 row affected (0.13 sec)

mysql> select * from Item;
+---------+----------+-------------+-------+-----------+-----+
| item_id | item_desc | qty_on_hand | price | category  | tax |
+---------+----------+-------------+-------+-----------+-----+
|     100 | notebook |          20 |    20 | book      |   5 |
|     101 | milkybar |           0 |     5 | chocolate |  20 |
|     102 | apple    |          50 |    10 | fruit     |  10 |
+---------+----------+-------------+-------+-----------+-----+
3 rows in set (0.00 sec)

mysql> select * from Sale;
+---------+---------+----------+-------+-------+
| sale_id | item_id | qty_sold | price | total |
+---------+---------+----------+-------+-------+
|       1 |     101 |       10 |     5 |    60 |
|       2 |     101 |       20 |     5 |   120 |
+---------+---------+----------+-------+-------+
2 rows in set (0.00 sec)

mysql> select * from purchase_log;
+----------+---------+----------+------------+
| serialNo | item_id | item_desc | time       |
+----------+---------+----------+------------+
|        1 |     101 | milkybar | 2021-09-28 |
+----------+---------+----------+------------+
1 row in set (0.00 sec)

mysql>
```

```
mysql> call startSale(100,20);
Query OK, 1 row affected (0.07 sec)

mysql> select * from Item;
+---------+-----------+-------------+-------+-----------+-----+
| item_id | item_desc | qty_on_hand | price | category  | tax |
+---------+-----------+-------------+-------+-----------+-----+
|     100 | notebook  |           0 |    20 | book      |   5 |
|     101 | milkybar  |           0 |     5 | chocolate |  20 |
|     102 | apple     |          50 |    10 | fruit     |  10 |
+---------+-----------+-------------+-------+-----------+-----+
3 rows in set (0.00 sec)

mysql> select * from Sale;
+---------+---------+----------+-------+-------+
| sale_id | item_id | qty_sold | price | total |
+---------+---------+----------+-------+-------+
|       1 |     101 |       10 |     5 |    60 |
|       2 |     101 |       20 |     5 |   120 |
|       3 |     100 |       20 |    20 |   420 |
+---------+---------+----------+-------+-------+
3 rows in set (0.00 sec)

mysql> select * from purchase_log;
+----------+---------+-----------+------------+
| serialNo | item_id | item_desc | time       |
+----------+---------+-----------+------------+
|        1 |     101 | milkybar  | 2021-09-28 |
|        2 |     100 | notebook  | 2021-09-28 |
+----------+---------+-----------+------------+
2 rows in set (0.00 sec)

mysql>
```

```
mysql> call startSale(102,10);
Query OK, 1 row affected (0.13 sec)


mysql> select * from Item;
+---------+-----------+-------------+-------+-----------+-----+
| item_id | item_desc | qty_on_hand | price | category  | tax |
+---------+-----------+-------------+-------+-----------+-----+
|     100 | notebook  |           0 |    20 | book      |   5 |
|     101 | milkybar  |           0 |     5 | chocolate |  20 |
|     102 | apple     |          40 |    10 | fruit     |  10 |
+---------+-----------+-------------+-------+-----------+-----+
3 rows in set (0.00 sec)

mysql> select * from Sale;
+---------+---------+----------+-------+-------+
| sale_id | item_id | qty_sold | price | total |
+---------+---------+----------+-------+-------+
|       1 |     101 |       10 |     5 |    60 |
|       2 |     101 |       20 |     5 |   120 |
|       3 |     100 |       20 |    20 |   420 |
|       4 |     102 |       10 |    10 |   110 |
+---------+---------+----------+-------+-------+
4 rows in set (0.00 sec)

mysql> select * from purchase_log;
+----------+---------+-----------+------------+
| serialNo | item_id | item_desc | time       |
+----------+---------+-----------+------------+
|        1 |     101 | milkybar  | 2021-09-28 |
|        2 |     100 | notebook  | 2021-09-28 |
+----------+---------+-----------+------------+
2 rows in set (0.00 sec)

mysql>
```