-------------------Create Describe and Insert into table-------------------------

```
mysql> CREATE TABLE Item (
    -> item_id INT PRIMARY KEY, item_desc VARCHAR(30), qty_on_hand INT,
    -> unit_price INT, category VARCHAR(30));
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> DESC Item;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| item_id     | int         | NO   | PRI | NULL    |       |
| item_desc   | varchar(30) | YES  |     | NULL    |       |
| qty_on_hand | int         | YES  |     | NULL    |       |
| unit_price  | int         | YES  |     | NULL    |       |
| category    | varchar(30) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
```

```
mysql> INSERT INTO Item VALUES (100, 'TextBook', 20, 20, 'book'), (101, 'milkybar', 30, 5, 'chocolate'), (102, 'apple',
50, 10, 'fruit'), (103, 'pen', 100, 8, 'stationary');
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

```
mysql> SELECT * FROM Item;
+---------+-----------+-------------+------------+------------+
| item_id | item_desc | qty_on_hand | unit_price | category   |
+---------+-----------+-------------+------------+------------+
|     100 | TextBook  |          20 |         20 | book       |
|     101 | milkybar  |          30 |          5 | chocolate  |
|     102 | apple     |          50 |         10 | fruit      |
|     103 | pen       |         100 |          8 | stationary |
+---------+-----------+-------------+------------+------------+
4 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Sales (
    -> sale_id INT PRIMARY KEY, item_id INT, qty_sold INT, unit_price INT,
    -> total_price INT, tax_amount DECIMAL(10,2), grand_total INT,
    -> FOREIGN KEY (item_id) REFERENCES Item(item_id) );
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> DESC Sales;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| sale_id     | int           | NO   | PRI | NULL    |       |
| item_id     | int           | YES  | MUL | NULL    |       |
| qty_sold    | int           | YES  |     | NULL    |       |
| unit_price  | int           | YES  |     | NULL    |       |
| total_price | int           | YES  |     | NULL    |       |
| tax_amount  | decimal(10,2) | YES  |     | NULL    |       |
| grand_total | int           | YES  |     | NULL    |       |
```

```
+-------------+---------------+------+-----+---------+-------+
```

--------------------------Question AND Query---

Q1: Create trigger for calculating total_price, tax_amount and grand_total in sales table while inserting values.
          The tax rate of vaious category as shown below.
     book (10%), stationery (20%), chocolate (30%), other (5%)

```
mysql> DELIMITER //
mysql> CREATE TRIGGER sale_entry BEFORE INSERT ON Sales FOR EACH ROW
    -> BEGIN
    -> DECLARE prod_cat VARCHAR(30);
    -> DECLARE tax_rate DECIMAL(10,2);
    -> SELECT category INTO prod_cat FROM Item WHERE item_id=new.item_id;
    -> SET new.unit_price=(SELECT unit_price FROM Item WHERE item_id=new.item_id);
    -> SET new.total_price=new.qty_sold*new.unit_price;
    -> IF prod_cat='book' THEN
    ->   SET tax_rate=0.10;
    -> ELSEIF prod_cat='stationary' THEN
    ->   SET tax_rate=0.20;
    -> ELSEIF prod_cat='chocolate' THEN
    ->   SET tax_rate=0.30;
    -> ELSE
    ->   SET tax_rate=0.05;
    -> END IF;
    -> SET new.tax_amount=new.total_price*tax_rate;
    -> SET new.grand_total=new.total_price+new.tax_amount;
    -> END//
Query OK, 0 rows affected (0.01 sec)
```

Q2: Create a trigger to calculate the stock of an Item after sales of an Item.

```
mysql> DELIMITER ;
mysql> CREATE TRIGGER upd_qty AFTER INSERT ON Sales FOR EACH ROW
    -> UPDATE Item SET qty_on_hand=qty_on_hand-new.qty_sold WHERE item_id=new.item_id;
Query OK, 0 rows affected (0.00 sec)
```

---------------------USE CASE--

```
mysql> SELECT * FROM Item;
+---------+-----------+-------------+------------+------------+
| item_id | item_desc | qty_on_hand | unit_price | category   |
+---------+-----------+-------------+------------+------------+
|     100 | TextBook  |          20 |         20 | book       |
|     101 | milkybar  |          30 |          5 | chocolate  |
|     102 | apple     |          50 |         10 | fruit      |
|     103 | pen       |         100 |          8 | stationary |
+---------+-----------+-------------+------------+------------+
```

4 rows in set (0.00 sec)

*mysql> SELECT * FROM Sales;*
Empty set (0.00 sec)

mysql> INSERT INTO Sales(sale_id,item_id,qty_sold) VALUES(200,100,10);
Query OK, 1 row affected (0.01 sec)

*mysql> SELECT * FROM Item;*

item_id	item_desc	qty_on_hand	unit_price	category
100	TextBook	10	20	book
101	milkybar	30	5	chocolate
102	apple	50	10	fruit
103	pen	100	8	stationary

4 rows in set (0.00 sec)

*mysql> SELECT * FROM Sales;*

sale_id	item_id	qty_sold	unit_price	total_price	tax_amount	grand_total
200	100	10	20	200	20.00	220

1 row in set (0.00 sec)

mysql> insert into Sales(sale_id,item_id,qty_sold) values(201,101,25);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Sales(sale_id,item_id,qty_sold) values(202,102,10);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Sales(sale_id,item_id,qty_sold) values(203,103,20);
Query OK, 1 row affected (0.00 sec)

*mysql> SELECT * FROM Item;*

item_id	item_desc	qty_on_hand	unit_price	category
100	TextBook	10	20	book
101	milkybar	5	5	chocolate
102	apple	40	10	fruit
103	pen	80	8	stationary

4 rows in set (0.00 sec)

*mysql> SELECT * FROM Sales;*

sale_id	item_id	qty_sold	unit_price	total_price	tax_amount	grand_total

```
|   200 |   100 |    10 |    20 |    200 |   20.00 |    220 |
|   201 |   101 |    25 |     5 |    125 |   37.50 |    163 |
|   202 |   102 |    10 |    10 |    100 |    5.00 |    105 |
|   203 |   103 |    20 |     8 |    160 |   32.00 |    192 |
+--------+--------+---------+-----------+-------------+-----------+------------+
```
4 rows in set (0.00 sec)