SCS 2209 - DATABASE II

Instructions

- Download the ***.sql*** file in the UGVLE and import the file to phpmyadmin.
- Use the ***salescompany*** database to write SQL queries for each question.
- Save your sql queries and result sets to a text document with the relevant question number. Make sure you have saved the text file using your index number.
- Then upload it to the UGVLE.

What is a VIEW?

VIEWS are virtual tables that do not store any data of their own but display data stored in other tables. It's possible to use INSERT, UPDATE and DELETE on a VIEW. These operations will change the underlying tables of the VIEW. The only consideration is that VIEW should contain all NOT NULL columns of the tables it references. Ideally, you should not use VIEWS for updating.

Why use VIEW?

- VIEWS increase reusability. You will not have to create complex queries involving joins repeatedly.
- VIEWS help in data security. You can use views to show only authorized information to users and hide sensitive data.

Creating a view

Mysql > CREATE VIEW view_name AS SELECT statement;

CREATE VIEW view_name create a view object in the database named as *view_name.*

AS SELECT statement is the SQL statements to be packed in the views. It can be a *SELECT* which contain data from one or multiple tables.

Query the view

Mysql > SELECT * FROM view_name ;

See the SQL statements that make up a particular view

Mysql > SHOW CREATE VIEW view_name ;

Dropping views

This can be used to delete a view from the database that is no longer required.

Mysql > DROP VIEW view_name;

Updating a View

A view can be updated with the *CREATE OR REPLACE VIEW* command.

Mysql>CREATE OR REPLACE VIEW view_name AS SELECT statement;

In MYSQL, the *ALTER VIEW* statement is used to modify or update the already created VIEW without dropping it.

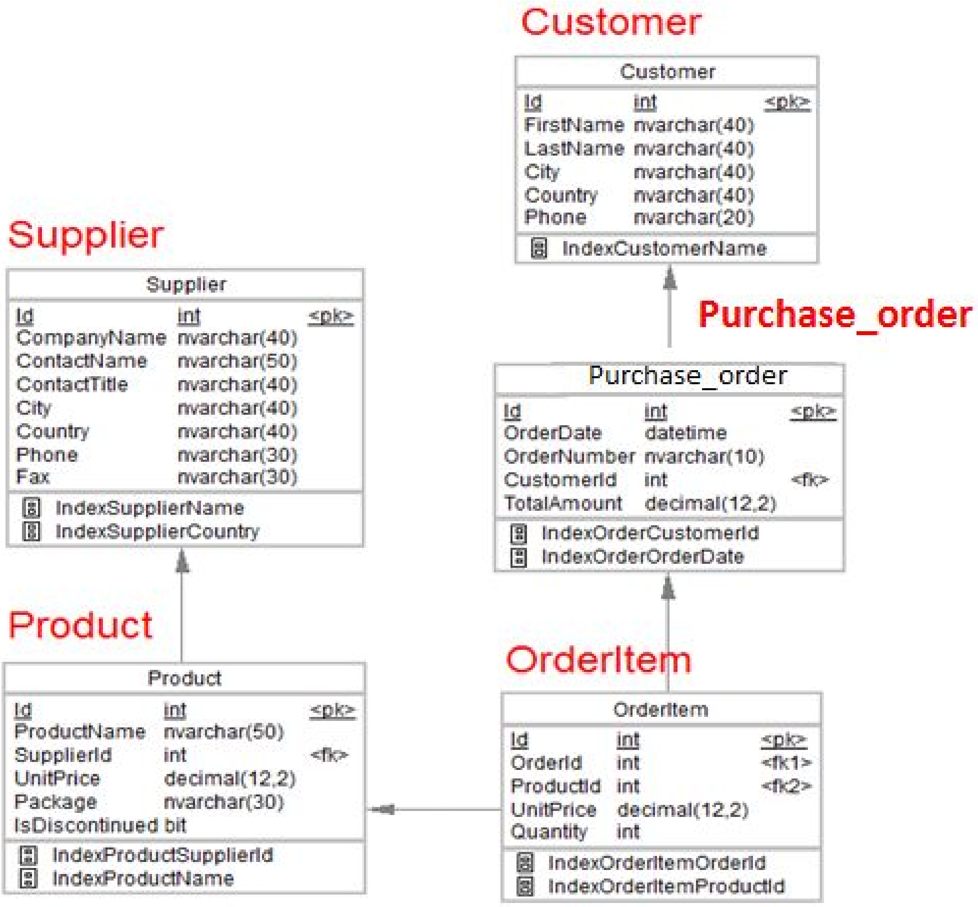
Mysql>ALTER VIEW view_name AS SELECT statement;

Renaming a View

RENAME TABLE statement change the name of a view.

Mysql > RENAME TABLE original_view_name TO new_view_name;

Consider the relational database for the **XYZ Sales Company** which contains details regarding their customers, suppliers, products, orders and items included in orders. The below ERD displays tables, columns, data types, relationships, primary keys, foreign keys, and indexes in the relational database.



Answer all the questions.

1. Create a view ***'Brazil_Customers'*** that shows all customers lives in *Berlin* city in *Germany*.
2. Mistakenly you have named the view in question 1 as *'Brazil_Customers'. Change the view name as 'Berlin_Customers'.*
3. Query the view *'Berlin_Customers'* to view results.

4. Write a query to see the SQL statement that make up the *‘Berlin_Customers’* view.
5. Update the view *‘Berlin_Customers’* to show all customers lives in *Germany* instead of showing all customers lives in *Berlin* city. (Use *CREATE OR REPLACE VIEW* statement)
6. Update the view *‘Berlin_Customers’* to show all customers living in *Sweden* or *UK* instead of showing all customers living in *Germany*. (Use *ALTER VIEW* statement)
7. The view *‘Berlin_Customers’* is no longer required. Hence delete this view from the database.

8. Create a view to display the suppliers with their country and the products they supply. Note that the output should be gained in reverse alphabetical order. Name the view as *‘Supplier_Country’*.

9. Alter your *‘Supplier_Country’* view to check whether the same product is supplied by different suppliers.

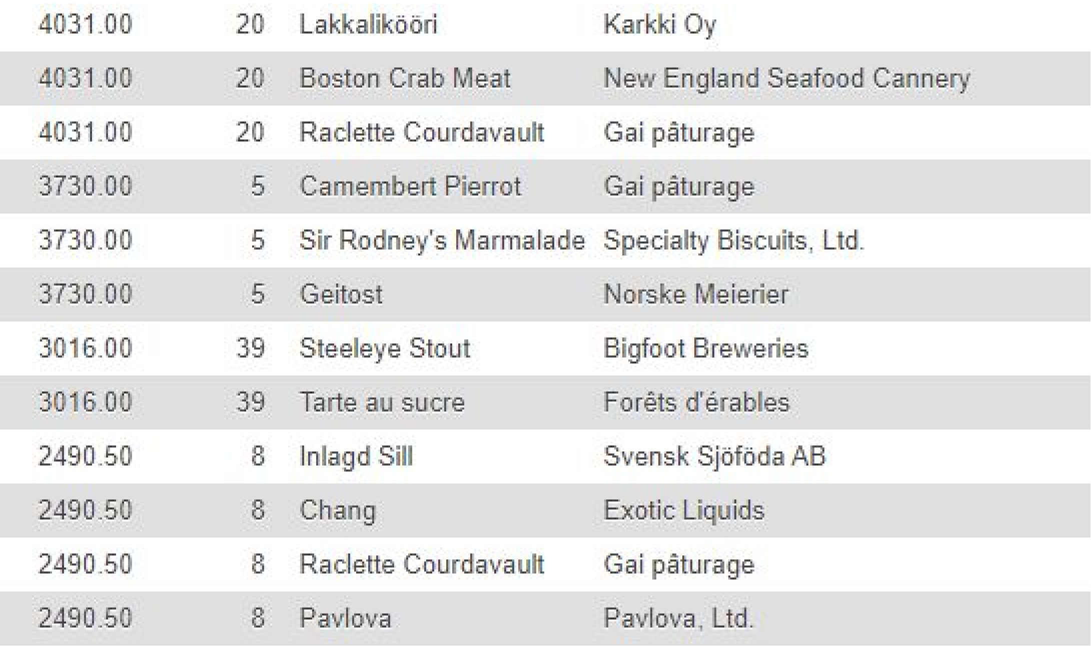
10. Create a view named as ‘*Count_Country*’ to display the number of customers in each country.

11. Alter your ‘*Count_Country*’ view to list the top 05 countries having the highest number of customers.

12. Create a view named as *‘Hanna_View’* for the customer named Hanna Moose to allow her to update her details. Note that only her details should be visible in that view and the only editable fields are FirstName, LastName, City, Country and Phone.

13. Assume the company needed to get the statistics on what are the products included in the purchase orders with the highest total amounts. They also needed to identify the company names which supplied those products. Create a view for this purpose as *“high_sell”*.

    An example output for the above is as follows.



4031.00	20	Lakkalikööri	Karkki Oy
4031.00	20	Boston Crab Meat	New England Seafood Cannery
4031.00	20	Raclette Courdavault	Gai pâturage
3730.00	5	Camembert Pierrot	Gai pâturage
3730.00	5	Sir Rodney's Marmalade	Specialty Biscuits, Ltd.
3730.00	5	Geitost	Norske Meierier
3016.00	39	Steeleye Stout	Bigfoot Breweries
3016.00	39	Tarte au sucre	Forêts d'érables
2490.50	8	Inlagd Sill	Svensk Sjöföda AB
2490.50	8	Chang	Exotic Liquids
2490.50	8	Raclette Courdavault	Gai pâturage
2490.50	8	Pavlova	Pavlova, Ltd.

14. Create the view *'Top_Products'* to list more frequently purchased top 10 products by the customers. This view should include the *Supplier Company name,city* and *country* along with *product name* and *purchased quantity*.