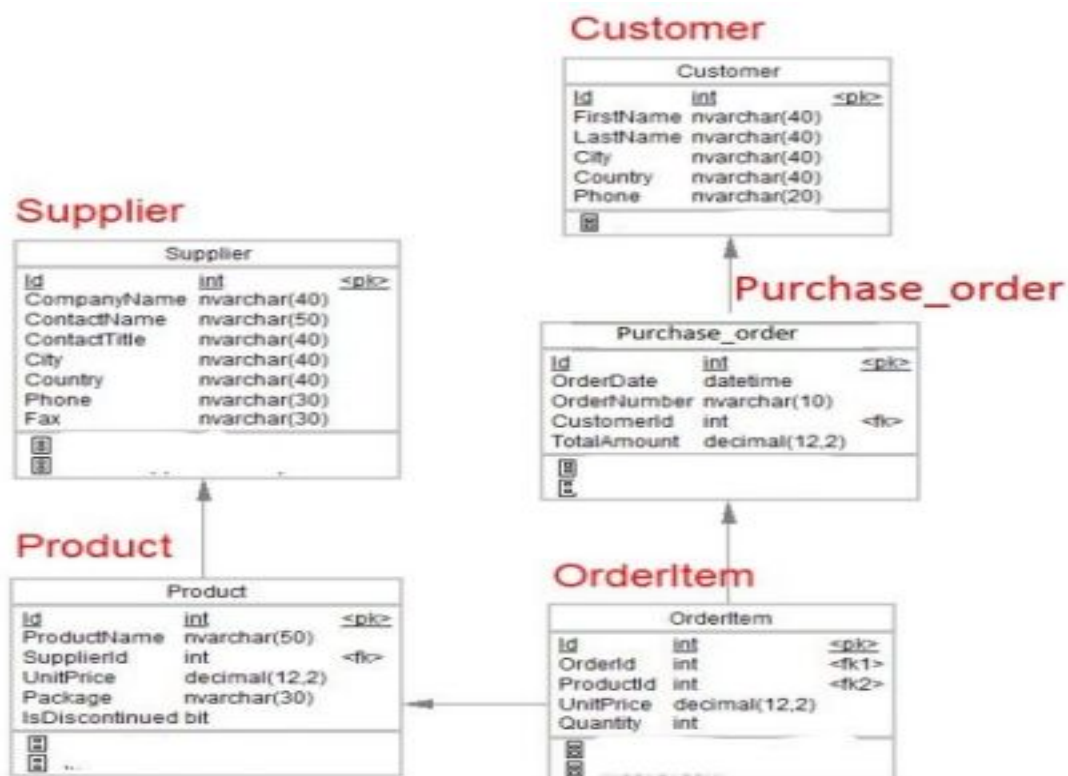


### Instructions

- 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 results 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

### Exercise

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, and foreign keys in the relational database.



*“**SAVEPOINT** command is used in mysql to **temporarily** save a transaction so that you can rollback to that point whenever required. For **SAVEPOINT** to work properly, the order of the statement should be as follows;”*

START TRANSACTION;

-----sql statements-----

**SAVEPOINT** <name>;

----Alteration sql statements----

**ROLLBACK TO** <savepoint name>;

[Example : <https://www.studytonight.com/dbms/tcl-command.php>]

- 1) Assume XYZ Sales Company has a few customers in Sri Lanka as well. The following are the customer details.

<b>Id</b>	<b>FirstName</b>	<b>LastName</b>	<b>City</b>	<b>Country</b>	<b>Phone</b>
121	Srinath	Silva	Colombo	Sri Lanka	0712345678
122	Ramesh	Perera	Kandy	Sri Lanka	0762345678
123	Nipuni	Gunasekara	Chilaw	Sri Lanka	0715678234

Above customer details are not yet verified. Hence, there can be management decisions on inserting or not inserting the details. So you have to insert the records into the database in a way that you can reverse the changes. Introduce three savepoints to the records. Do not commit the changes and examine what changes are made in the database.

- 2) The management realized that the record of Nipuni Gunasekara should not be added to the database. Rollback the changes so as Nipuni Gunasekara is not added to the database. Finally commit the changes so that the other two records are added and check the output to understand how the **SAVEPOINT** and **ROLLBACK TO SAVEPOINT** work.

*‘The **SAVEPOINT** statement sets a named transaction savepoint with the name of the identifier. If the current transaction has a savepoint with the same name, the old savepoint is deleted and a new one is set.’*

- 3) Assume you have to do the following changes in the database.

<b>Id</b>	<b>Current FirstName</b>	<b>New FirstName</b>
1	Maria	Mary
20	Roland	Ron
29	Edurado	Eddy

Set 03 Savepoints to the changes as Alt1, Alt2 and Alt 3.

Set a new change to Id = 20 as LastName="Alex". Name the Savepoint for the specific change as Alt2 again.

Rollback to Alt2 and commit the changes.

Check which change has been applied and confirm whether it agrees with the above statement.

*“The **RELEASE SAVEPOINT** statement instructs the server to release a savepoint named earlier with the **SAVEPOINT** statement for the current transaction. The statement does not commit the transaction, nor does it roll back the transaction to the savepoint. Instead, it merely eliminates the savepoint as a possible rollback point.”*

4) The company suddenly decided to stop its operations in UK and Brazil. Set two Savepoints to remove the customers of these two countries.

Release the second Savepoint.

Commit the changes.

Check the output.

5) The company also decided to close its outlet in the city of Paris. Set a savepoint to make this change in the database.

Give a commit statement.

Then release the savepoint.

Check how the changes have been applied to understand the statement above, for the operation of the RELEASE SAVEPOINT with the COMMIT command.

6) XYZ Company got a new supplier from Colombo with the following information;

Id	99
CompanyName	ABC Pvt Ltd
ContactName	Roshan Perera
ContactTitle	Mr
City	Colombo
Country	Sri Lanka
Phone	0712345678
Fax	0712345678

Set a Savepoint named roll\_sav.

Insert the details to the relevant table.

Release the savepoint and then roll back the changes up to the savepoint.

Check what changes have been done in the database.

7) Set a savepoint named roll\_sav\_1.

Insert the details of the above supplier in the table.

Rollback the changes up to the savepoint and then release the savepoint.

Check what changes have been done in the database to identify the operation of RELEASE SAVEPOINT in the presence of ROLLBACK operation.