

**CS 207: Applied Database Practicum**  
**In-Class Activity 5: Introduction to Stored Procedure, Stored Functions and Cursors,**  
**23<sup>rd</sup> September, 2019**

In this activity, you will be working in Mysql.

Q1. Load the world.sql dump file uploaded in moodle (No need to load the dump file if it is already uploaded in your mysql server)

- i) Create a stored procedure to display the country name, headofstate of the country and continent name for ASIA or EUROPE
- ii) Create a stored procedure that outputs the highest population (**value**) from the continents **EUROPE** and **AFRICA** and then use the value to find the name of that country.

**In this question load the database from the dump file (join.sql) given in moodle**

The Database has the following tables:

**Customers:** stores customer's data.

**Products:** stores a list of scale model cars.

**ProductLines:** stores a list of product line categories.

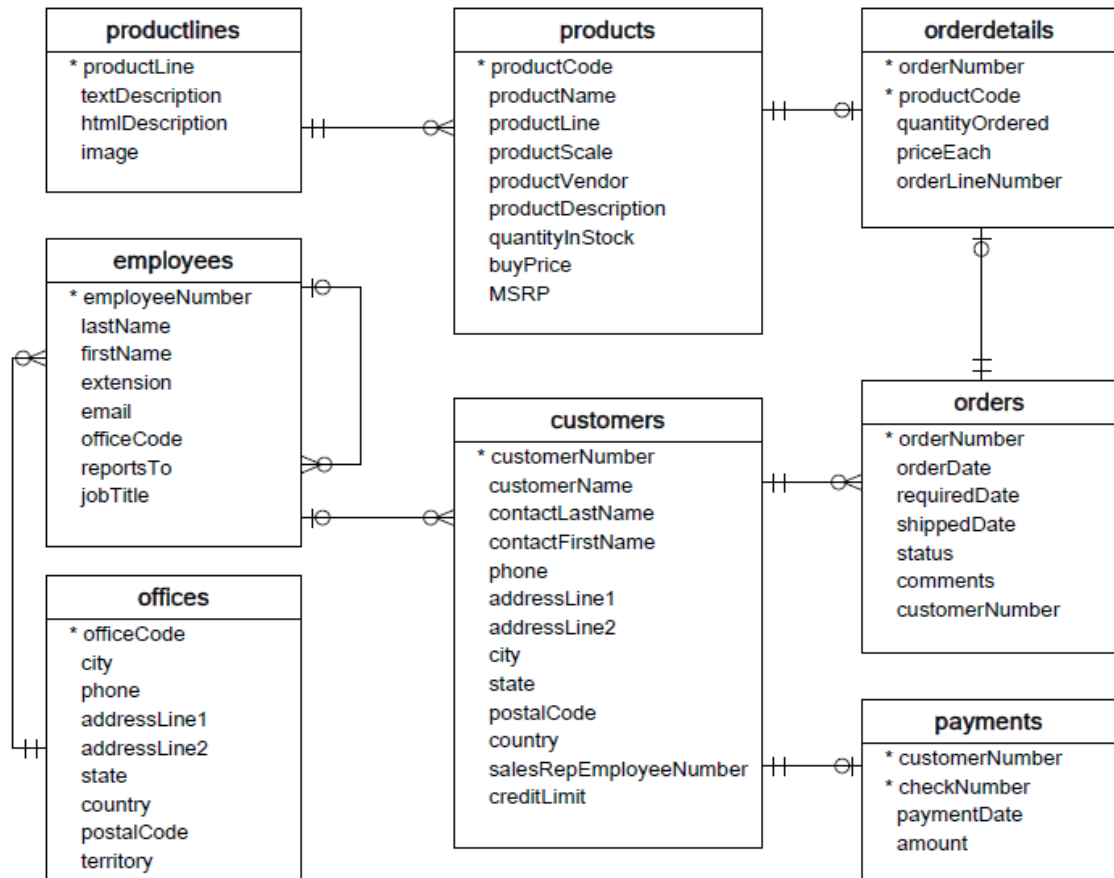
**Orders:** stores sales orders placed by customers.

**OrderDetails:** stores sales order line items for each sales order.

**Payments:** stores payments made by customers based on their accounts.

**Employees:** stores all employee information as well as the organization structure such as who reports to whom.

**Offices:** stores sales office data.



Q2. Create a stored function that takes as input the creditlimit of a customer from the **customers** table and assigns the following CustomerLevel to each customer:

- i) if creditLimit > 50000 then assign CustomerLevel=**PLATINUM**
- ii) if creditLimit <=50000 and creditLimit >=10000 then assign CustomerLevel=**GOLD**
- iii) if creditLimit <=50000 then assign CustomerLevel=**SILVER**

The output should be something similar to the image below

customerName	CustomerLevel(creditLimit)
Alpha Cognac	PLATINUM
American Souvenirs Inc	SILVER
Amica Models & Co.	PLATINUM
ANG Resellers	SILVER
Anna's Decorations, Ltd	PLATINUM
Anton Designs, Ltd.	SILVER
Asian Shopping Network, Co	SILVER
Asian Treasures, Inc.	SILVER
Atelier graphique	GOLD
Australian Collectables, Ltd	PLATINUM
Australian Collectors, Co.	PLATINUM

BONUS: ONLY if you have done the above steps, then you can try this bonus for an extra point.

Q3. Create a table temp with the following schema:

Field	Type	Null	Key	Default	Extra
customerNumber	int(11)	NO	PRI	NULL	
Value	varchar(255)	YES		NULL	

Create a stored procedure containing a cursor that

- Fetches the customerNumber and creditLimit from **customers** table
- Fetches the customerNumber and Total amount paid by each customer from **payments** table
- If the Total amount > creditLimit then insert into the **temp** the customerNumber and **"limit exceeded"**
- If the Total amount < creditLimit then insert into the **temp** the customerNumber and **"below limit"**.

The output should be something similar to the image below

```
mysql> select * from temp limit 4$$
+-----+-----+
| customerNumber | Value          |
+-----+-----+
|          103 | limit exceeded |
|          112 | limit exceeded |
|          114 | limit exceeded |
|          119 | below limit    |
+-----+-----+
4 rows in set (0.00 sec)
```