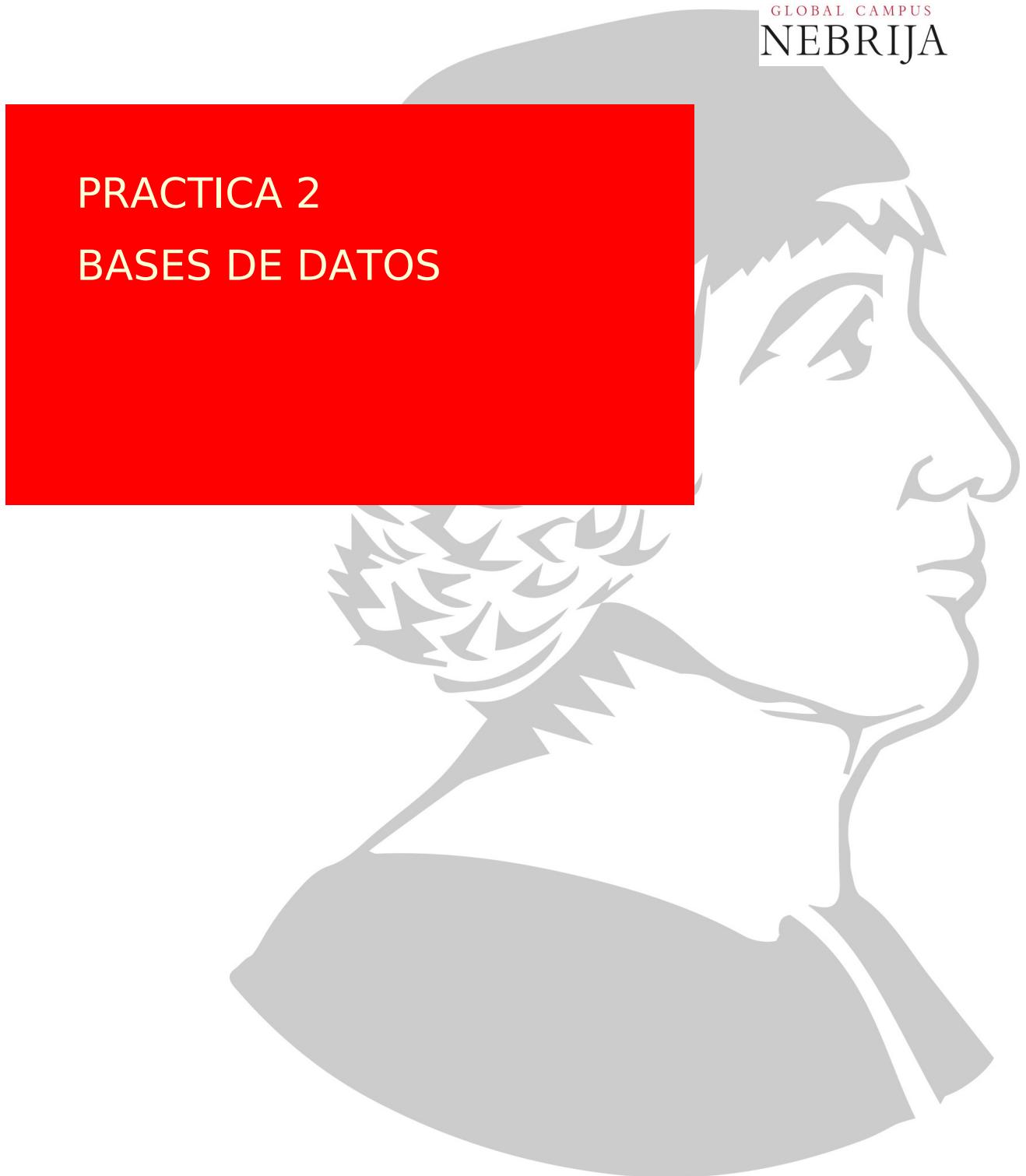


PRACTICA 2

BASES DE DATOS



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PARTE 1

1. Muestra el contenido de todas las tuplas de la tabla empleado.

```
sudo mysql -u joso -h 192.168.1.120 -p
MariaDB [bank]> select * from empleado;
+-----+-----+-----+-----+
| id_empleado | nombre_empleado | numero_telefono | fecha_contratacion |
+-----+-----+-----+-----+
| 1 | Manuel | 12345678 | 2000-12-12 |
| 2 | Paco | NULL | 2000-12-12 |
+-----+-----+-----+
2 rows in set (0.053 sec)

MariaDB [bank]>
```

2. En esa misma tabla, muestra el contenido pero con los atributos renombrados (es decir con alias) de esta manera:

id_empleado a ie
nombre_empleado a ne
numero_telefono a nt
fecha_contratación a fc

```
sudo mysql -u joso -h 192.168.1.120 -p
MariaDB [bank]> select id_empleado AS ie,nombre_empleado AS ne, numero_telefono AS nt, fecha_contratacion AS fc from empleado;
+-----+-----+-----+
| ie | ne | nt | fc |
+-----+-----+-----+
| 1 | Manuel | 12345678 | 2000-12-12 |
| 2 | Paco | NULL | 2000-12-12 |
+-----+-----+
2 rows in set (0.072 sec)

MariaDB [bank]>
```

3. Muestra cuantas tuplas tiene la tabla empleados.

```
MariaDB [bank]> SELECT COUNT(*) AS tuplas_total FROM empleado;
+-----+
| tuplas_total |
+-----+
| 2 |
+-----+
1 row in set (0.116 sec)

MariaDB [bank]>
```

- 4 Muestra las tuplas de la tabla empleados, que tienen valores nulos en el atributo número_telefono.

```
sudo mysql -u joso -h 192.168.1.120 -p
MariaDB [bank]> SELECT * FROM empleado WHERE numero_telefono IS NULL;
+-----+-----+-----+-----+
| id_empleado | nombre_empleado | numero_telefono | fecha_contatacion |
+-----+-----+-----+-----+
|      2 | Paco           |          NULL | 2000-12-12        |
+-----+-----+-----+-----+
1 row in set (0.020 sec)

MariaDB [bank]>
```

5 Muestra las tuplas de la tabla empleados, que tienen valores no nulos en el atributo número_telefono.

```
sudo mysql -u joso -h 192.168.1.120 -p
MariaDB [bank]> SELECT * FROM empleado WHERE numero_telefono IS NOT NULL;
+-----+-----+-----+-----+
| id_empleado | nombre_empleado | numero_telefono | fecha_contatacion |
+-----+-----+-----+-----+
|      1 | Manuel         | 12345678 | 2000-12-12        |
+-----+-----+-----+-----+
1 row in set (0.028 sec)

MariaDB [bank]>
```

6 Modifica el valor de numero_telefono a 616741711 en todas las tuplas de empleado.

Nota: para realizar updates y deletes sobre tablas con claves foráneas sin problemas, previamente hay que desactivar la opción Safe Updates seleccionada a través de Edit-> Preferences -> SQL Editor del Workbench.

```
sudo mysql -u joso -h 192.168.1.120 -p
MariaDB [bank]> UPDATE empleado SET numero_telefono='616741711';
Query OK, 0 rows affected (0.022 sec)
Rows matched: 2  Changed: 0  Warnings: 0

MariaDB [bank]> select * from empleado;
+-----+-----+-----+-----+
| id_empleado | nombre_empleado | numero_telefono | fecha_contatacion |
+-----+-----+-----+-----+
|      1 | Manuel         | 616741711 | 2000-12-12        |
|      2 | Paco           | 616741711 | 2000-12-12        |
+-----+-----+-----+-----+
2 rows in set (0.070 sec)

MariaDB [bank]>
```

7 Borra todas las tuplas de empleado. ¿Existe algún problema? ¿Por qué?

```
sudo mysql -u joso -h 192.168.1.12
MariaDB [bank]> DELETE FROM empleado;
Query OK, 0 rows affected (0.116 sec)

MariaDB [bank]> select * from empleado;
Empty set (0.084 sec)

MariaDB [bank]>
```

PARTE 2

1 Muestra todos los customerNumber, customerName, city, creditLimit de la tabla customers, ordenados por creditLimit en orden ascendente.

customerNumber	customerName	city	creditlimit
125	Havel & Zbyszek Co	Warszawa	0.00
168	American Souvenirs Inc	New Haven	0.00
169	Porto Imports Co.	Lisboa	0.00
206	Asian Shopping Network, Co	Singapore	0.00
223	Natürlich Autos	Cunewalde	0.00
237	ANG Resellers	Madrid	0.00
247	Messner Shopping Network	Frankfurt	0.00
273	Franken Gifts, Co	München	0.00

2 Muestra todos los customerNumber, customerName, city, creditLimit de la tabla customers, ordenados por creditLimit en orden ascendente, y city en orden descendente.

customerNumber	customerName	city	creditlimit
125	Havel & Zbyszek Co	Warszawa	0.00
409	Stuttgart Collectable Exchange	Stuttgart	0.00
206	Asian Shopping Network, Co	Singapore	0.00
480	Kremlin Collectables, Co.	Saint Petersburg	0.00
168	American Souvenirs Inc	New Haven	0.00
361	Kommission Auto	Münster	0.00
273	Franken Gifts, Co	München	0.00
477	Mit Vergnügen & Co	Manheim	0.00

3 Muestra todos los customerNumber, customerName, city, creditLimit de la tabla customers, ordenados por customerName, cuya city sea Nantes o country sea France.

customerNumber	customerName	city	creditlimit
242	Alpha Cognac	Toulouse	61100.00
103	Atelier graphique	Nantes	21000.00
256	Auto Associés & Cie.	Versailles	77900.00
406	Auto Canal+ Petit	Paris	95000.00
171	Daedalus Designs Imports	Lille	82900.00
172	La Corne D'abondance, Co.	Paris	84300.00
119	La Rochelle Gifts	Nantes	118200.00
250	Lyon Souveniers	Paris	68100.00
350	Marseille Mini Autos	Marseille	65000.00
209	Mini Caravy	Strasbourg	53800.00
353	Reims Collectables	Reims	81100.00
146	Savely & Henriot, Co.	Lyon	123900.00

4 Muestra todos los customerNumber, customerName, city, creditLimit de la tabla customers, ordenados por customerName, cuya city sea Nantes y cuyo creditLimit sea menor o igual que 100000.

```
MySQL [localhost:3306 ssl] classicmodels SQL > SELECT customerNumber,(customerName,city,creditLimit) FROM customers WHERE city='Nantes' AND creditLimit<=100000 ORDER BY customerName ;
+-----+-----+-----+
| customerNumber | customerName | city | creditLimit |
+-----+-----+-----+
| 103 | Atelier graphique | Nantes | 21000.00 |
+-----+-----+-----+
1 row in set (0.0005 sec)
```

5 Muestra todos los `customerName`, `city` de la tabla `customers`, ordenados por `city`, cuya `city` sea Madrid, Lyon o Paris.

```
MySQL [localhost:3306 ssl] classicmodels SQL > SELECT customerName,city FROM customers WHERE city in ('Madrid','Lyon','Paris') ORDER BY city ;
+-----+-----+
| customerName | city |
+-----+-----+
| Saveley & Henriot, Co. | Lyon |
| Euro+ Shopping Channel | Madrid |
| ANG Resellers | Madrid |
| CAF Imports | Madrid |
| Corrida Auto Replicas, Ltd | Madrid |
| Anton Designs, Ltd. | Madrid |
| La Corne D'abondance, Co. | Paris |
| Lyon Souveniers | Paris |
| Auto Canal+ Petit | Paris |
+-----+-----+
9 rows in set (0.0005 sec)
```

6 Muestra todos los `customerName`, `creditLimit` de la tabla `customers` cuyo `creditLimit` este entre 10000 y 87000.

```
MySQL [localhost:3306 ssl] classicmodels SQL > SELECT customerName,creditLimit FROM customers WHERE creditLimit BETWEEN 10000 AND 87000 ;
+-----+-----+
| customerName | creditLimit |
+-----+-----+
| Atelier graphique | 21000.00 |
| Signal Gift Stores | 71800.00 |
| Baane Mini Imports | 81700.00 |
| Blauer See Auto, Co. | 59700.00 |
| Mini Wheels Co. | 64600.00 |
| Volvo Model Replicas, Co | 53100.00 |
| Danish Wholesale Imports | 83400.00 |
+-----+-----+
```

7 Muestra todos los `customerName`, `contactLastname` de la tabla `customers` cuyo `contactLastname` empiece por 'De'.

```
sudo mysql
      sudo mysql104x56
MariaDB [classicmodels]> SELECT customerName,contactLastName FROM customers WHERE contactLastName LIKE %De;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '%De' at line 1
MariaDB [classicmodels]> SELECT customerName,contactLastName FROM customers WHERE contactLastName LIKE 'De%';
+-----+-----+
| customerName | contactLastName |
+-----+-----+
| Porto Imports Co. | de Castro |
| UK Collectables, Ltd. | Devon |
| Petit Auto | Dewey |
+-----+-----+
3 rows in set (0.000 sec)

MariaDB [classicmodels]>
```

8 Muestra todos los customerName, contactFirstName, contactLastname de la tabla customers cuyo contactLastname empieza por 'De'; contactFirstName y contactLastname deben figurar juntos de esta manera: si contactFirstName es 'Celia' y contactLastname es 'Gutierrez', debe aparecer 'Celia Gutierrez', es decir separados por un espacio en blanco. Además este nuevo atributo formado por contactFirstName y contactLastName se llama contacto.

```
sudo mysql
      sudo mysql104x56
MariaDB [classicmodels]> SELECT concat(customerName, " ", contactLastName) AS 'contacto' FROM customers WHERE contactLastName LIKE 'De%';
+-----+
| contacto |
+-----+
| Porto Imports Co. de Castro |
| UK Collectables, Ltd. Devon |
| Petit Auto Dewey |
+-----+
3 rows in set (0.000 sec)

MariaDB [classicmodels]>
```

9 Muestra las 7 primeras city distintas (es decir solo aparecen una vez), ordenadas en ascendente. (Falta poner LIMIT 7)

```
sudo mysql
MariaDB [classicmodels]> SELECT city FROM customers GROUP BY city HAVING COUNT(*) = 1;
+-----+
| city
+-----+
| Aachen
| Allentown
| Amsterdam
| Barcelona
| Bergamo
| Bergen
| Berlin
| Bern
```

10 Muestra todos los country distintos (es decir solo aparecen una vez), cuyo valor sea distinto a 'Spain' o a 'France'.

```
sudo mysql
MariaDB [classicmodels]> SELECT country,COUNT(*) FROM customers GROUP BY country HAVING COUNT(*) = 1 && (country !='France' OR country !='Spain');
+-----+-----+
| country | COUNT(*) |
+-----+-----+
| Hong Kong |      1 |
| Israel    |      1 |
| Netherlands |     1 |
| Philippines |     1 |
| Poland    |      1 |
| Russia    |      1 |
| South Africa |     1 |
+-----+-----+
7 rows in set (0.001 sec)
```

11 Muestra el valor mínimo y maximo de creditLimit de la tabla customers.

```
sudo mysql
MariaDB [classicmodels]> SELECT MIN(creditLimit),MAX(creditLimit) FROM customers;
+-----+-----+
| MIN(creditLimit) | MAX(creditLimit) |
+-----+-----+
|      0.00 |     227600.00 |
+-----+-----+
1 row in set (0.000 sec)

MariaDB [classicmodels]>
```

12 Muestra la suma y la media de creditLimit de la tabla customers.

```
sudo mysql
      sudo mysql104x56
MariaDB [classicmodels]> SELECT SUM(creditLimit),AVG(creditLimit) FROM customers;
+-----+-----+
| SUM(creditLimit) | AVG(creditLimit) |
+-----+-----+
|     8254400.00 |    67659.016393 |
+-----+-----+
1 row in set (0.001 sec)

MariaDB [classicmodels]>
```

13 Muestra la cantidad de clientes (customers) y city, agrupados por city y ordenados por city.

```
sudo mysql
      sudo mysql104x56
MariaDB [classicmodels]>
MariaDB [classicmodels]> SELECT COUNT(customerName),city FROM customers GROUP BY city ORDER BY city;
+-----+-----+
| COUNT(customerName) | city   |
+-----+-----+
|          1 | Aachen
|          1 | Allentown
|          1 | Amsterdam
|          3 | Auckland
|          1 | Barcelona
|          1 | Bergamo
|          1 | Boston
```

14 Muestra la suma de creditLimit y city, cuyo salesRepEmployeeNumber sea mayor que 3, agrupados por city.

```
76 rows in set (0.001 sec)

MariaDB [classicmodels]>
MariaDB [classicmodels]> SELECT SUM(creditLimit),city FROM customers WHERE salesRepEmployeeNumber > 3 GROUP BY city;
+-----+-----+
| SUM(creditLimit) | city   |
+-----+-----+
|    100600.00 | Allentown
|   275700.00 | Auckland
|    60300.00 | Barcelona
```

15 Muestra la suma de creditLimit (renombrado como total) y country, cuyo salesRepEmployeeNumber sea mayor o igual que 5, agrupados por country, y cuya total sea mayor que 500000.

```
sudo mysql
sudo mysql 104x56
MariaDB [classicmodels]> SELECT SUM(creditLimit) AS total, country FROM customers WHERE salesRepEmployeeNumber >= 3 GROUP BY country HAVING total > 500000;
+-----+-----+
| total | country |
+-----+-----+
| 932300.00 | France |
| 517800.00 | Spain |
| 2811700.00 | USA |
+-----+-----+
3 rows in set (0.001 sec)

MariaDB [classicmodels]>
```