



31°

Lab - AWS re/Start

**Selección de datos de una
base de datos**



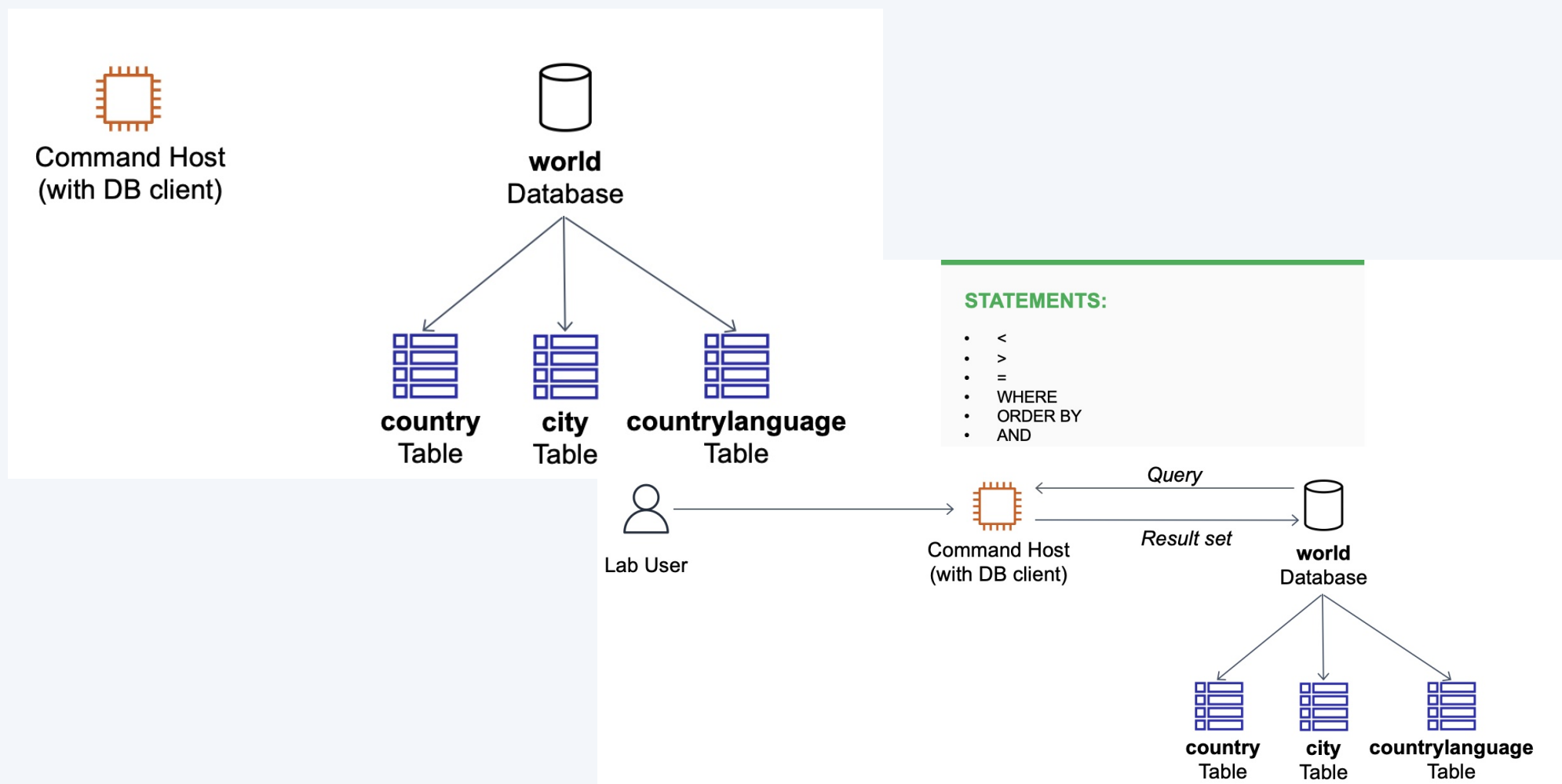
Tarea 01



Realizando consultas a la base de datos

A continuación, se muestra los objetivos del laboratorio:

- Usar el enunciado **SELECT** para consultar una base de datos
- Usar la función **COUNT()**
- Usar los siguientes operadores para consultar una base de datos:
 - **<, >, =, WHERE, ORDER BY, AND**



Tarea 01



Podemos ver todos los registros que se encuentran en la tabla *country* de la base de datos *world* usando **SELECT * FROM**

```
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| world |
+-----+
5 rows in set (0.002 sec)

MariaDB [(none)]> use world; SHOW TABLES;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
+-----+
| Tables_in_world |
+-----+
| city |
| country |
| countrylanguage |
+-----+
3 rows in set (0.000 sec)

MariaDB [world]> SELECT * FROM world.country;
```

Code	Name	GovernmentForm	Continent	Region	Capital	Code2	SurfaceArea	IndepYear	Population	LifeExpectancy	GNP	GNPOld	LocalName
ABW	Aruba	Nonmetropolitan Territory of The Netherlands	North America	Caribbean	129 AW		193.00	NULL	103000	78.4	828.00	793.00	Aruba
AFG	Afghanistan	Islamic Emirate	Asia	Southern and Central Asia	1 AF		652090.00	1919	22720000	45.9	5976.00	NULL	Afghanistan/Afqanestan

Entonces notamos que con el **SELECT** podemos *mostrar/extraer* ciertos campos y registros de la tabla. Asimismo, para hacer un conteo de algo, usamos **COUNT()**

```
MariaDB [world]> SELECT COUNT(*) FROM world.country;
```

COUNT(*)
239

```
1 row in set (0.001 sec)

MariaDB [world]> SHOW COLUMNS FROM world.country;
```

Field	Type	Null	Key	Default	Extra
Code	char(3)	NO	PRI		
Name	char(52)	NO			
Continent	enum('Asia','Europe','North America','Africa','Oceania','Antarctica','South America')	NO		Asia	
Region	char(26)	NO			
SurfaceArea	decimal(10,2)	NO		0.00	
IndepYear	smallint(6)	YES		NULL	
Population	int(11)	NO		0	
LifeExpectancy	decimal(3,1)	YES		NULL	
GNP	decimal(10,2)	YES		NULL	
GNPOld	decimal(10,2)	YES		NULL	
LocalName	char(45)	NO			
GovernmentForm	char(45)	NO			
Capital	int(11)	YES		NULL	
Code2	char(2)	NO			

```
14 rows in set (0.001 sec)
```

Tarea 01



Así, podemos mostrar ciertos campos de la tabla, como podemos editar el nombre del campo a mostrar con ayuda del **as**

```
MariaDB [world]> SELECT Name, Capital, Region, SurfaceArea AS "Surface Area", Population FROM world.country;
```

Name	Capital	Region	Surface Area	Population
Aruba	129	Caribbean	193.00	103000
Afghanistan	1	Southern and Central Asia	652090.00	22720000
Angola	56	Central Africa	1246700.00	12878000
Anguilla	62	Caribbean	96.00	8000
Albania	34	Southern Europe	28748.00	3401200
Andorra	55	Southern Europe	468.00	78000
Netherlands Antilles	33	Caribbean	800.00	217000
United Arab Emirates	65	Middle East	83600.00	2441000
Argentina	69	South America	2780400.00	37032000
Armenia	126	Middle East	29800.00	3520000
American Samoa	54	Polynesia	199.00	68000
Antarctica	NULL	Antarctica	13120000.00	0
French Southern territories	NULL	Antarctica	7780.00	0
Antigua and Barbuda	63	Caribbean	442.00	68000
Australia	135	Australia and New Zealand	7741220.00	18886000
Austria	1523	Western Europe	83859.00	8091800
Azerbaijan	144	Middle East	86600.00	7734000
Burundi	552	Eastern Africa	27834.00	6695000
Belgium	179	Western Europe	30518.00	10239000
Benin	187	Western Africa	112622.00	6097000
Burkina Faso	549	Western Africa	274000.00	11937000
Bangladesh	150	Southern and Central Asia	143998.00	129155000

También es posible ordenar los resultados con **order by**, por default lo hace de manera descendente. Si buscas ordenar ascendentemente nos ayudamos del **ASC**. En este caso ordenamos según la cant de población

```
MariaDB [world]> SELECT Name, Capital, Region, SurfaceArea AS "Surface Area", Population FROM world.country ORDER BY Population ASC;
```

Name	Capital	Region	Surface Area	Population
French Southern territories	NULL	Antarctica	7780.00	0
Heard Island and McDonald Islands	NULL	Antarctica	359.00	0
United States Minor Outlying Islands	NULL	Micronesia/Caribbean	16.00	0
South Georgia and the South Sandwich Islands	NULL	Antarctica	3903.00	0
Bouvet Island	NULL	Antarctica	59.00	0
British Indian Ocean Territory	NULL	Eastern Africa	78.00	0
Antarctica	NULL	Antarctica	13120000.00	0
Pitcairn	2912	Polynesia	49.00	50
Cocos (Keeling) Islands	2317	Australia and New Zealand	14.00	600
Holy See (Vatican City State)	3538	Southern Europe	0.40	1000
Niue	2805	Polynesia	260.00	2000
Tokelau	3333	Polynesia	12.00	2000
Falkland Islands	763	South America	12173.00	2000
Norfolk Island	2806	Australia and New Zealand	36.00	2000
Christmas Island	1791	Australia and New Zealand	135.00	2500
Svalbard and Jan Mayen	938	Nordic Countries	62422.00	3200
Saint Helena	3063	Western Africa	314.00	6000
Saint Pierre and Miquelon	3067	North America	242.00	7000
Anguilla	62	Caribbean	96.00	8000
Montserrat	2697	Caribbean	102.00	11000
Nauru	2728	Micronesia	21.00	12000
Tuvalu	3424	Polynesia	26.00	12000

Tarea 01



Finalmente, podemos colocar algunas condiciones en nuestra consulta con ayuda del **WHERE**. Por ejemplo, la siguiente consulta usa dos condiciones: todas las filas con una población mayor de 50 000 000 y todas las filas que una población menor de 100 000 000. La consulta incluye el operador **AND** para indicar que ambas condiciones deben ser verdaderas.

```
MariaDB [world]> SELECT Name, Capital, Region, SurfaceArea AS "Surface Area", Population FROM world.country WHERE Population > 50000000 AND Population < 100000000 ORDER BY Population;
```

Name	Capital	Region	Surface Area	Population
Ukraine	3426	Eastern Europe	603700.00	50456000
Congo, The Democratic Republic of the	2298	Central Africa	2344858.00	51654000
Italy	1464	Southern Europe	301316.00	57680000
France	2974	Western Europe	551500.00	59225700
United Kingdom	456	British Islands	242900.00	59623400
Thailand	3320	Southeast Asia	513115.00	61399000
Ethiopia	756	Eastern Africa	1104300.00	62565000
Turkey	3358	Middle East	774815.00	66591000
Iran	1380	Southern and Central Asia	1648195.00	67702000
Egypt	608	Northern Africa	1001449.00	68470000
Philippines	766	Southeast Asia	300000.00	75967000
Vietnam	3770	Southeast Asia	331689.00	79832000
Germany	3068	Western Europe	357022.00	82164700
Mexico	2515	Central America	1958201.00	98881000

14 rows in set (0.000 sec)