**EJERCICIOS RESUELTOS BBDD**

1. Mostrar las ciudades de España que tienen más de 100.000 habitantes. Resultado: 55 filas.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name FROM city WHERE city.CountryCode = 'ESP' [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) city.Population > 100000;

1. Mostrar los países que tengan año de independencia. Resultado: 192.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) country.Name FROM country WHERE country.IndepYear;

1. 3. Mostrar la media de población mundial por país. Resultado: 25434098.1172

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(Population) FROM country;

1. Mostrar la media de población por país del continente europeo. Resultado: 15871186.9565

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(Population) FROM country WHERE Continent = 'Europe';

1. Mostrar en qué años se produjeron procesos de independencia en el mundo después de 1990. Resultado: 1991, 1992, 1993 y 1994.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) country.IndepYear FROM country WHERE IndepYear > 1990 GROUP BY IndepYear;

1. Mostrar nombres de ciudades de Italia que tengan las vocales ‘a’, ‘e’ y ‘o’ en alguna parte de su nombre. Resultado: 56.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) Name FROM city WHERE CountryCode = 'ITA' [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) (Name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-comparison-functions.html%23operator_like) '%a%' [OR](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_or) Name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-comparison-functions.html%23operator_like) '%e%' [OR](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_or) Name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-comparison-functions.html%23operator_like) '%o%');

1. Mostrar la suma total de ventas de la tabla de detalle de albaranes. Resultado: 9604190.61

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_sum)(orderdetails.quantityOrdered\*orderdetails.priceEach) FROM `orderdetails`;

1. Mostrar cuantas líneas de venta tienen un importe entre 10000 y 20000. Resultado: 6 El valor de la línea de venta se obtiene de multiplicar las unidades por el precio.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(orderLineNumber) FROM orderdetails WHERE quantityOrdered\*priceEach BETWEEN 10000 [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) 20000;

1. Mostrar cuantos países no tienen fecha de independencia. Resultado: 47

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) FROM country WHERE IndepYear [IS](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html%23operator_is) NULL;

1. Buscar cuantos países se independizaron entre 1920 y 1950.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) FROM country WHERE IndepYear BETWEEN 1920 [and](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) 1950;

1. Buscar cuantas ciudades hay en Francia cuyo nombre termine en “is”. Resultado: 1

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) FROM city WHERE CountryCode = 'FRA' [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) Name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-comparison-functions.html%23operator_like) '%is';

1. Mostrar en una línea la media, el máximo y el mínimo de los años de independencia de todos los países del mundo. Resultado: 1847.2604, 1994, -1523

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(IndepYear), [MAX](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_max)(IndepYear), [MIN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_min)(IndepYear) FROM country;

1. Mostrar los continentes donde haya países con el año de independencia informado. Resultado: Asia, Africa, Europe, South America, North America y Oceania.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) Continent FROM country WHERE IndepYear [IS](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html%23operator_is) [NOT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_not) NULL GROUP BY Continent;

1. Cuántos países hay en el continente África. Resultado: 58.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) FROM country WHERE Continent = 'Africa';

1. Mostrar el número de países por cada año de independencia, donde el año de independencia sea superior a 1980. Resultado: 8 filas.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) IndepYear, [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(country.IndepYear) FROM country WHERE country.IndepYear > 1980 GROUP BY country.IndepYear;

1. Mostrar los años de independencia en los que dos o más países la consiguieron, donde el año de independencia sea superior a 1980. Resultado: 4 filas.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*), IndepYear FROM country WHERE country.IndepYear > 1980 GROUP BY country.IndepYear HAVING [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) > 1;

1. Mostrar las ciudades del mundo que existen más de una vez y cuántas veces se repiten. Resultado: 67 filas.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name, [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(city.name) FROM city GROUP BY city.Name HAVING [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) > 1;

1. Mostar las ciudades de más de un millón de habitantes donde se hable español en el país. Resultado: 39 filas.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name, countrylanguage.Language FROM city, countrylanguage WHERE city.Population > 1000000 [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) countrylanguage.Language = 'Spanish' [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) city.CountryCode = countrylanguage.CountryCode;

1. Mostrar el número de clientes que ha comprado el producto S24\_1937. Resultado: 24 clientes.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) DISTINCT customers.customerNumber FROM customers, orders, orderdetails WHERE orderdetails.productCode = 'S24\_1937' [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) customers.customerNumber = orders.customerNumber [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) orders.orderNumber = orderdetails.orderNumber;

1. Obtener para cada categoría de producto (productLine) el precio máximo, mínimo y medio de la categoría.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) productlines.textDescription, [MAX](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_max)(products.buyPrice), [MIN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_min)(products.buyPrice), [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(products.buyPrice) FROM products, productlines WHERE productlines.productLine = products.productLine GROUP BY 1;

1. Obtener la lista de empleados con el nombre de su jefe.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) concat(a.firstName, a.lastName) as empleado, concat(b.firstName, b.lastName) as jefe FROM employees as a, employees as b WHERE a.reportsTo = b.employeeNumber;

1. Obtener las ventas de cada empleado por meses.

[select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) concat(employees.firstName,' ', employees.lastName) as empleado , extract(YEAR\_MONTH from orders.orderDate) as aniomes , [sum](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_sum)(orderdetails.quantityOrdered\*orderdetails.priceEach) from classicmodels.customers, classicmodels.orders, classicmodels.orderdetails, classicmodels.employees where customers.customerNumber = orders.customerNumber [and](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) orders.orderNumber = orderdetails.orderNumber [and](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) customers.salesRepEmployeeNumber = employees.employeeNumber group by 1,2;

1. Obtener el país de la oficina y el número de clientes que tiene cada oficina.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) offices.country as oficina, [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(customers.customerName) as clientes FROM offices [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-functions.html%23function_left) JOIN employees ON employees.officeCode=offices.officeCode [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-functions.html%23function_left) JOIN customers ON customers.salesRepEmployeeNumber = employees.employeeNumber GROUP BY 1;

1. Obtener las deudas de los clientes.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) customers.customerName, pagos.Pagado, compras.CargoTotal, (compras.CargoTotal-pagos.Pagado) AS "Deuda"

FROM ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) payments.customerNumber, [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_sum)(payments.amount) AS "Pagado" FROM payments GROUP BY payments.customerNumber) AS pagos [RIGHT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-functions.html%23function_right) JOIN ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) orders.customerNumber, [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_sum)(orderdetails.priceEach\*orderdetails.quantityOrdered) AS "CargoTotal" FROM orders JOIN orderdetails ON orders.orderNumber=orderdetails.orderNumber GROUP BY 1) AS compras ON pagos.customerNumber=compras.customerNumber [RIGHT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-functions.html%23function_right) JOIN customers ON compras.customerNumber=customers.customerNumber;

1. Obtener las ciudades que hay en Europa (subselect).

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name FROM city WHERE city.CountryCode [IN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html%23function_in) ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) country.Code FROM country WHERE country.Continent = 'Europe');

1. Obtener la lista de ciudades de España cuya población sea superior a la media de poblaciones de España.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name, city.Population FROM city WHERE city.Population > ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(city.Population) FROM city WHERE city.CountryCode = 'ESP') [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/logical-operators.html%23operator_and) city.CountryCode = 'ESP';

1. Obtener aquellas ciudades cuya media de población sea mayor que la media de población de su país.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) city.Name,Population from city where city.Population> any([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_avg)(city.Population) from city where city.CountryCode=city.CountryCode);

1. Obtener aquellos clientes que no tienen pedidos.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) customers.customerName FROM customers [LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/string-functions.html%23function_left) JOIN orders ON customers.customerNumber = orders.customerNumber WHERE orders.customerNumber [IS](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html%23operator_is) null;

1. Obtener países en los que se hable solo una lengua.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) country.Name FROM country JOIN countrylanguage ON country.Code = countrylanguage.CountryCode GROUP BY country.Code HAVING [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_count)(\*) = 1;

1. Obtener aquellos productos cuyo precio sea máximo de cada línea de producto.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) productName, buyPrice FROM products comparacion WHERE buyPrice = ([SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [MAX](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_max)(buyPrice) FROM products WHERE comparacion.productLine = products.productLine);