**1.1.3 Queries on a table**

1. List the name of all the products in the table producto.
2. Lists the names and prices of all the products in the table producto.
3. List all the columns in the table producto.
4. List the name of the products, the price in euros, and the price in US dollars (USD).
5. List the name of the products, the price in euros, and the price in US dollars (USD). Use the following aliases for columns: nombre de producto, euros, dólares.
6. Lists the names and prices of all the products in the table producto, capitalizing the names.
7. Lists the names and prices of all the products in the table producto, converting the names to lowercase.
8. List the name of all manufacturers in one column, and in another column get the first two characters of the manufacturer's name in uppercase.
9. Lists the names and prices of all the products in the table producto, rounding the price value.
10. Lists the names and prices of all the products in the table producto, truncating the price value to show it without any decimal places.
11. List the code of manufacturers that have products in the table producto.
12. List the code of the manufacturers that have products in the table producto, eliminating the codes that appear repeated.
13. Lists the manufacturers' names in ascending order.
14. Lists the manufacturer names in descending order.
15. Lists the names of the products sorted first by name ascending and second by price descending.
16. Returns a list with the first 5 rows of the table fabricante.
17. Returns a list with 2 rows starting from the fourth row of the table fabricante. The fourth row must also be included in the answer.
18. List the name and price of the cheapest product. (Use only clauses ORDER BYand LIMIT)
19. List the name and price of the most expensive product. (Use only clauses ORDER BYand LIMIT)
20. Lists the name of all the manufacturer's products whose manufacturer code is equal to 2.
21. List the name of the products that have a price less than or equal to € 120.
22. List the name of the products that have a price greater than or equal to € 400.
23. List the name of the products that **do not have** a price greater than or equal to € 400.
24. List all products that have a price between € 80 and € 300. Without using the operator BETWEEN.
25. List all products that have a price between € 60 and € 200. Using the operator BETWEEN.
26. List all the products that have a price greater than € 200 and that the manufacturer code is equal to 6.
27. List all products where the manufacturer code is 1, 3 or 5. Without using the operator IN.
28. List all products where the manufacturer code is 1, 3 or 5. Using the operator IN.
29. List the name and price of the products in cents (The price value will have to be multiplied by 100). Create an alias for the column that contains the price to be called céntimos.
30. Lists the names of manufacturers whose names begin with the letter S.
31. List the names of manufacturers whose names end with a vowel e.
32. Lists the names of manufacturers whose name contains the character w.
33. Lists the names of manufacturers whose name is 4 characters long.
34. Returns a list with the name of all the products that contain the string Portátilin the name.
35. Returns a list with the name of all the products that contain the string Monitorin the name and have a price less than € 215.
36. List the name and price of all products that have a price greater than or equal to € 180. Sort the result first by price (in descending order) and second by name (in ascending order).

**1.1.4 Multi-table queries (Internal composition)**

Resolve all queries using the syntax SQL1and SQL2.

1. Returns a list with the product name, price and manufacturer name of all the products in the database.
2. Returns a list with the product name, price and manufacturer name of all the products in the database. Sort the result by the name of the manufacturer, in alphabetical order.
3. Returns a list with the product code, product name, manufacturer code, and manufacturer name, of all the products in the database.
4. Returns the name of the product, its price and the name of its manufacturer, of the cheapest product.
5. Returns the name of the product, its price and the name of its manufacturer, of the most expensive product.
6. Returns a list of all the manufacturer's products Lenovo.
7. Returns a list of all the manufacturer's products Crucialthat have a price greater than € 200.
8. Returns a list with all the manufacturers' products Asus, Hewlett-Packardand Seagate. Without using the operator IN.
9. Returns a list with all the manufacturers' products Asus, Hewlett-Packardand Seagate. Using the operator IN.
10. Returns a list with the name and price of all the products of the manufacturers whose name ends with the vowel e.
11. Returns a list with the name and price of all products whose manufacturer name contains the character win their name.
12. Returns a list with the product name, price and manufacturer name, of all products that have a price greater than or equal to € 180. Sort the result first by price (in descending order) and second by name (in ascending order)
13. Returns a list with the manufacturer's code and name, only of those manufacturers that have associated products in the database.

**1.1.5 Multi-table queries (External composition)**

Solve all queries using the LEFT JOINand clauses RIGHT JOIN.

1. It returns a list of **all the manufacturers** that exist in the database, along with the products that each of them has. The list should also show those manufacturers that do not have associated products.
2. Returns a list where only those manufacturers that do not have any associated product appear.
3. Can there be products that are not related to a manufacturer? Justify your answer.

**1.1.6 Summary queries**

1. Find the total number of products in the table productos.
2. Find the total number of manufacturers in the table fabricante.
3. Calculate the number of distinct manufacturer code values ​​listed in the table productos.
4. Find the average price of all the products.
5. Calculate the cheapest price of all products.
6. Calculate the most expensive price of all products.
7. List the name and price of the cheapest product.
8. List the name and price of the most expensive product.
9. Find the sum of the prices of all the products.
10. Calculate the number of products the manufacturer has Asus.
11. Find the average price of all the manufacturer's products Asus.
12. Calculate the cheapest price of all the manufacturer's products Asus.
13. Calculate the most expensive price of all the manufacturer's products Asus.
14. Find the sum of all the manufacturer's products Asus.
15. It shows the maximum price, minimum price, average price and the total number of products that the manufacturer has Crucial.
16. Shows the total number of products each manufacturer has. The list should also include manufacturers who do not have any products. The result will show two columns, one with the name of the manufacturer and the other with the number of products it has. Order the result descending by the number of products.
17. It shows the maximum price, minimum price and average price of the products of each of the manufacturers. The result will show the name of the manufacturer along with the data that is requested.
18. It shows the maximum price, minimum price, average price and the total number of products from manufacturers that have an average price greater than € 200. It is not necessary to show the manufacturer's name, the manufacturer's code is sufficient.
19. It shows the name of each manufacturer, along with the maximum price, minimum price, average price and the total number of products of the manufacturers that have an average price greater than € 200. It is necessary to show the name of the manufacturer.
20. Calculate the number of products that have a price greater than or equal to € 180.
21. Calculate the number of products that each manufacturer has with a price greater than or equal to € 180.
22. List the average price of each manufacturer's products, showing only the manufacturer's code.
23. It lists the average price of each manufacturer's products, showing only the manufacturer's name.
24. List the names of manufacturers whose products have an average price greater than or equal to € 150.
25. Returns a list with the names of manufacturers that have 2 or more products.
26. Returns a list with the names of the manufacturers and the number of products each has with a price equal to or greater than € 220. It is not necessary to show the name of manufacturers who do not have products that meet the condition.

Example of the expected result:

| **Name** | **total** |
| --- | --- |
| Lenovo | two |
| Asus | one |
| Crucial | one |

1. Returns a list with the names of the manufacturers and the number of products each has with a price equal to or greater than € 220. The list must show the name of all the manufacturers, that is, if there is a manufacturer that does not have products with a price greater than or equal to € 220, it must appear in the list with a value equal to 0 in the number of products.

Example of the expected result:

| **Name** | **total** |
| --- | --- |
| Lenovo | two |
| Crucial | one |
| Asus | one |
| Huawei | 0 |
| Samsung | 0 |
| Gigabyte | 0 |
| Hewlett-Packard | 0 |
| Xiaomi | 0 |
| Seagate | 0 |

1. Returns a list with the names of the manufacturers where the sum of the price of all their products is greater than € 1000.
2. Returns a list with the name of the most expensive product that each manufacturer has. The result should have three columns: product name, price, and manufacturer name. The result has to be ordered alphabetically from lowest to highest by the name of the manufacturer.

**1.1.7 Subqueries (In the clause WHERE)**

**1.1.7.1 With basic comparison operators**

1. Returns all products from the manufacturer Lenovo. (Not used INNER JOIN).
2. Returns all data for products that have the same price as the manufacturer's most expensive product Lenovo. (Not used INNER JOIN).
3. List the name of the manufacturer's most expensive product Lenovo.
4. List the name of the cheapest product from the manufacturer Hewlett-Packard.
5. Returns all products in the database that are priced higher than or equal to the manufacturer's most expensive product Lenovo.
6. Lists all the manufacturer's products Asusthat are priced higher than the average price of all their products.

**1.1.7.2 Subqueries with ALLandANY**

1. Returns the most expensive product that exists in the table productowithout using MAX, ORDER BYor LIMIT.
2. Returns the cheapest product that exists in the table productowithout using MIN, ORDER BYor LIMIT.
3. Returns the names of manufacturers that have associated products. (Using ALLor ANY).
4. Returns the names of manufacturers that have no associated products. (Using ALLor ANY).

**1.1.7.3 Subqueries with INandNOT IN**

1. Returns the names of manufacturers that have associated products. (Using INor NOT IN).
2. Returns the names of manufacturers that have no associated products. (Using INor NOT IN).

**1.1.7.4 Subqueries with EXISTSandNOT EXISTS**

1. Returns the names of manufacturers that have associated products. (Using EXISTSor NOT EXISTS).
2. Returns the names of manufacturers that have no associated products. (Using EXISTSor NOT EXISTS).

**1.1.7.5 Correlated subqueries**

1. List the name of each manufacturer with the name and price of their most expensive product.
2. Returns a list of all the products that have a price greater than or equal to the average of all the products of the same manufacturer.
3. List the name of the manufacturer's most expensive product Lenovo.

**1.1.8 Subqueries (In the clause HAVING)**

1. Returns a list with all the names of the manufacturers that have the same number of products as the manufacturer Lenovo.