

EXERCISE LIST N° 3: SQL Queries (Data Manipulation Language)

The relational model that we are going to use for this exercise list corresponds to the database of an enterprise fixing air-conditioners. It is the same as in exercise list number one.

CUSTOMER (cust_no, name, surname, address, city, ZIP, tel)
PRODUCT (reference, designation, unit_price, stock_quantity, min_quantity)
INVOICE (inv_no, date, state, customer#)
REPLACEMENT (product#, intervention#, qty)
INTERVENTION (interv_no, date, technician#, duration, invoice#)
TECHNICIAN (tech_no, name, hour_rate)

Translate these queries into SQL.

As it is the same queries as in the exercise list number 1, so you can use the translation from linear algebra seen in the lecture Chapter 4-part2.

1. Which are the references and designations of all the products in the database?
2. Which are the references of the products which have already been replaced at least once (the ones that appear in at least in one replacement)?
3. Which are the references and designations of the products which price is higher than 15€?
4. What is the address of the customer “Dallalon”?
5. Names of all the persons in the database (customers or technicians)?
6. References of the products which price is higher than 15€ and have already been replaced at least once (the ones that appear in at least in one replacement)?
7. References of the products which have never been replaced?
8. Which are the numbers, dates and durations of the interventions corresponding to invoices that have already been regulated (state='R')?
9. Which are the numbers (interv_no), dates and durations of the interventions carried out by the technician “Foucher”?
10. Numbers of the invoice(s) (inv_no) assigned to the customer “Rivoire”?
11. Designations of all the products replaced during the interventions held on the 3rd of July 2020?
12. Numbers of the invoices not regulated yet (i.e. state≠'R'), along with the identifiers (numbers) of the corresponding interventions and with the name of the corresponding customer?

13. Dates of the invoices corresponding to interventions carried out by the technician “Saultier” where at least a product has been replaced?
14. Designation (names) of the products replaced for the customer “Provent”, along with the duration of the replacement and the state of the invoice?
15. Number of the invoices (inv_no) regulated from the customer “Rivoire”, together with the number of the invoices (inv_no) that are not regulated yet from the customer “Favero”?
16. The customer identifiers (cust_no) for whom no invoice has been issued?
17. Which are the identifiers of the invoices for which both the technicians « Bonnaz » and « Mauras » have worked?