Exercises — Lab Management - 1

version #

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Files to submit:
- lab_management_1/req01.sql
- lab_management_1/req02.sql
- lab_management_1/req03.sql
- lab_management_1/req04.sql
- lab_management_1/req05.sql
- lab_management_1/req06.sql
- lab_management_1/req07.sql

Provided files:
- lab_management_1/schema.sql
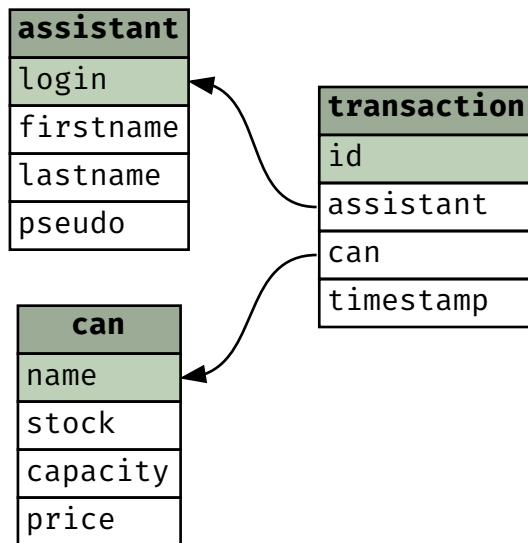- lab_management_1/data.sql

1.1 Goal

In this exercise, you will be asked to help Valérian Fayt to manage the products sold in the Assistants' Laboratory.

1.1.1 Tables

Look at the `schema.sql` to fully understand what is expected of you.

1.1.2 Relationships

```
┌─────────────┐
│  assistant  │
├─────────────┤
│ login       │◄─┐
├─────────────┤  │
│ firstname   │  │
├─────────────┤  │
│ lastname    │  │
├─────────────┤  │
│ pseudo      │  │
└─────────────┘  │
                 │
┌─────────────┐  │
│     can     │  │
├─────────────┤  │
│ name        │◄─┘
├─────────────┤
│ stock       │
├─────────────┤
│ capacity    │
├─────────────┤
│ price       │
└─────────────┘

┌───────────────┐
│  transaction  │
├───────────────┤
│ id            │
├───────────────┤
│ assistant     │
├───────────────┤
│ can           │
├───────────────┤
│ timestamp     │
└───────────────┘
```

1.1.3 Exercises

Below is the list of exercises you must submit. If the type of ordering is not specified, then it must be ascending.

`req01.sql`

Display the name, the stock and the price of the cans. These must be ordered by name.

```
    name    | stock | price
------------+-------+-------
 Canada Dry |    10 |  0.85
 CandyUp    |   100 |  0.50
 Coca-Cola  |   200 |  0.70
 Fanta      |   130 |  0.70
 Monster    |    30 |  1.40
 Oasis      |   100 |  0.70
 Orangina   |   125 |  0.70
 Perrier    |    40 |  0.70
 Redbull    |    50 |  1.70
(9 rows)
```

req02.sql

Display the number of cans bought by julien.clement.

```
 count
-------
     3
(1 row)
```

req03.sql

Display the price of a CandyUp. All prices must be rounded to the cent.

```
 price
-------
  0.50
(1 row)
```

req04.sql

Display the logins of the assistants that bought at least one can of Coca-Cola. Logins must appear only once. The results must be ordered by login.

```
    assistant
---------------
 nicolas.guerguadj
 thomas.joubert
(2 rows)
```

req05.sql

Retrieve the most recent transaction. Display the login of the buyer, the can name and the timestamp for this transaction.

```
 id |   assistant    |    can    |      timestamp
----+----------------+-----------+--------------------
 18 | thomas.joubert | Canada Dry | 2021-12-25 14:11:00
(1 row)
```

```
req06.sql
```

Display the logins of the assistants that never bought any can, ordered alphabetically.

```
  login
---------
 hoppy
 login_x
(2 rows)
```

```
req07.sql
```

Display the three assistants that spent the most money on cans, followed by the total cash they spent.

```
     assistant      | price
--------------------+-------
 thomas.joubert     |  6.20
 nicolas.guerguadj  |  3.80
 julien.clement     |  2.10
(3 rows)
```

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