

### Case study 3: Analyze sales transactional data

**Objective :**

- Transform by creating data groupings
- Model using filters on data using DAX formulas
- Model by organizing DAX code (variables, comments, etc.)
- Create the time dimension in DAX language
- Design user interactivity in future user-configurable dashboard

**Question:**

1. Extract the tables, concerned by the study, of the two databases contained in the "Order processing.xlsx" and "Products.txt" files make the necessary transformations (The date format must be dd/MM/YYYY) and load them in power pivot
2. Check the diagram and the links between fact table and dimension tables. And make the appropriate design (Star, snowflake, etc.) allowing the modeling and visualizations below.
3. Create a metric that finds the total quantity ordered (per customer, per order, etc.)
4. Create a measurement that allows you to find, for each customer, the maximum quantity ordered.
5. Create a metric that finds the number of orders placed.
6. Create a "focus" measurement which makes it possible to follow, in particular, the quantities ordered of the products: "Aspirateur" et "Lave-vaisselle" by the "Open store" customer.
7. Organize the DAX code so that:
  - Each filter is affected to a variable
  - The code is structured in several lines with comments
  - Formulas call for variables, not parameter expressions
  - Etc.
8. Create the "Summary" dashboard in which two simple tables will be presented, the first of which presents, for each customer, the total quantity ordered, the maximum quantity ordered, number of orders placed. The second table contains, for each order date, the quantities ordered of the "Aspirateur" and "Lave-vaisselle" products by the "open store" customer.
9. Create the "Interactive" dashboard in which a histogram will be displayed presenting, for each customer, either (depending on the user's choice): The total quantity ordered, the maximum quantity ordered or the number of orders placed. And this, by means of a segment which presents the choice between these three measures
  - a. Create a new "list of measurements" table with a "choice of measurements" column and having the three measurements as data.
  - b. Create a "report" measurement allowing you to execute the measurement corresponding to the Measure that will be selected by the user
  - c. Handled the case where no measurement is selected by the user

10. In the “interactive” dashboard, present a curve allowing you to display the orders placed by each day of the week. To do this, you must create the Time dimension (the date table) configured according to the needs of the study.
11. The two result dashboards will have the following form:

*No. The Interactive dashboard boils down to the client “Babii”, “Dream wash” and “Full store”*

