Case assignment 2 – Tableau (part 1 of 2)
Champagne

In this case, we use the solution from case assignment 1 on Champagne (data modeling).

The solution for case assignment 1 (*Solution for case assignment 1 _ Data modeling _ Champagne*) is provided along with the text for case assignment 2. In particular, this solution gives the conceptual entity-relationship (ER) schema, the logical snowflake schema, and the list of Excel worksheets.

The files **provided** and used in this case contain the data modeled in case assignment 1. The data are stored in Excel files (workbooks). There is one Excel file for each of the four snowflakes. These files are also provided with the text of case assignment 2 (*Data OK for Tableau case.zip*).

IMPORTANT:
The data in these four Excel files are all the data you need for this case. **Do not modify these files, and connect to the data Live** (the default in Tableau).

The data for this case assignment (and case assignment 1) come from the following sources:
https://www.champagne.fr/assets/files/economie/bulletin_expeditions_2018.pdf,
https://stats.agriculture.gouv.fr/disar-saiku/?plugin=true&query=query/open/D_0021#query/open/D_0021,
https://www.cia.gov/library/publications/the-world-factbook/rankorder/rawdata_2119.txt, and
https://europa.eu/european-union/about-eu/countries_en.
Shipment volumes and values concern Champagne only, and trade balance concerns different sub-types of alcoholic beverages (including Champagne and sparkling wines). Shipment volumes are in bottles, shipment values and trade balance values are in thousand euros. Domestic shipments only include shipments to Metropolitan France. Trade balance is the trade balance of France vis-à-vis other countries.
Note that some but not all alcoholic beverages types are refined into different sub-types. For types that are not refined, the sub-type is the same as the type.

Questions:

1. Create the connections to the Excel files (extracts are not needed – use **live** connections). Modify the dimensions and measures as needed, and create the hierarchies. Pay special attention to dates, geographical roles of dimensions, and default aggregation of measures.

2. Create the visualizations answering the following questions (**name your sheets and dashboard explicitly using the number of the question, e.g. Q2.1, Q2.2**, …):

2.1. Create a bar chart showing, for year 2018, the shipment volume and the shipment volume by inhabitant (create a calculated field), for the countries of the European Union. The bar chart shall be ordered by decreasing shipment volume.

2.2. Create a scatter plot showing the trade balance value for Champagne and sparkling wines and the shipment volume (i.e., the shipment volume of Champagne), detailed by year (for the period 2016 to 2018).

2.3. Create a map showing the shipment volume to countries of the European Union over the last two years. Only the top 10 countries of the European Union (as measured by Champagne shipment volume) will be shown.

2.4. Create the most appropriate visualization to comparatively study the monthly evolution of the trade balance value of Champagne and sparkling wines, distilled alcoholic beverages, and wines, over the last two years, and to observe if there is some seasonality in the data. In this graph, show the trends of the trade balance values.

2.5. Create a dashboard with a map showing the shipment volume by country, for a year chosen by the user. In this map, it should be possible to have an aggregated view of the shipment volume by area. The map will be synchronized with a chart showing the percent of the different families of producers in the shipment volume, for the current area of the map and the year that has been chosen by the user.

You work in the same groups as for case 1 (tell me *in advance* in case of changes), and submit your case through the Web site of the course ("*Assignments*"). Deadline: *before the class of May 29*. The attached file should be the Tableau workbook (file extension: **.twb, everything in the same workbook**).