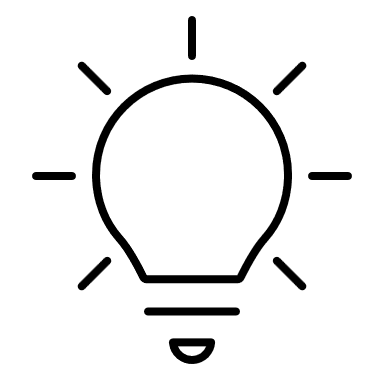
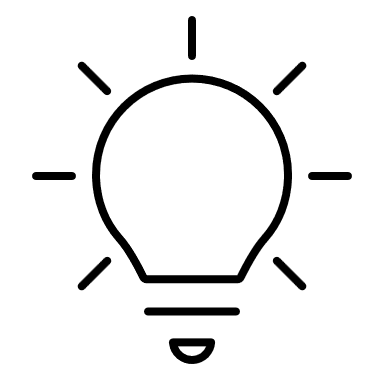
A big part of business sustainability is defined by their profitability i.e., the difference between their income and costs. At the point where managing a million orders per month is called a slow month, companies must keep the finger on the pulse of their expenses by implementing a cost monitoring system, and, while there are many ways how to approach this task, we are going to be combining Power Bi with some entry level statistics to create an effective and reliable solution that fits our business needs.

For this task, we will be using the source files available at the beginning of this course, where we are going to be looking at the **freight value** (cost of shipping goods) as our company’s single expense, by different product categories and shipping regions in Brazil. Your objective will be creating an automatic monitoring system to track any anomalies within the charged freight value.

To successfully complete this task, you will have to do the following:

1. Perform data cleaning and transformations,  
   * Column “****order\_item\_id****” is a sequence of ordered item quantity in a single order\_id*
2. Creating an optimal model,
3. Creating a grouped table, that combines necessary facts and dimensions,
4. Calculating Q1, Q3, IQR, Lower Quartile and Upper Quartile  
   ** [*https://en.wikipedia.org/wiki/Interquartile\_range*](https://en.wikipedia.org/wiki/Interquartile_range) *find “***lower 1.5\*IQR whisker**” and “**upper 1.5\*IQR whisker**”
5. Adding Lower and Upper Quartile to fact table as the defined normal range for different costs
6. Creating a Boolean function to point out all (if any) of the anomalies
7. Create a report to showcase the results.

**--------------------------------------------- BONUS ---------------------------------------------**

Create alerts in Power BI Service (SAAS) to receive notifications on registered anomalies.