Lab 2: Granularity, Measures, and Hierarchies

Part 1: Build a hierarchy

Load `2_1_build_hierarchy.pbix` from the Exercises folder on the desktop.

- In the *Data* view, create a hierarchy on `SUBSECTOR` in the `NAICS Code` dimension.
- Rename the hierarchy to `NAICS Code hierarchy`.

Add on the following columns in this order to the hierarchy: `Industry group` and `2017 NAICS Code`.

- Navigate to the *Report* view and create a new page called `Summary Stats`.
- Add a new *Treemap* visual, with the values of `Number of employees` from the `Summary Statistics for Manufacturing` dataset split by the `NAICS Code hierarchy`.

Add a *Slicer* for `Year` (from `Summary Statistics for Manufacturing`) and set to 2018.

Enable "Drill down" on the treemap by selecting the down arrow marked "Click to turn on Drill down." Try and click on a category on the treemap to drill into.

How many employees were hired in manufacturing sector with 2017 NAICS Code "325510" in the year 2018?

Part 2: Change the granularity of a query

- In Power Query, duplicate the `Business Establishment by Age` query.
- Rename it to `Establishments`.

Select the `id` and `Year` columns and then open the *Group By* menu.

In the "Group By" window, add a new column name: `AvgEmployees`, as the average of the `Number of employees`. Then close and apply the changes.

- In the *Report* view, create a new page called `Establishments`.
- Add a *Line chart* visual, of `AvgEmployees` by `Year` from the `Establishments` table.

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In which year in this dataset did the smallest average number of employees in the manufacturing sector occur?

- ○ 2009
- ○ 2010
- ○ 2011

Part 3: Measures and quick measures

In the `Business Establishment by Age` table, create a new measure called `Employees per Firm`, as the sum of `Number of employees` divided by the sum of `Number of firms`.

- Create a quick measure.
- Use `Average per category` as the *Calculation*, the sum of `Number of employees` from `Business Establishment by Age` as the *Base value*, and `Establishment age code` from `Establishment Age Code` as the *Category*.
- Call this new measure `Average Number of Employees by Age`.

- Create a new page called `Jobs`.
- Add a *Table* visual, with the following columns: `Geographic Area Name`, `Year`, `Employees per Firm`, and `Average Number of Employees by Age` from the `Business Establishment by Age` table.

Which state had the single smallest number of employees per firm in the dataset, over all years?

What was the average number of employees by age for that state and year?