Exercise 1: Getting started

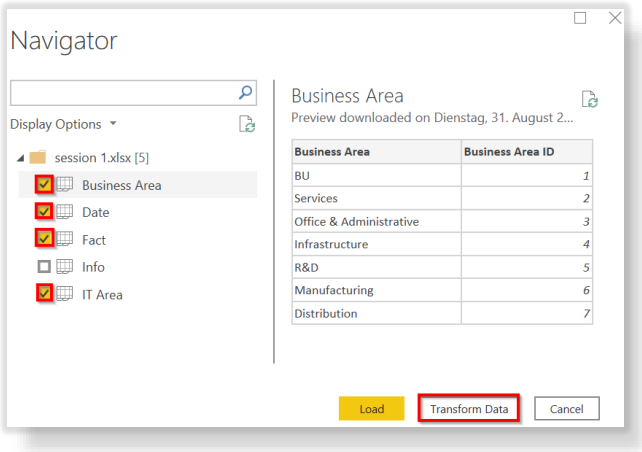
Make sure to regularly save your progress.

- If you are an experienced user, you can skip the step-by-step tutorial and use the blue summaries as your instructions.

Part 1: Import, transform and load Exercise 1 data into Power BI

In the next steps you will import the data from the Excel into Power BI. You must make sure that all columns have the correct data type.

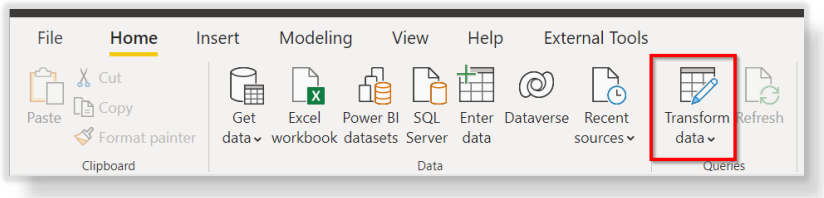
1. Open Power BI Desktop
2. Import following sheets from Exercise 1.xlsx:
    a. Business Area
    b. Fact
    c. IT Area
    d. Date



Hint

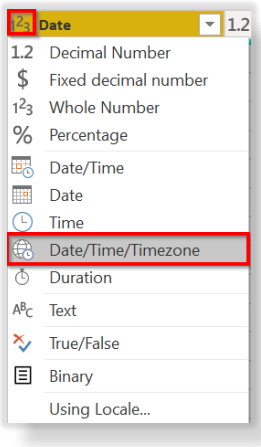
Click on "get data" and select "Excel Workbook". If required, confirm with "Connect" button. In Explorer that opens, navigate to folder where training data is locally stored and select "Exercise 1.xlsx". In Navigator that opens, activate selection for "Business Area", "Date", "Fact" and "IT Area" and click on "Transform Data".

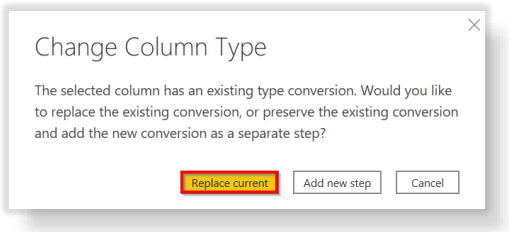
If you accidentally clicked on "load", then select "Transform Data" button on top menu:



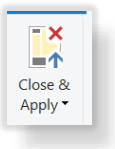
3. In the left Queries pane, click on "Fact" and make sure that the date column is defined as a datetime, i.e., next to "Date" is an icon showing a sphere with a clock: 

. If there is a different icon next to "Date", then click on the icon and select Date/ Time/ Time zone in the drop-down menu and subsequently confirm with "Replace current":





4. Confirm with "Close a& Apply" Button in top left corner:



Part 2: Analyze data by creating the following visuals

In the next steps, we analyse the data by creating the following graphs. Experienced users can use the screenshot shown in **Bonus 1** as a guide on which visuals to create.

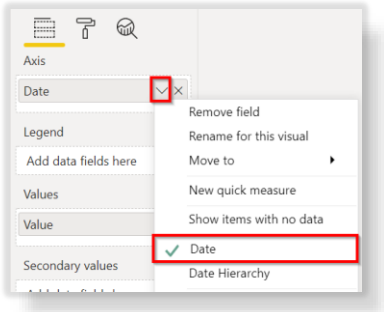
a) Line chart showing expenditure over time
b) Card displaying Count of distinct IT sub-areas
c) Card displaying Count of distinct IT sub-areas with expenditure in December 2014
d) Table listing all business areas
e) Line chart showing expenditure over time with business areas as legend
f) Matrix showing expenditures by month and IT Area

5. In model view: Take a closer look at data model.
6. In data view: Take a closer look at data.
7. In Report View:
   a. Add a line chart with the total expenditures(field "Value" in table "Fact") over the year

      Hint

      Add 'Fact'[Date] as Axis + 'Fact'[Value] as Values in Axis field

   b. In dropdown menu next to Date: change "Date Hierarchy" to "Date")
   c. Add a Card displaying the total number of IT Sub Areas



Hint

Pick field [IT Sub Area] or [IT Sub Area ID] from the 'Fact' table. Change the aggregation to "COUNT(Distinct)"'

d. Add a Card displaying the number of IT Sub Areas with total expenditures in December 2014

Hint

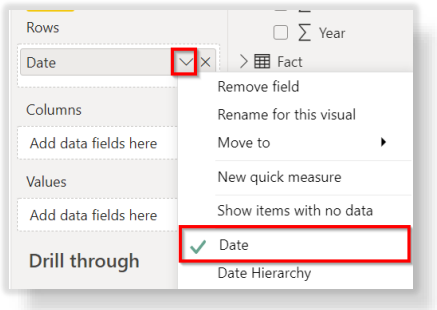
Pick [IT Sub Area ID] from 'Fact' table and add date filter for 1st December 2014. Change the aggregation to "COUNT(Distinct)".

e. Add a table with Business Areas

Hint

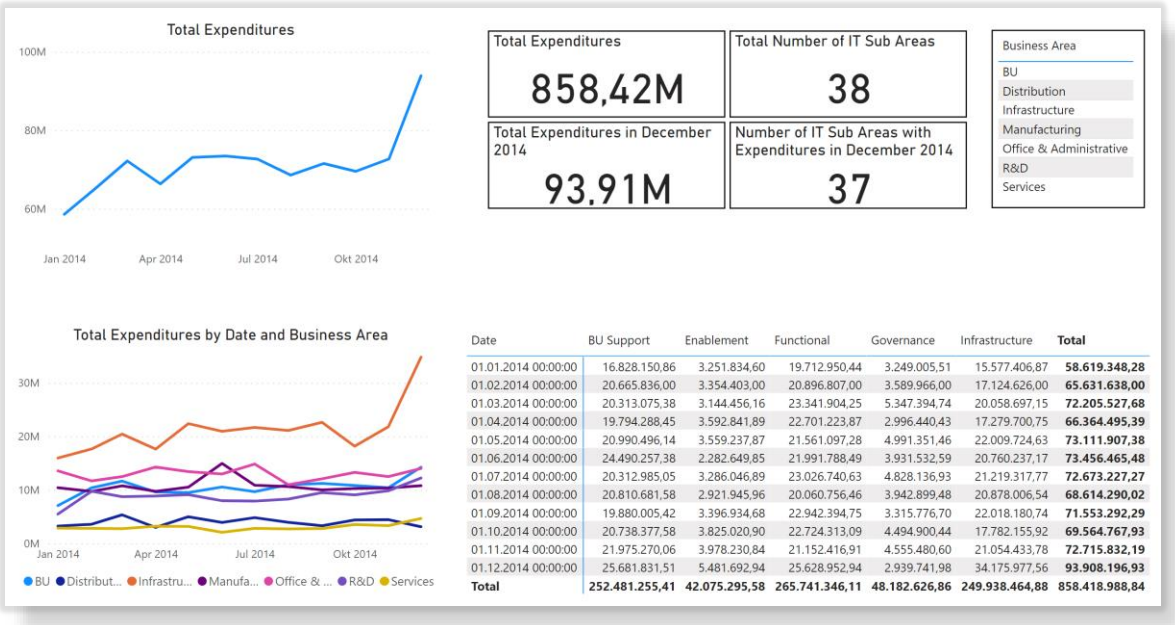
Pick "Business Area" from table "Business Areas"

f. Click on entries in Business Area table and observe how the other visuals are affected
g. Copy the line chart and add Business Area as Legend
h. Press "Ctrl" key (German Keyboard: "Strg") and select different Business Areas in the Business Area table. Observe how total expenditures varies depending on the selection.
i. Add a Matrix visual and add 'Fact'[Date] as Rows and 'IT Areas'[IT Area] as columns data and 'Fact'[Value] as "Values" data. Change display of [Date] from "Date Hierarchy" to "Date":



j. Click into the matrix visual and observe how the KPIs change depending on which cell is selected. Does it make a difference, if you click on a row title, column title or on one of the numerical values inside the table? Why?

Bonus 1: In Report View: try to format the visuals so they look like in the screenshot (numbers must match!)



Date	BU Support	Enablement	Functional	Governance	Infrastructure	Total
01.01.2014 00:00:00	16.828.150,86	3.251.834,60	19.712.950,44	3.249.005,51	15.577.406,87	**58.619.348,28**
01.02.2014 00:00:00	20.665.836,00	3.354.403,00	20.896.807,00	3.589.966,00	17.124.626,00	**65.631.638,00**
01.03.2014 00:00:00	20.313.075,38	3.144.456,16	23.341.904,25	5.347.394,74	20.058.697,15	**72.205.527,68**
01.04.2014 00:00:00	19.794.288,45	3.592.841,89	22.701.223,87	2.996.440,43	17.279.700,75	**66.364.495,39**
01.05.2014 00:00:00	20.990.496,14	3.559.237,87	21.561.097,28	4.991.351,46	22.009.724,63	**73.111.907,38**
01.06.2014 00:00:00	24.490.257,38	2.282.649,85	21.991.788,49	3.931.532,59	20.760.237,17	**73.456.465,48**
01.07.2014 00:00:00	20.312.985,05	3.286.046,89	23.026.740,63	4.828.136,93	21.219.317,77	**72.673.227,27**
01.08.2014 00:00:00	20.810.681,58	2.921.945,96	20.060.756,46	3.942.899,48	20.878.006,54	**68.614.290,02**
01.09.2014 00:00:00	19.880.005,42	3.396.934,68	22.942.394,75	3.315.776,70	22.018.180,74	**71.553.292,29**
01.10.2014 00:00:00	20.738.377,58	3.825.020,90	22.724.313,09	4.494.900,44	17.782.155,92	**69.564.767,93**
01.11.2014 00:00:00	21.975.270,06	3.978.230,84	21.152.416,91	4.555.480,60	21.054.433,78	**72.715.832,19**
01.12.2014 00:00:00	25.681.831,51	5.481.692,94	25.628.952,94	2.939.741,98	34.175.977,56	**93.908.196,93**
Total	**252.481.255,41**	**42.075.295,58**	**265.741.346,11**	**48.182.626,86**	**249.938.464,88**	**858.418.988,84**

Bonus 2: add a slicer visual with Business Areas and change the orientation, background color and script color, so it looks like the screenshot on the right.