



Data Manipulation and Reporting with Power BI



Module2 – Getting Familiar with Terminologies and Interface



Module Objectives

In this module, you will:

- Understand different Power BI terminologies, and
- Get familiar with the Power BI interface





Power BI Terminologies



PowerBI Terminologies

- Following are some of the commonly used terminologies in PowerBI:

Datasets

Custom Visuals

Report View

Reports

DAX

Data View

Visualization

Drill

Relationships View

Dashboards

Interactions

Columns

Parameter

Fields

Measures

Fundamental Concepts

- **Datasets**

Dataset refers to a collection of data that you connect to, or import from disparate source systems. All the available datasets appear in the “Fields” section within Power BI Desktop. These datasets can be used to create visuals or, as parameters for creating new measures or columns.

- **Reports**

One or more pages of visualizations are referred as Reports. In Power BI Desktop, additional pages appear as tabs in the bottom of the report viewer. New tabs can be added to the report. Report pages can be duplicated, renamed, or deleted.

- **Visualization**

The collection of built-in functionality that allows you to display data in a “visual form”. These include bar/line/donut charts, maps, filters, tables, matrices, cards, and much more.

- **Dashboards**

In Power BI, dashboards are referred as customized view of a subset of the dataset, that can be easily shared with others.



Fundamental Concepts

- **Parameter**

Parameters are managed through the “Manage Parameters” button. Parameters are easy to create and can be used as data sources, replace values/rows functions, and filter rows functions.

- **Custom Visuals**

These are the visuals that are created by the PowerBI community. These visuals can be downloaded from the custom visual gallery and imported into Power BI Desktop.

- **DAX**

Data Analysis Expressions (DAX) is the functional formula language used throughout Power BI Desktop. DAX functions are similar to functions used in Excel, though DAX offers much more functionality. To show a very simple use of DAX, you can create a new measure that represents today’s date. In this example, the measure is defined as “TodaysDate = TODAY()”, where “TODAY()” is a DAX function that resolves to the current date.

- **Drill**

Hierarchical data visuals can be edited for drill-down use. By enabling drill-down, the visual changes to display the next “level” of data in the same chart. Ex: Drilling from yearly to quarterly to monthly data.

Fundamental Concepts

- **Interactions**

The edit interaction button in the format menu allows for modification to the default interaction behavior, allowing you to filter, cross-highlight, or ignore changes to other visuals.

- **Fields**

The fields list contains all data sources, including columns, measures and calculated columns that can be in visuals, filters, etc.

- **Report View**

One of the three views in Power BI Desktop. The report view is the visual creation view, where you drag/drop visuals onto the canvas to create the data display.

- **Data View**

One of the three views in Power BI Desktop. The data view allows you to view the data after it has been loaded into the data model. It is helpful to quickly view the data when building visuals by switching to the data view to inspect the data.



Fundamental Concepts

- **Relationships View**

One of the three views in Power BI Desktop. The relationship view shows all tables, columns, and relationships in a visual display to help understand the relationships between data.

- **Columns**

Also called as calculated columns, are evaluated for each row in a table and it gets saved back into the data model. Columns are really helpful when you want to apply DAX functions to each row in a table.

- **Measures**

Measures are evaluated when used in a visual and thus not saved into the model. Measures work well for aggregation (sum, average, etc.).



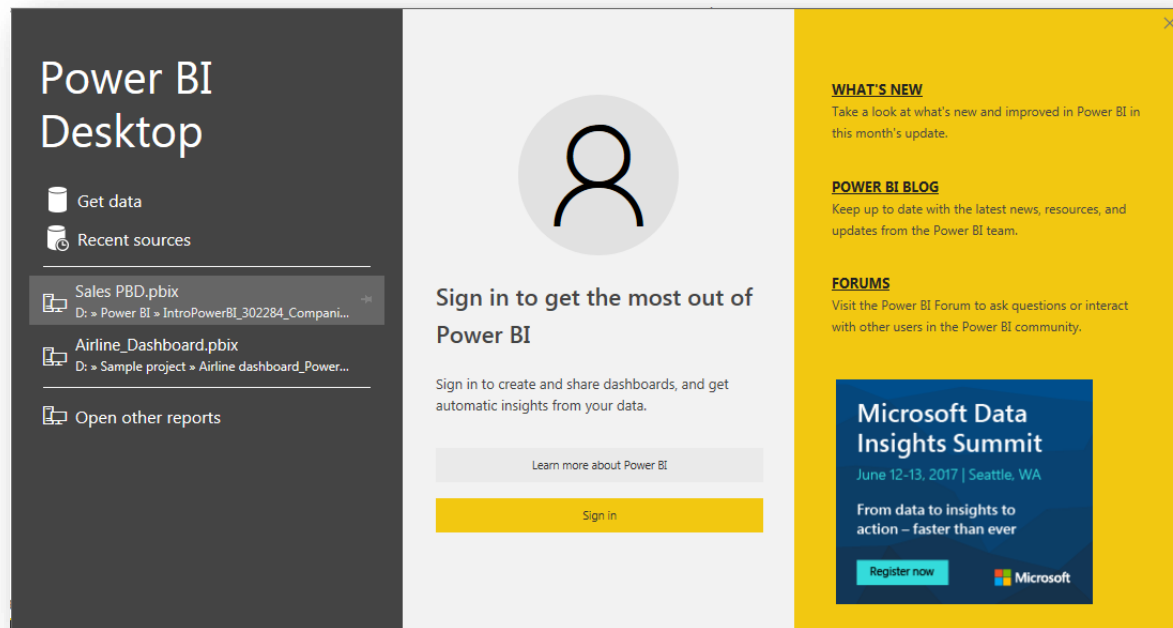


Power BI Interface



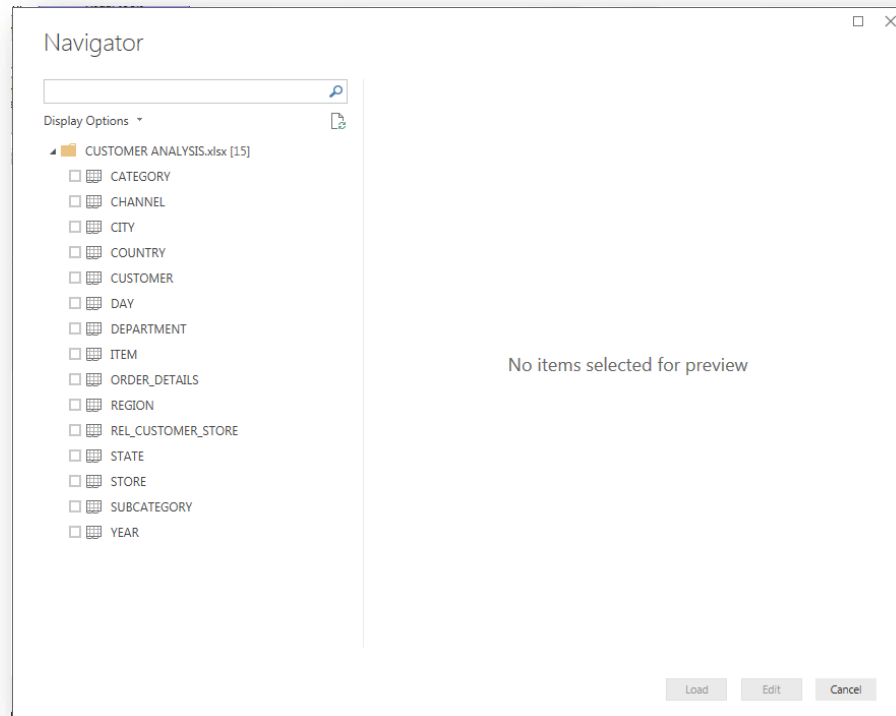
Welcome screen

- A start page is a central location from which you can connect to different data sources, sign in to your account, and so on.



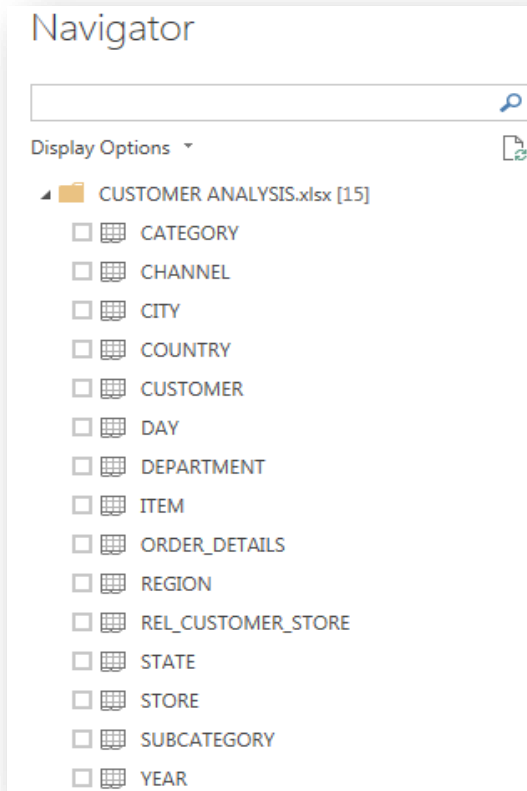
Navigator Window

- Navigator window displays information about a data source/s that you are connected to.



Navigator Window—Left Pane

- Left pane displays the name of the dataset and the tables in that dataset.



Navigator Window—Preview Area

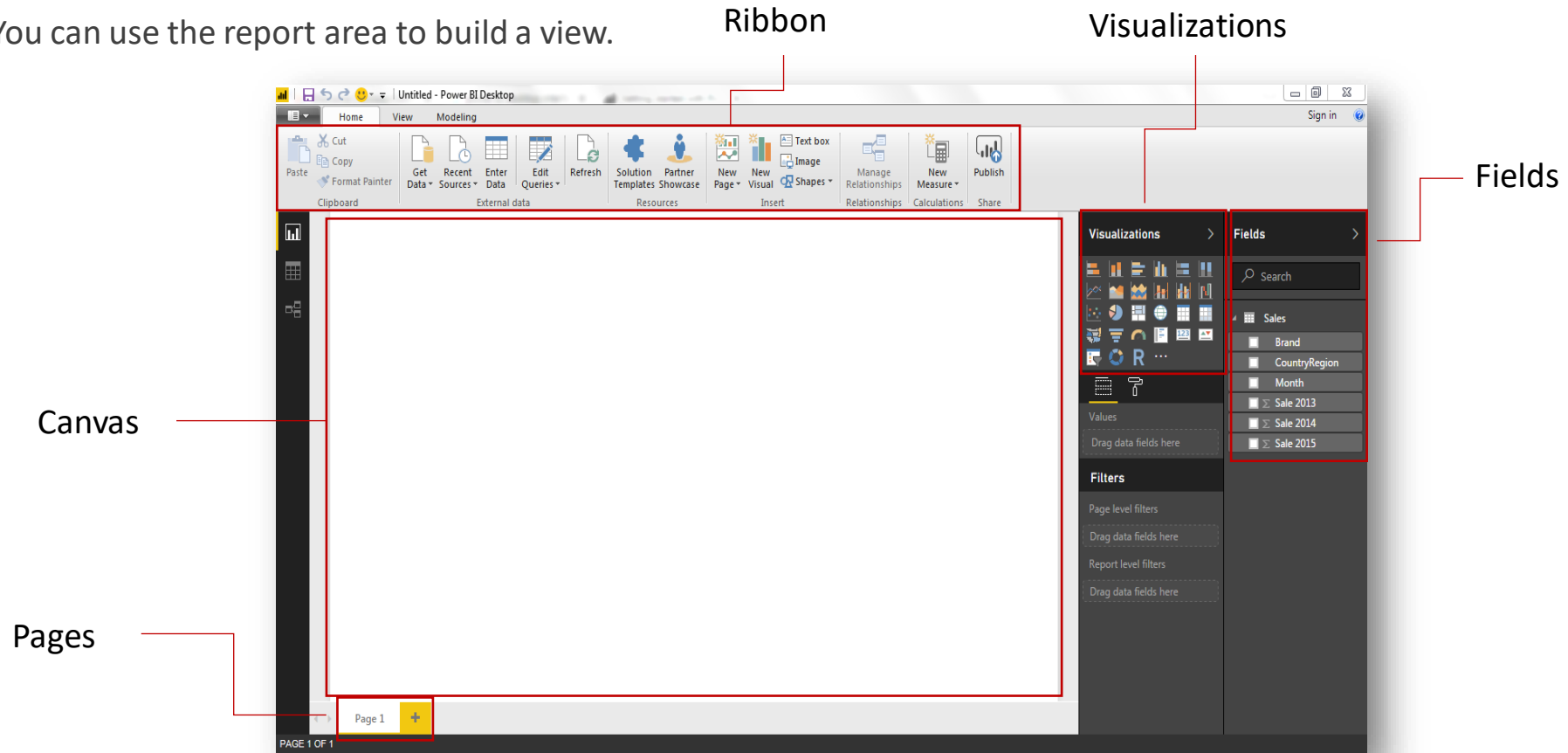
- You can use the preview area to review the fields and the rows of the data contained in the selected tables.

REGION

Region_ID	Region_Name	Country_ID
1	NorthEast	1
2	MidAtlantic	1
3	South	1
4	West	1

Report View

- You can use the report area to build a view.



Data View

- The data window shows structure of data in each table.

Modelling ribbon

Formula bar

Grid

CountryRegion	Brand	Month	Sale 2013	Sale 2014	Sale 2015	Sale 2013 (bins)
China	A. Datum	February	6270	7059		5000
China	A. Datum	March	4352			0
China	A. Datum	April	3814			0
China	A. Datum	May	6234			5000
China	A. Datum	June	5571	3216		5000
China	A. Datum	July	7424			5000
China	A. Datum	November		3653		
China	A. Datum	December	6135	2810		5000
China	Adventure Works	May		9203.92		
China	Adventure Works	July	9938.12	2819.82		5000
China	Adventure Works	September	16638.85			15000
China	Adventure Works	November	2819.82	959.92		0
China	Adventure Works	December		16694.07		
China	Contoso	November	7631.64	2412.91		5000
China	Contoso	December	21968.86	5657.7		20000
China	Fabrikam	January	5794.38	9244.97		5000
China	Fabrikam	February		6230		
China	Fabrikam	March	3415.96	1044.89		0
China	Fabrikam	November	9477.6	14941.87		5000
China	Fabrikam	December	15499.94	12740		15000
China	Litware	January		2209.73		
China	Litware	March	4.99	7956		0
China	Litware	April	599.9			0
China	Litware	November		3451		

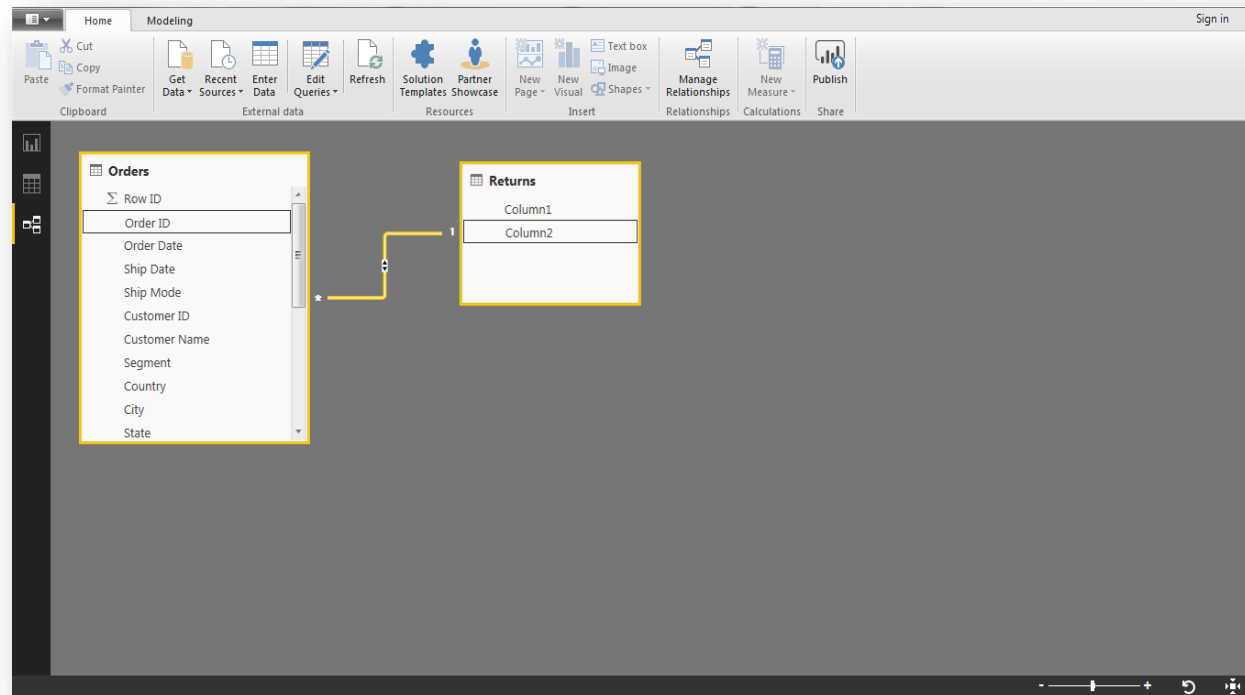
TABLE: Sales (382 rows) COLUMN: Sale 2013 (bins) (10 distinct values)

Search bar

Fields list

Relationship View

- Relationship window displays all of the tables, columns, and their relationships.





Quiz



Quiz

1) The view that allows you to drag/drop objects and create different visual is called as?

- Data View
- Relationship View
-  • Report View

2) Can DAX be used to create new Dimensions and Measures?

-  • Yes
- No

3) Which object needs to be available for the drilling feature to work?

- Measures
-  • Hierarchies
- Filters



Module Summary

In this module, you have,

- Understood different Power BI terminologies, and
- Got familiar with the Power BI interface





End of Module2

