Power BI Overview

- Why Power BI?
- How to install it?
- Power BI Introduction
- Understanding the Interface

Why Power BI?

- Connectivity of more than **50** input data sources
- Can easily handle high data volume and frequency
- Working with multiple tables by simple relationship
- Offers attractive design options
- Easily Analyze Data
- Automatic data refresh (real time analytics)
- Simple report/dashboard sharing

Business intelligence (BI) software is a set of business analytics solutions used by companies to **retrieve, analyze, and transform data into useful business insights**, usually within easy-to-read visualization like charts, graphs, and dashboards

Why Power BI?

Segment	(All)	
Row Labels	Sum of Sales	Sum of Profit
Jan	676788.927	73440.45944
Feb	554649.8913	72932.27822
Mar	760517.976	91873.57966
Apr	695978.4108	73822.41864
May	915492.8309	106970.0379
Jun	1262080.917	144604.7684
Jul	752306.3022	76525.69502
Aug	1294314.958	154593.4394
Sep	1431753.403	169705.8221
Oct	1185227.69	158903.8959
Nov	1546728.156	175983.1895
Dec	1566662.447	168101.7071
Grand Total	**12642501.91**	**1467457.291**

Segment	(All)	
Row Labels	Sum of Sales	Sum of Profit
Furniture	4110451.898	285082.7302
Office Supplies	3787492.513	518595.8279
Technology	4744557.498	663778.7332
Grand Total	**12642501.91**	**1467457.291**

Excel Vs Power BI

	EXCEL	POWER BI
01. Tabular reports	Ideal for creating reports in tabular format.	Creating tabular reports is more limited.
02. Duplicated tables	Allows you to display duplicated tables.	Cannot display duplicated tables.
03. Reports	Simpler and less attractive reports than those of Power BI.	More beautiful, personalized, attractive, and interactive reports.
04. Crossed filters	No advanced cross-filtering between graphics.	Supports advanced cross-filtering features between charts.

Excel Vs Power BI

05. Charts and visuals	newest charting features, but cannot be connected to the data models.	and KPIs. Includes better visuals than Excel and allows data to be analyzed visually
06. Automatic update	Data is not automatically updated.	Data is automatically updated.
07. Availability	Reports are limited to a specific number of users.	Reports can be worked on by a large number of users, whether they are experts or not.
08. Analytics	Fewer data analysis options than Power BI.	More powerful analytical capabilities than Excel.
09. Data model	Ideal for building complex data models easily.	Ability to work on simple and structured data models.
10. Separate tables	It is difficult to connect separate tables.	Separate tables can be easily related to each other.

How to Install Power BI Desktop?

Get from
Microsoft Store

Get from
Official Website. Link

Power BI Pro license required to publish Power BI reports to Power BI Report Server

Power BI Introduction

Effortlessly import the data and create interactive reports to visualize your data and gain insights

Variety of built-in and custom visuals

Filter at a visual, page, or report level

Drill to details

Power BI Workflow

Create

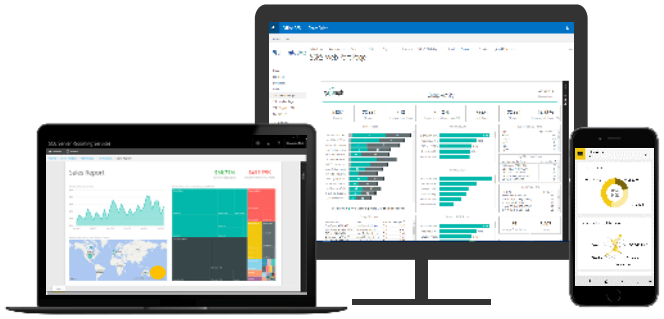
Create interactive reports
in Power BI Desktop

Publish

Publish to Power BI Report Server

Consume

View and interact in
Power BI Mobile or web browser



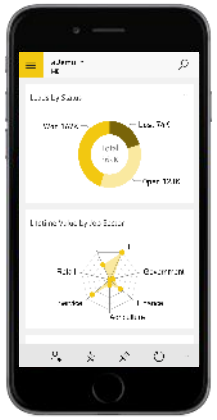
Consume Reports in Multiple Ways

Mobile apps

Windows

Android

iOS



Web portal

HTML5

Embedded In your apps

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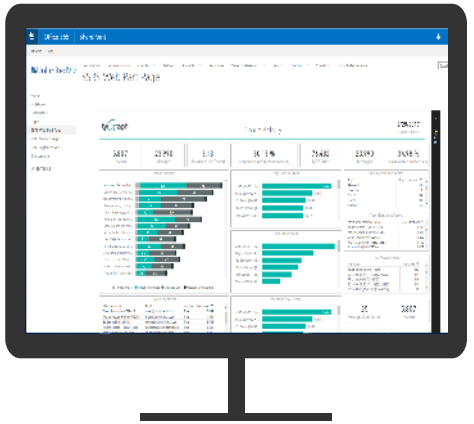
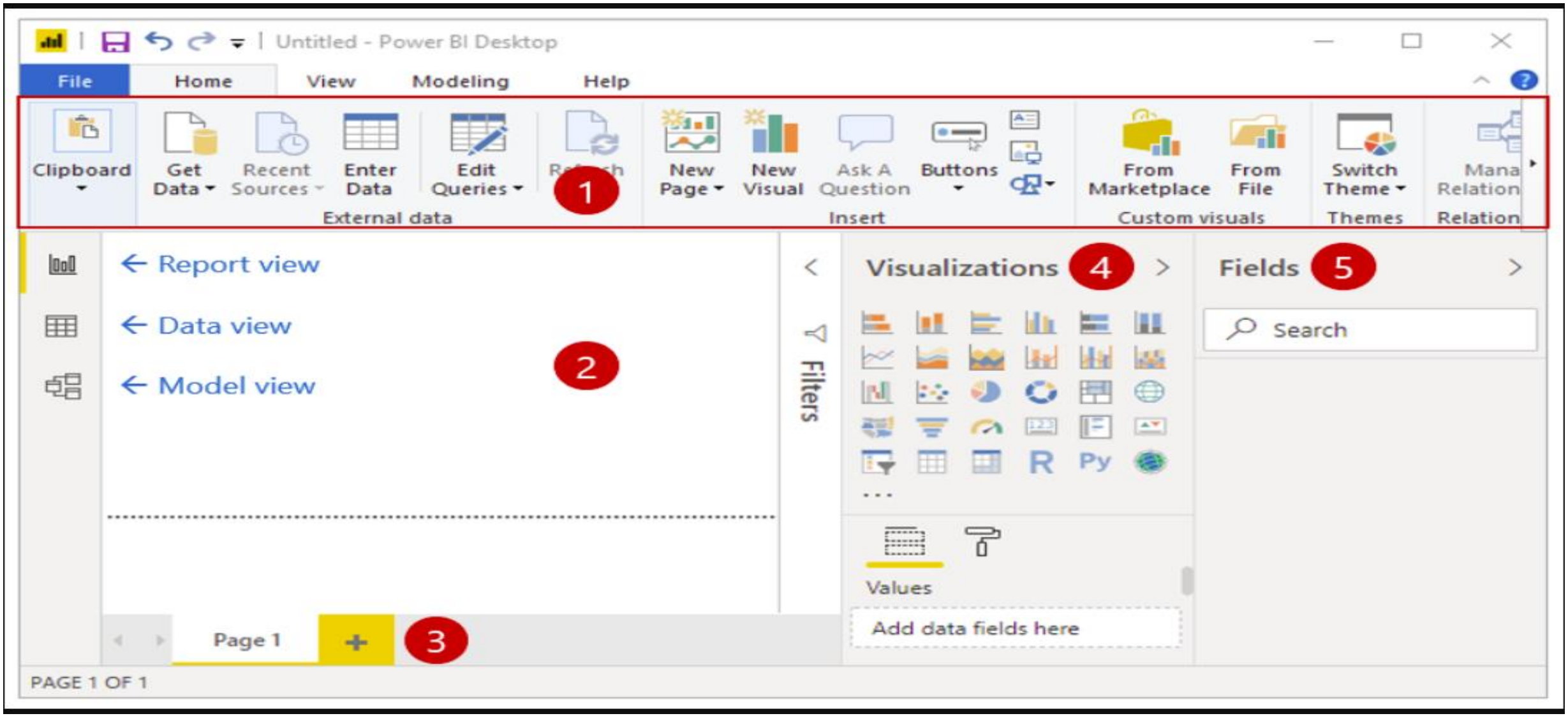


Interface

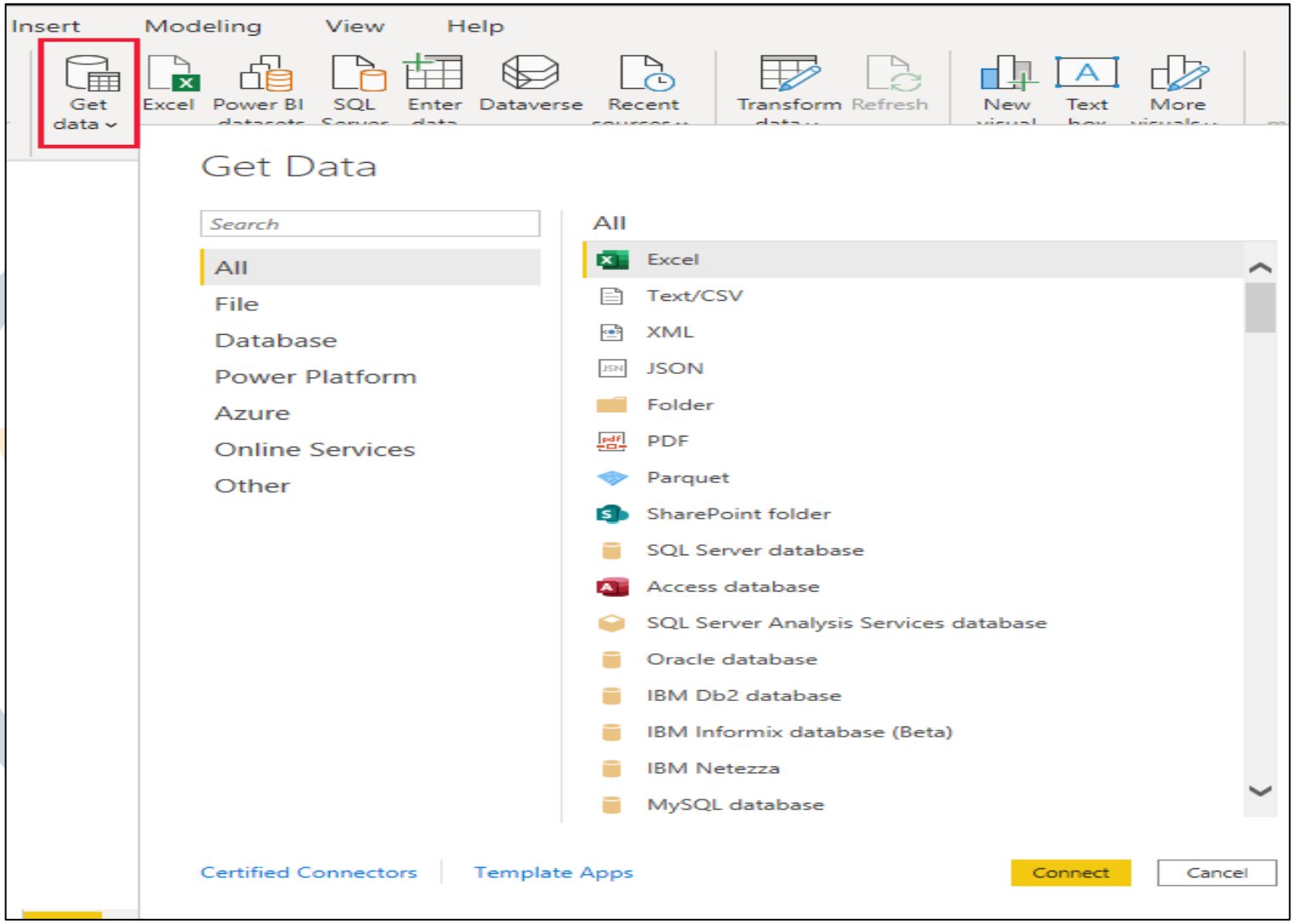

Untitled - Power BI Desktop
File
Home
View
Modeling
Help
Clipboard
Get Data
Recent Sources
Enter Data
Edit Queries
External data
1
New Page
New Visual
Ask A Question
Buttons
Insert
From Marketplace
From File
Custom visuals
Switch Theme
Themes
Relation
Report view
Data view
Model view
2
Filters
Visualizations
4
Fields
5
Search
Values
Add data fields here
Page 1
3
PAGE 1 OF 1

Creating a Dashboard (steps)

- Get/Import Data
- Study Data
- Transform Data using Power Query
- Building Relationships
- Listing Requirements
- Analysis/Calculations using DAX
- Creating Visualizations
- Publish

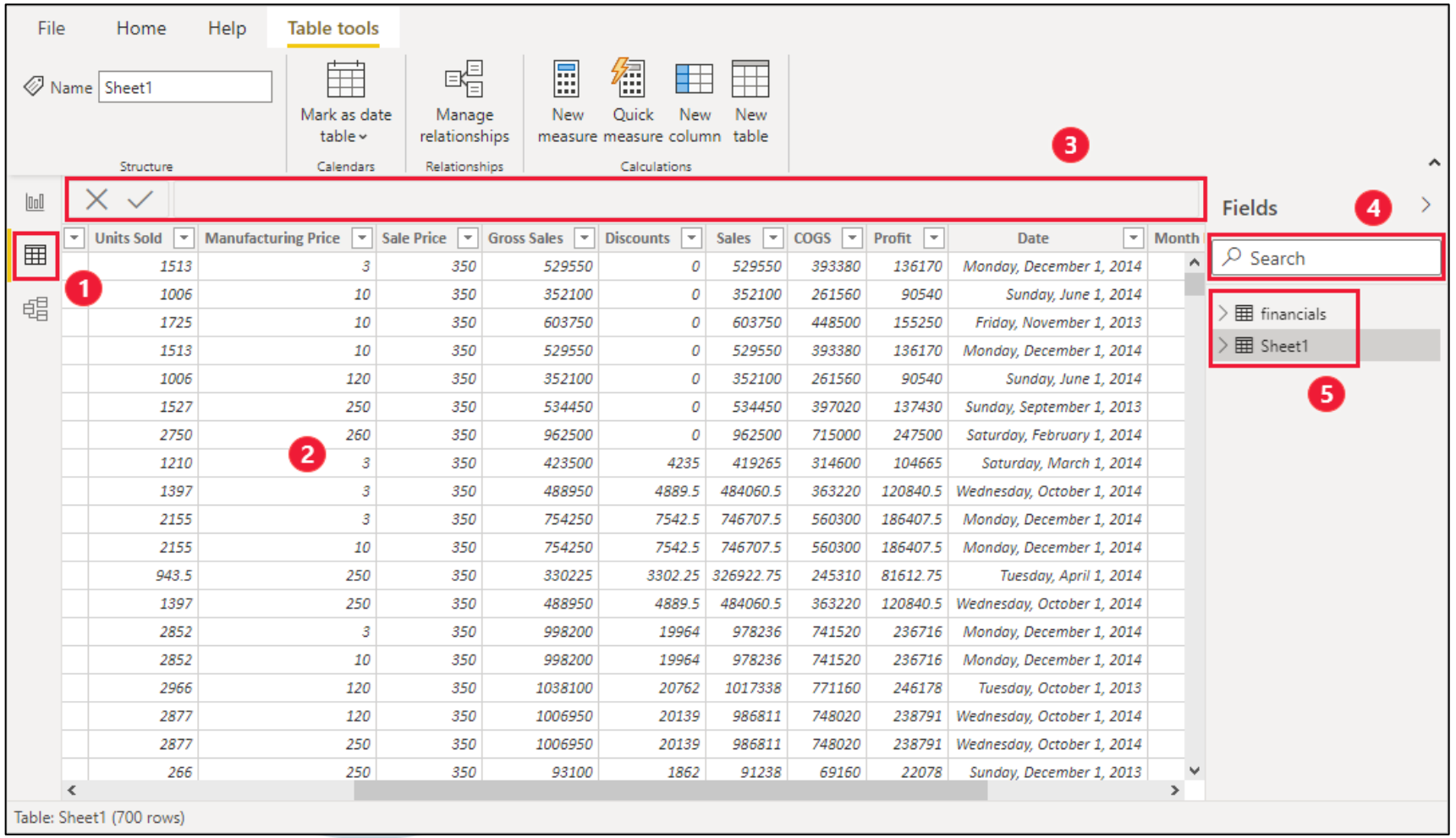
1. Data Sources (Getting/Importing Data)

- With Power BI Desktop, you can connect to data from many different sources.
- You connect to data by using the **Home** ribbon.
- To show the **Most Common** data types menu, select the **Get data** button label or the down arrow.



2. Data View (Study Data)

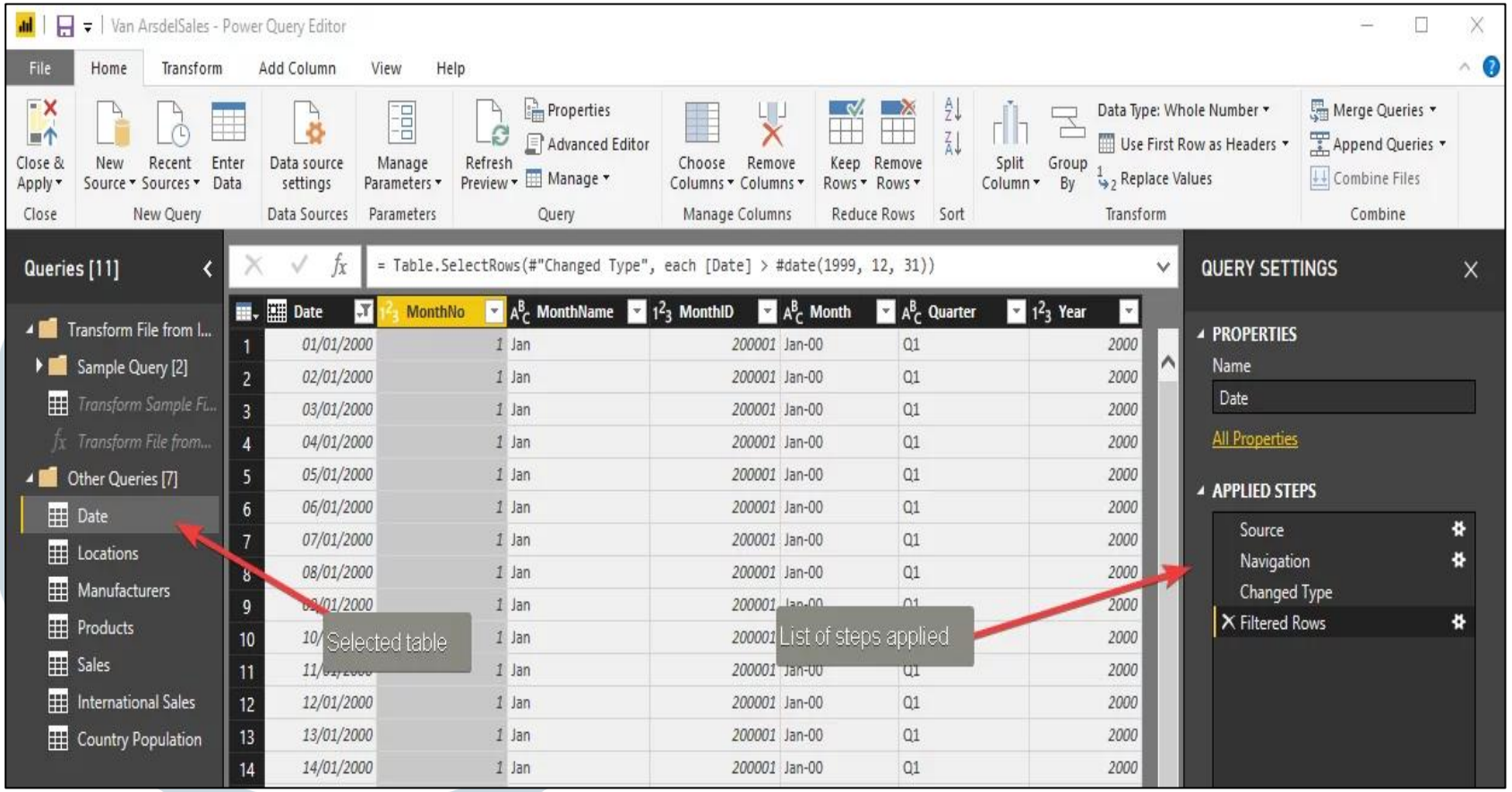
- Data view **helps you inspect, explore, and understand data in your Power BI Desktop model**.
- It's different from how you view tables, columns, and data in Power Query Editor.
- With Data view, you're looking at your data after it has been loaded into the model.



3. Transform Data using Power Query

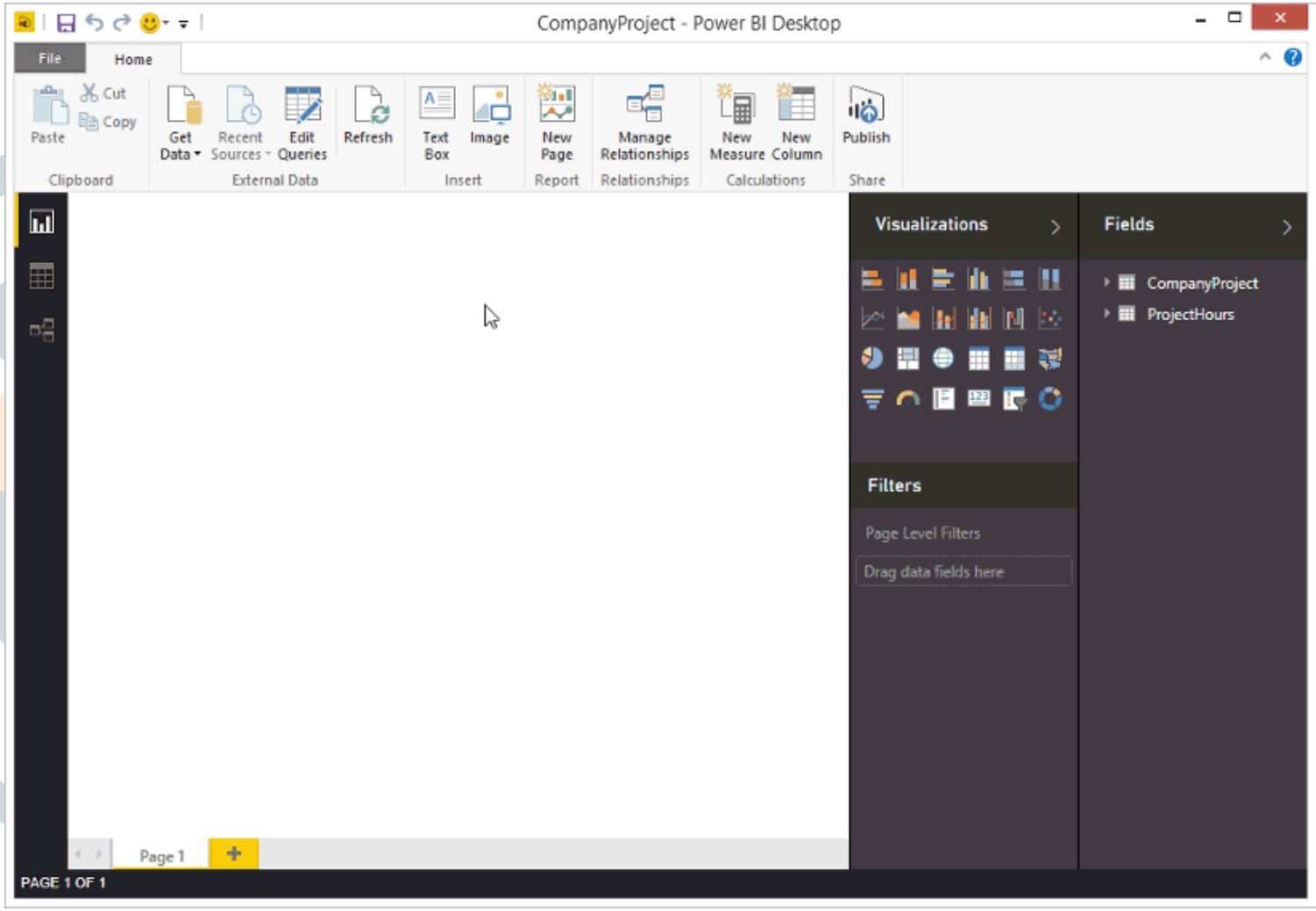
Power BI Transform Data

- Changing Table Name
- Change Header Row
- Replace Null Value
- Remove Unnecessary Rows
- Rename Column Headings
- Separating Columns
- Append Queries
- Merge Columns
- Change Data Type
- Conditional Column



4. Create a Relationship with AutoDetect (1/2)

- If your query has two or more tables when the data is loaded.
- If there are any potential relationships, they are created automatically.
- You can still use the **Manage relationships** dialog box to manually create or edit relationships.

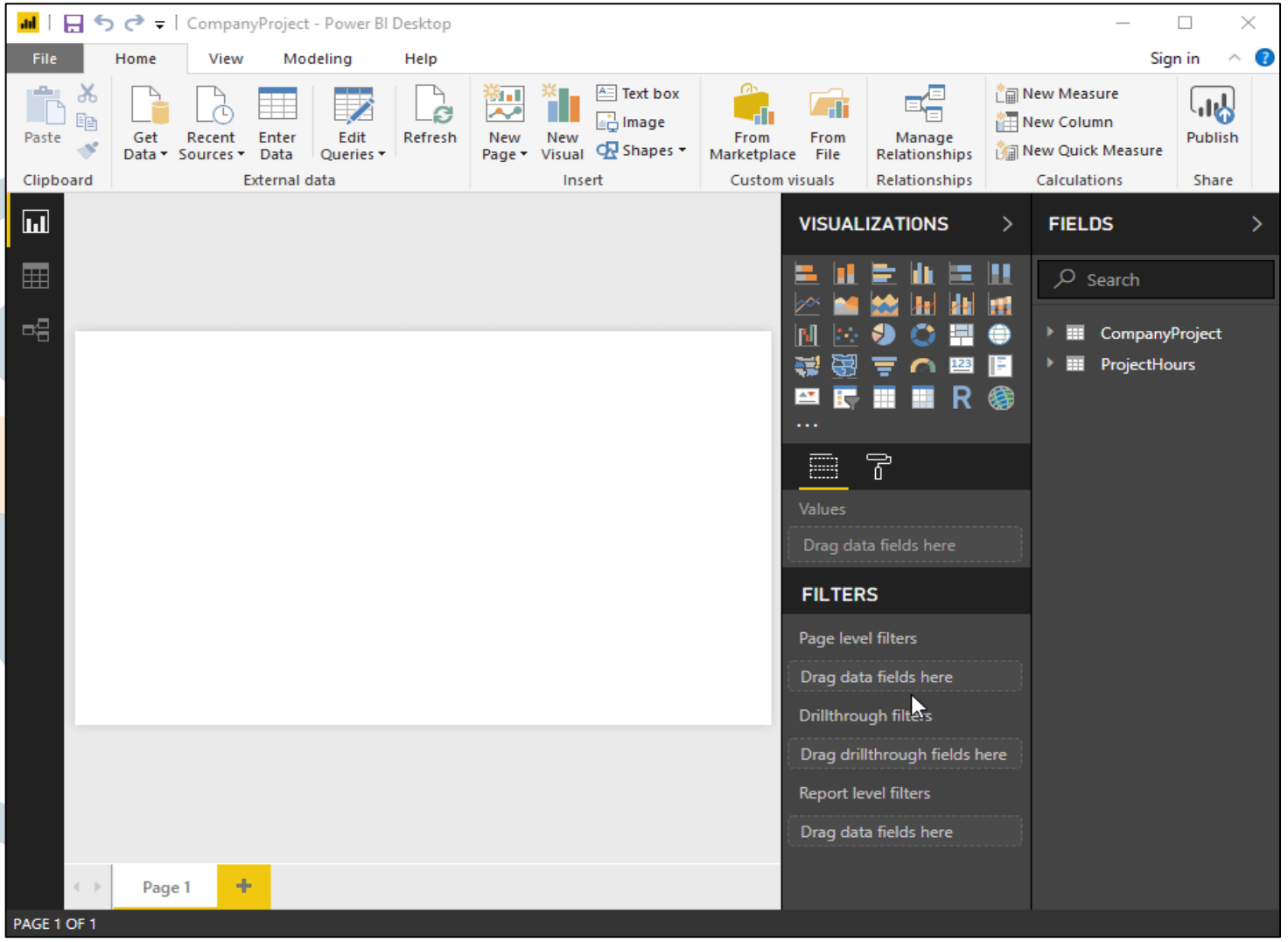


4. Create a Relationship Manually (2/2)

- On the **Modeling** tab, select **Manage relationships** > **New**.
- In the **Create relationship** dialog box, in the first table drop-down list, select a table. Select the column you want to use in the relationship.
- In the second table drop-down list, select the other table you want in the relationship. Select the other column you want to use, and then select **OK**.

Edit a relationship

- On the **Modeling** tab, select **Manage relationships**.
- In the **Manage relationships** dialog box, select the relationship, then select **Edit**.



5. Listing the Requirements

Requirements can be given by:

- Clients
- Business Heads / Manager
- Various departments
- Yourself (As Business Analyst)

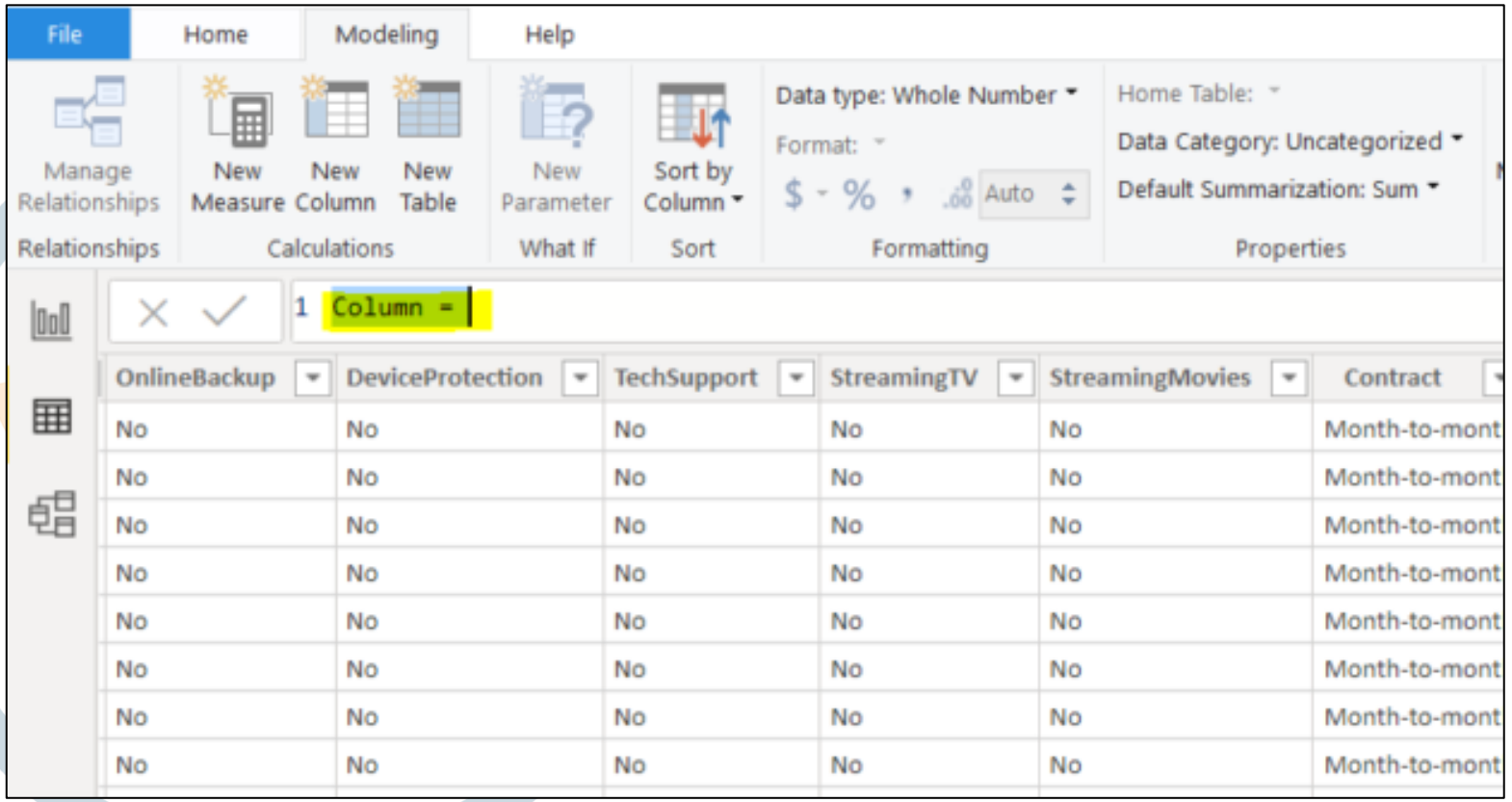
Requirements explored by Business Analyst:

- Exploring Dataset and Key Business Parameters
- Listing Categories (dimensions) and Measures Separately
- Following Top-Down Approach
- Generating insights according to business heads needs

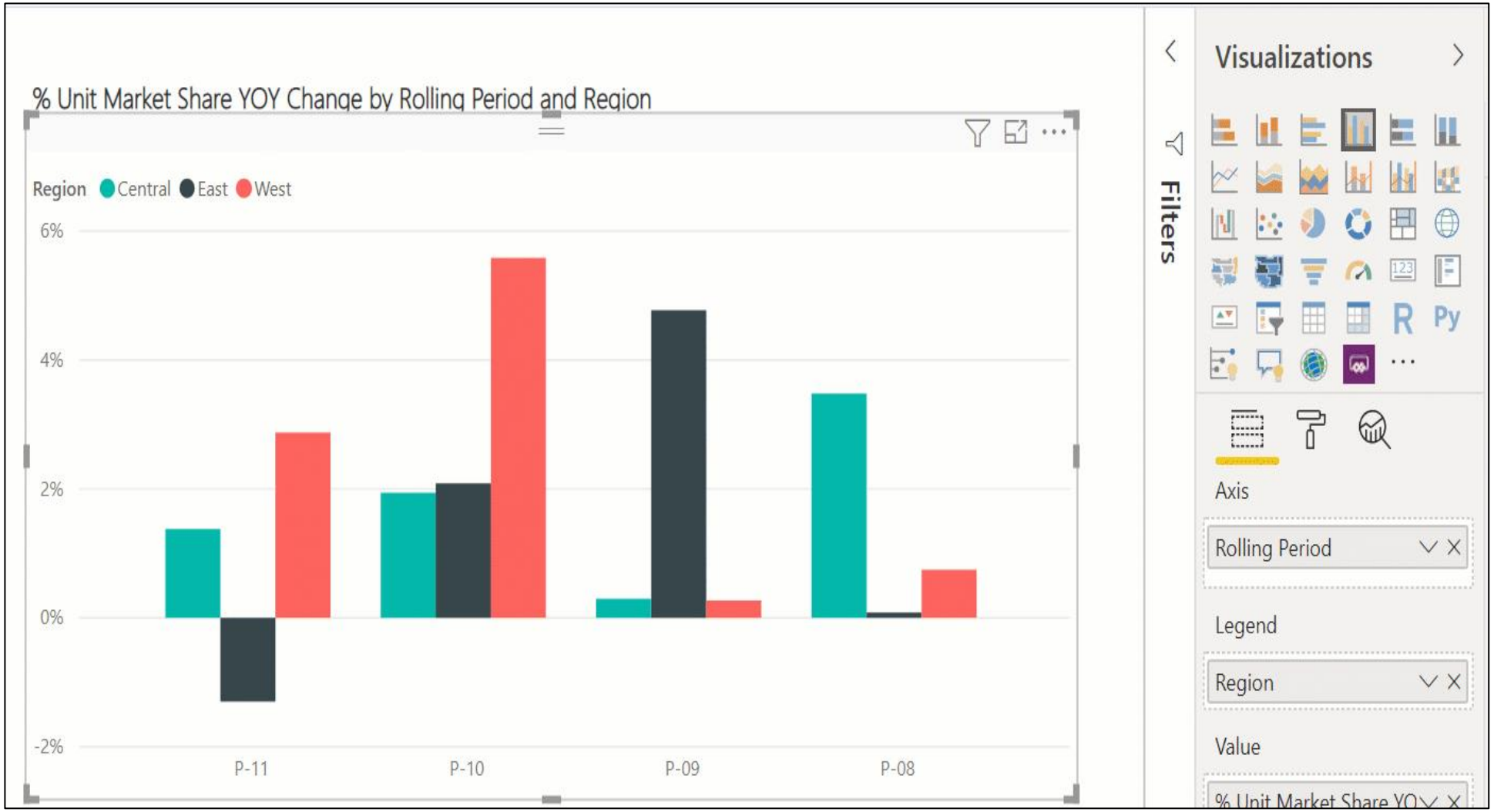
6. Analysis using DAX Measures and Calculated Columns

You will learn how to:

- Use Power BI to perform simple calculations
- Use Power BI to perform data analytical functions
- Group data together, and how to bin data for analysis
- Perform time series analysis

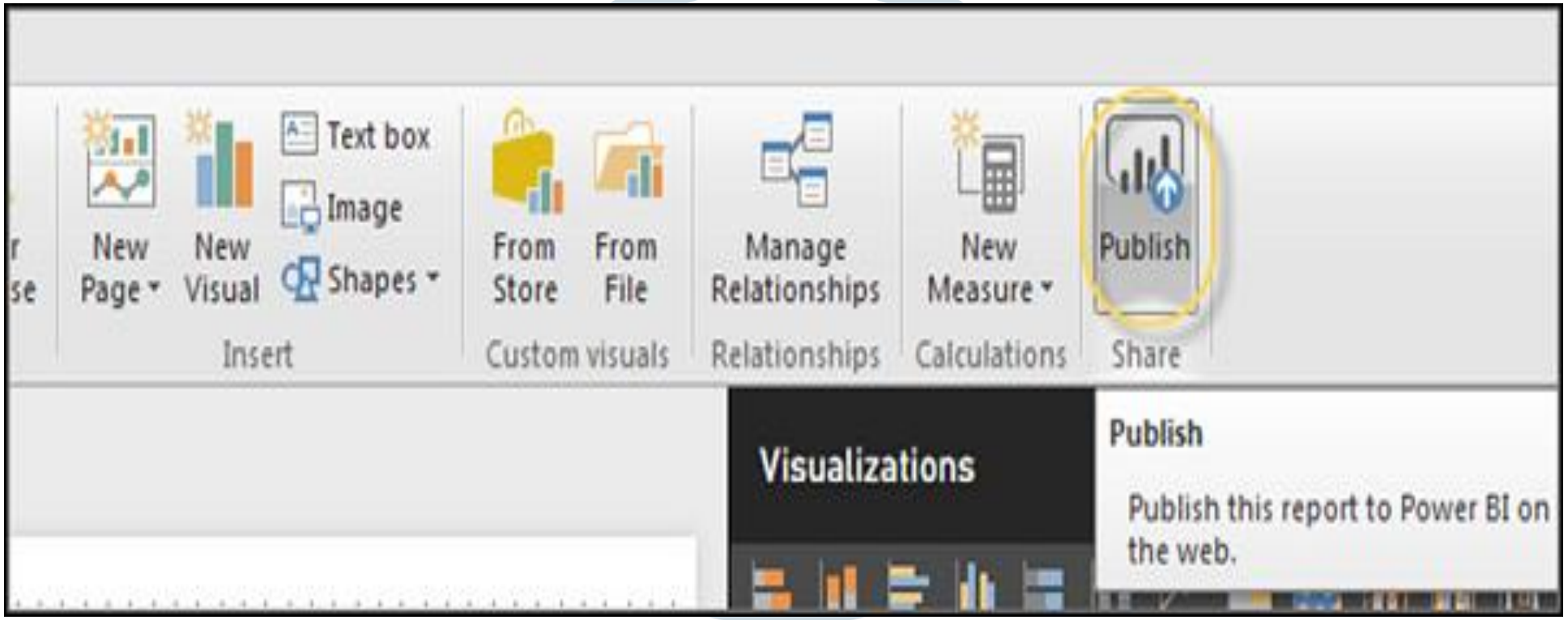


7. Visualisation



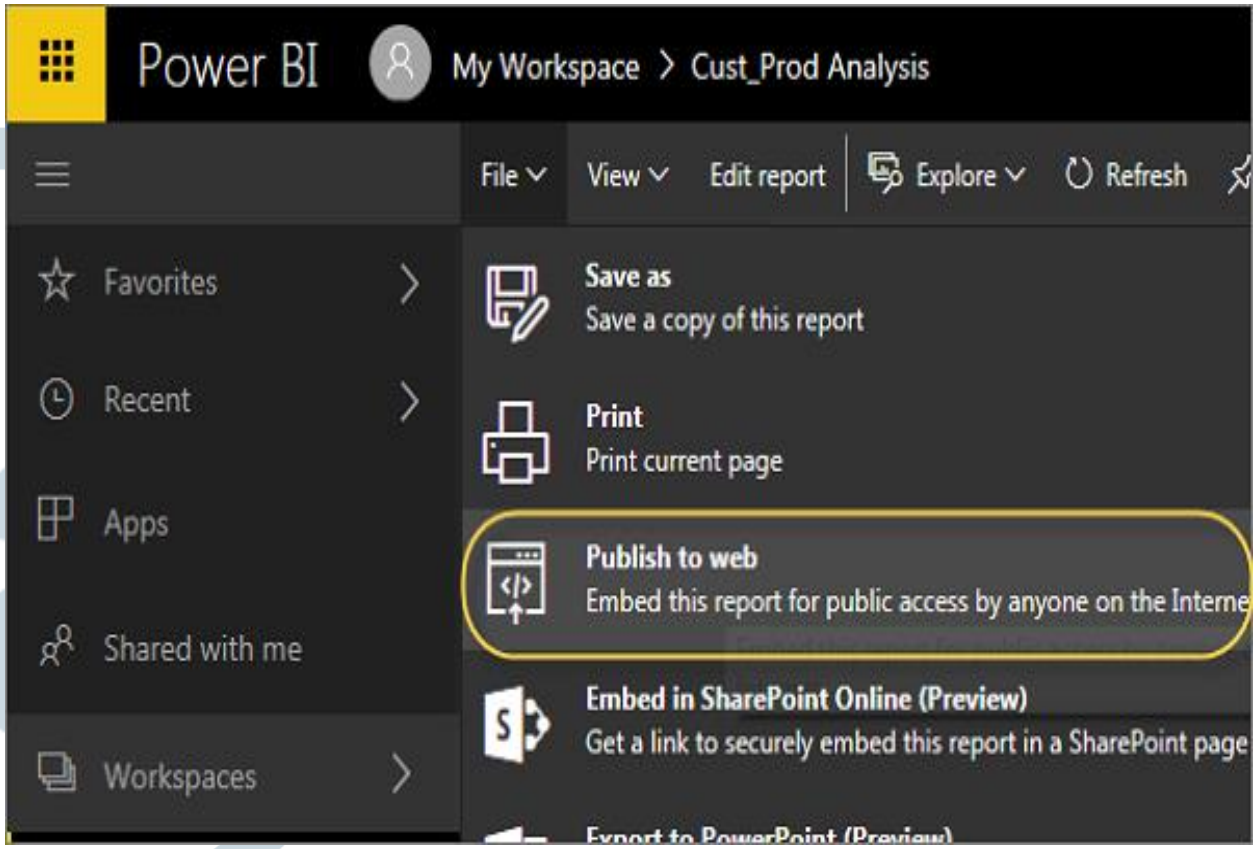
8. Publishing (1/2)

Once the report is created, navigate to the Publish button on the Home tab in Power BI desktop.



8. Publishing Report to Web (2/2)

- To publish a report to the web, you have to navigate to Power BI service → My Workspace.
- Once you open the report that you want to publish, navigate to the File tab → Publish to Web.
- Once you select this option, it opens a new dialog that creates an embed code for this report to include in the website or email.



Finalized Report (Dashboard)

Executive dashboard

How we are performing?

Select a date: 2012 | 2013 | 2014 | 2015 | 2016 | 2017

$273 mln	460 tys.	$592	$48 mln	0.01%
Total Sales	Total Units	Revenue per Unit	Gross Profit	Sales growth YoY

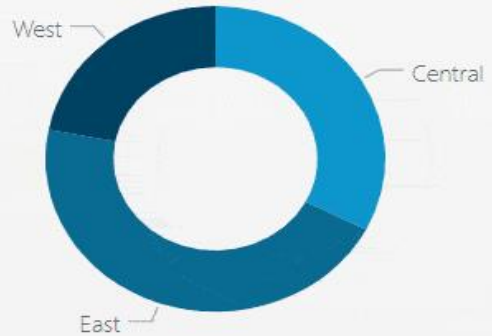
What is our Sales Trend?

How close we are to planned sales by Category?

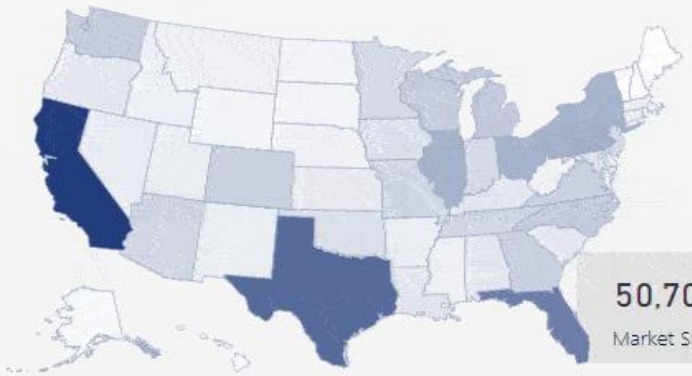
5,26%
Above the Plan

How much units we are selling by Segment?

How much we are selling by Region?



How much we are selling by State?



50,70%
Market Share