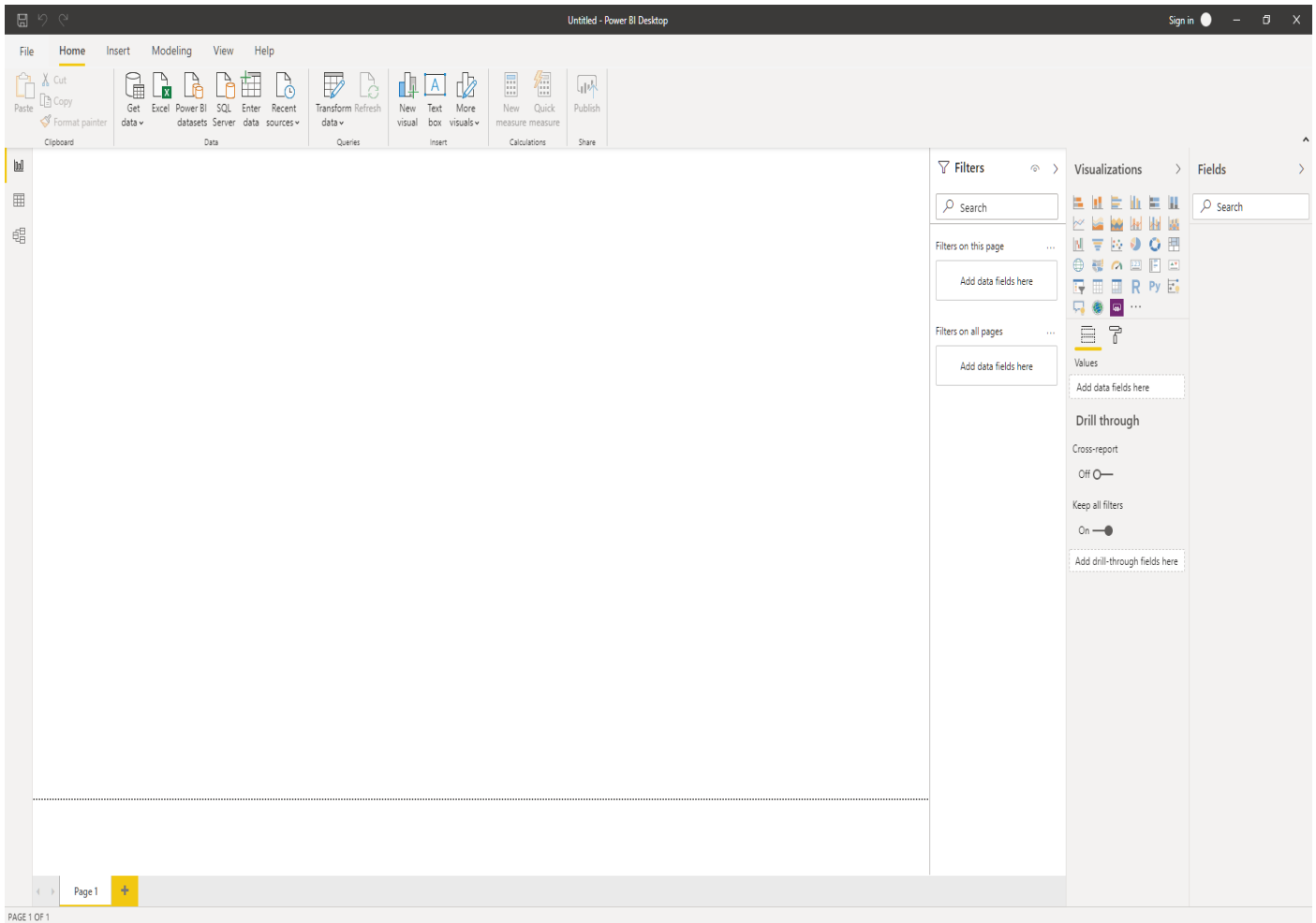


Power BI Assignment 1

Screenshot of Report View after Installation:



What is Power BI?

A business analytics service to

- Get a self-serve analytics platform that scales across the organization.
- Find and share meaningful insights using smart tools.
- Help keep your data secure and compliant—even when exported.
- Reduce the added cost and complexity of multiple solutions.

Power BI Desktop: Cost: Free for single user use.

Power BI Desktop is a free application we install on our local computer that lets us connect to, transform, and visualize our data. With Power BI Desktop, we can connect to multiple different sources of data, and combine them (often called *modelling*) into a data model. This data model lets us build visuals, and collections of visuals that we can share as reports, with other people inside our organization. Most users who work on business intelligence projects use Power BI Desktop to create reports, and then use the *Power BI service* to share their reports with others.

The most common **uses** for Power BI Desktop are as follows:

- Connect to data
- Transform and clean that data, to create a data model
- Create visuals, such as charts or graphs, that provide visual representations of the data
- Create reports that are collections of visuals, on one or more report pages
- Share reports with others by using the Power BI service

Disadvantages:

- Cannot share created reports with non-Power BI Pro users
- No App Workspaces
- No API embedding
- No email subscriptions
- No peer-to-peer-sharing
- No support to analyse in Excel within Power BI Desktop

Power BI Pro: Cost: \$9.99/₹660/user/month

In addition to all the features of Power BI desktop, Pro includes data collaboration, data governance, building dashboards with a 360-degree real-time view and the ability to publish reports anywhere.

- Self-service and modern BI in the cloud
- Collaboration, publishing, sharing, and ad-hoc analysis
- Fully managed by Microsoft

Power BI Premium: Cost: \$4,995/₹330,190/month

In addition to all the features of Power BI Pro, Premium plan includes dedicated cloud compute and storage resource.

- Enterprise BI, big data analytics, cloud, and on-premises reporting
- Advanced administration and deployment controls
- Dedicated cloud compute and storage resources
- Allows any user to consume Power BI content

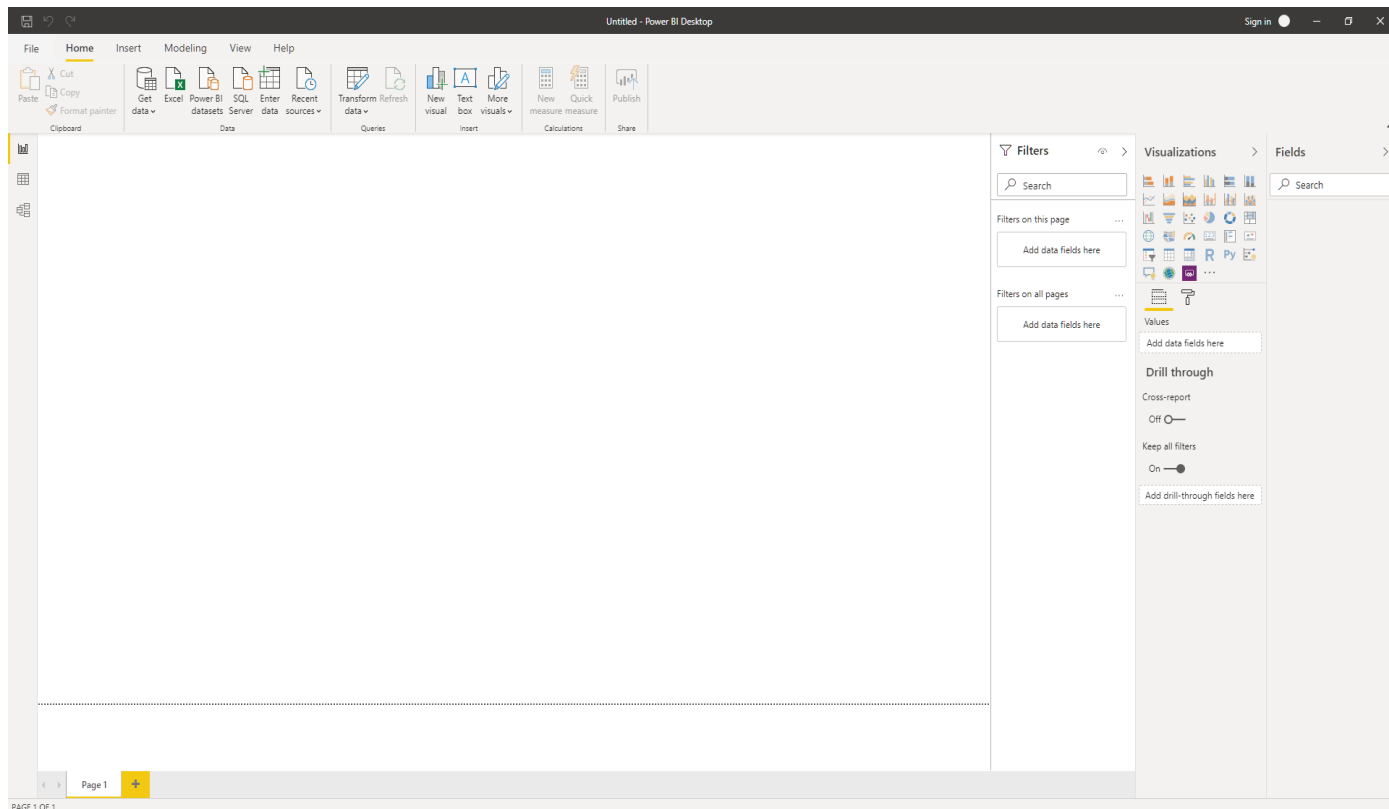
What is the difference between Power BI Pro and Power BI Premium?

With Power BI Pro, users are licensed individually and participate fully in the use of Power BI – both the creation of content and the consumption. All Pro users can connect to hundreds of data sources on-premises and in the cloud, create interactive reports and 360-degree dashboards, share that content with other Pro users, and consume content shared by others.

With Power BI Premium, you are licensing capacity for your content rather than licensing all users of that content. Content (datasets, dashboards, and reports) is stored in Premium and can then be viewed by as many users as you want, without additional per-user costs. These users can only view content, not create it. Viewing includes looking at dashboards and reports on the web, in our mobile apps, or embedded in your organization's portals or apps. The creators of content in Premium still need their own Pro licenses.

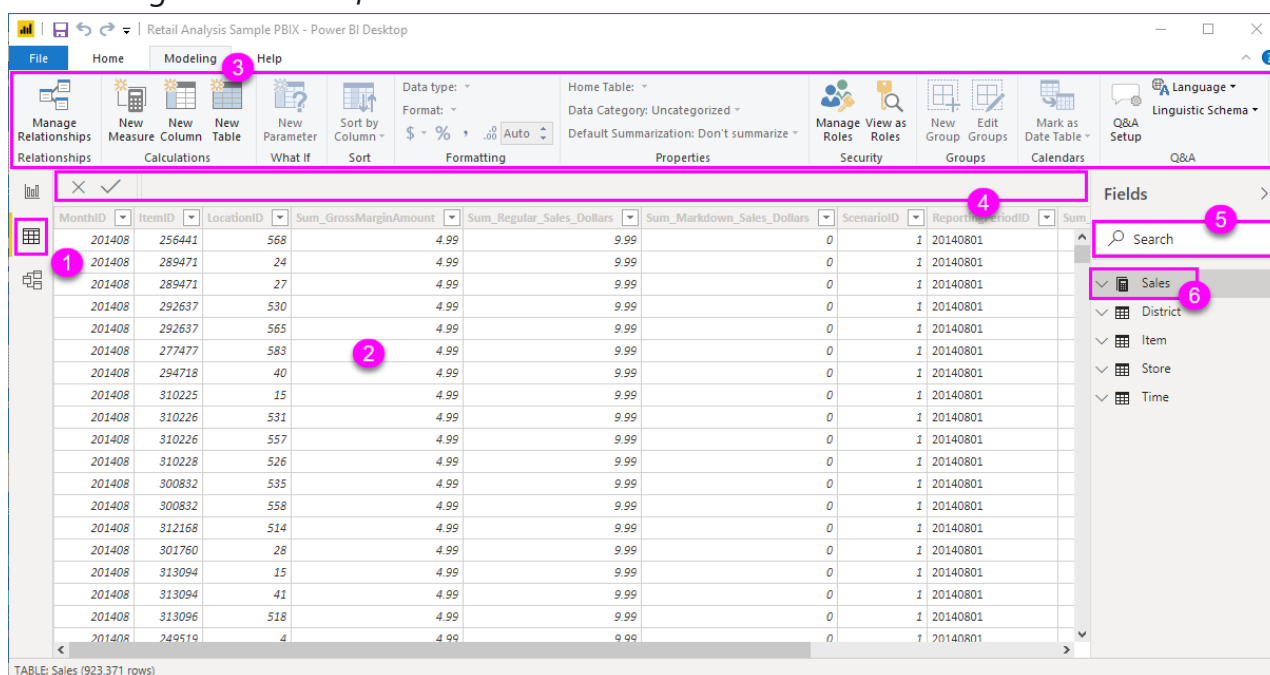
Report view:

Power BI Desktop includes a **Report view**, where we can create any number of report pages with visualizations. We can move visualizations around, copy and paste, merge, and so on. We can also work with our queries and model our data to make sure our data supports the best insights in our reports. We can then save our Power BI Desktop file wherever we like, whether it is our local drive or to the cloud.



Data View:

Data view helps us inspect, explore, and understand data in our *Power BI Desktop* model. It is different from how we view tables, columns, and data in *Power Query Editor*. With Data view, we are looking at our data *after* it has been loaded into the model.

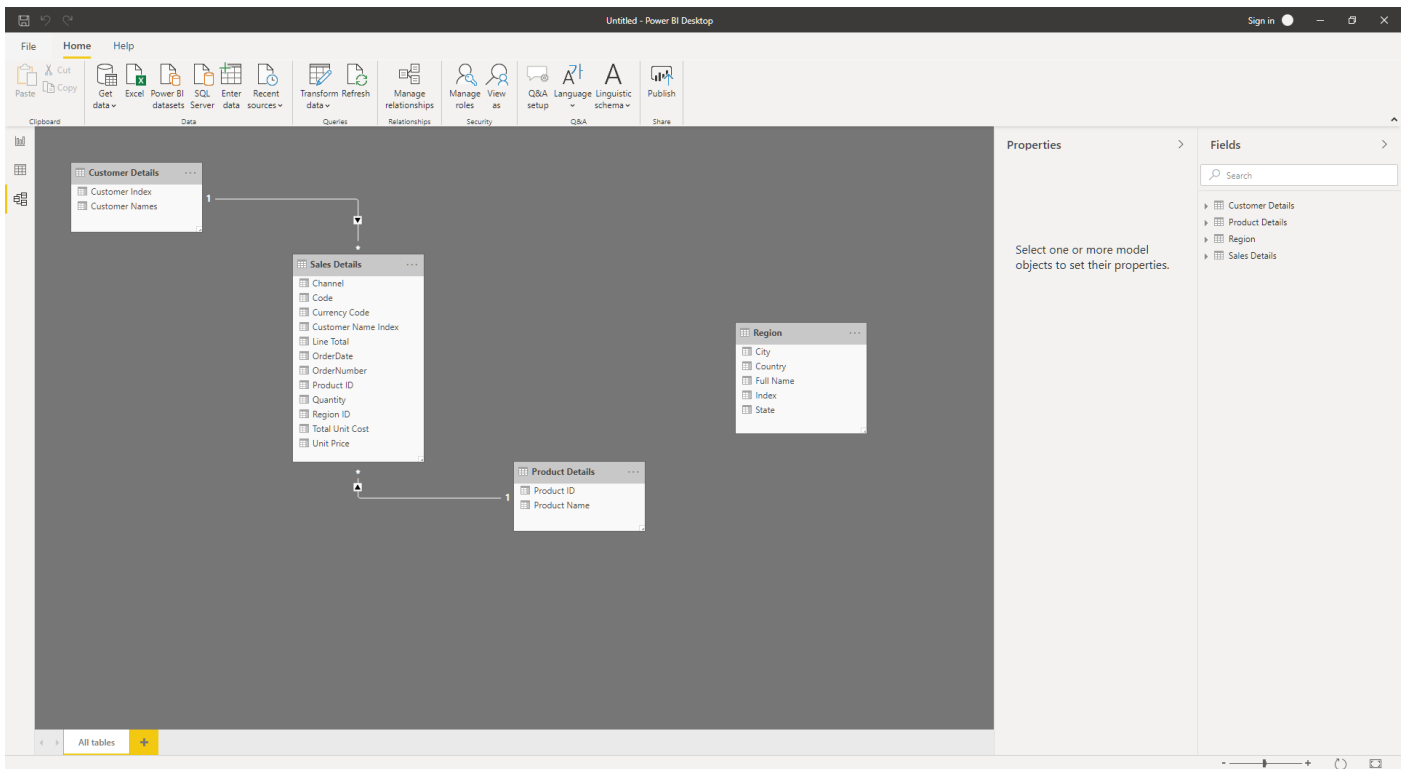


1. **Data view icon.** Select this icon to enter Data view.
2. **Data Grid.** This area shows the selected table and all columns and rows in it. Columns hidden from *Report* view are greyed out. We can right-click on a column for options.
3. **Modelling ribbon.** Here we can manage relationships, create calculations, change data type, format, data category for a column.
4. **Formula bar.** Enter Data Analysis Expression (DAX) formulas for Measures and Calculated columns.
5. **Search.** Search for a table or column in our model.
6. **Fields list.** Select a table or column to view in the data grid.

OrderNumber	OrderDate	Customer Name Index	Channel	Currency Code	Code	Region ID	Product ID	Quantity	Unit Price	Line Total	Total Unit Cost
11004	01 January 2019	8	Industries	Euro	INNOISRT	49	26	6	979.2	5899.2	684.74
11011	02 January 2019	111	Industries	Euro	INNOISRT	33	26	12	3872.6	46471.2	2517.19
11088	08 January 2019	93	Industries	Euro	INNOISRT	48	26	6	1185.5	6633	851.235
11102	09 January 2019	15	Industries	Euro	INNOISRT	39	26	9	1072	9648	600.32
11117	11 January 2019	100	Industries	Euro	INNOISRT	45	26	7	2345	16415	1219.4
11126	12 January 2019	88	Industries	Euro	INNOISRT	43	26	10	201	2010	160.8
11192	16 January 2019	13	Industries	Euro	INNOISRT	51	26	8	1862.6	14900.8	949.926
11206	18 January 2019	91	Industries	Euro	INNOISRT	46	26	7	797	5159	626.45
11209	18 January 2019	59	Industries	Euro	INNOISRT	2	26	8	2512.5	20100	1391.625
11241	21 January 2019	4	Industries	Euro	INNOISRT	60	26	10	857.6	8576	497.408
11243	21 January 2019	91	Industries	Euro	INNOISRT	16	26	9	2278	20502	1161.78
11254	22 January 2019	36	Industries	Euro	INNOISRT	12	26	11	201	2211	118.59
11280	25 January 2019	31	Industries	Euro	INNOISRT	62	26	9	2398.3	21044.7	1286.065
11287	26 January 2019	134	Industries	Euro	INNOISRT	68	26	10	6311.4	63114	4986.006
11299	26 January 2019	91	Industries	Euro	INNOISRT	3	26	9	2278	20502	1161.78
11352	30 January 2019	23	Industries	Euro	INNOISRT	45	26	12	187.6	2251.2	155.708
11376	01 February 2019	45	Industries	Euro	INNOISRT	66	26	12	1239.5	14874	805.675
11394	03 February 2019	89	Industries	Euro	INNOISRT	57	26	9	2512.5	22612.5	1658.25
11400	03 February 2019	133	Industries	Euro	INNOISRT	63	26	8	2345	18760	1735.3
11454	08 February 2019	92	Industries	Euro	INNOISRT	46	26	5	1065.3	5326.5	671.139
11468	09 February 2019	161	Industries	Euro	INNOISRT	28	26	12	1031.8	12381.6	433.356
11497	11 February 2019	39	Industries	Euro	INNOISRT	57	26	9	956.1	8622.9	699.413
11510	13 February 2019	74	Industries	Euro	INNOISRT	11	26	6	6532.5	39195	5487.3
11511	20 February 2019	43	Industries	Euro	INNOISRT	62	26	12	3946.3	47355.6	1617.983
11517	20 February 2019	113	Industries	Euro	INNOISRT	24	26	12	3906.1	46873.2	2968.636
11635	22 February 2019	54	Industries	Euro	INNOISRT	65	26	7	964.8	6753.6	694.656
11644	22 February 2019	50	Industries	Euro	INNOISRT	32	26	9	3095.4	27858.6	1392.93
11645	22 February 2019	92	Industries	Euro	INNOISRT	7	26	11	167.5	1842.5	72.025
11647	22 February 2019	15	Industries	Euro	INNOISRT	32	26	9	1072	9648	600.32
11657	23 February 2019	99	Industries	Euro	INNOISRT	23	26	7	268	1876	182.34
11663	24 February 2019	156	Industries	Euro	INNOISRT	25	26	11	1862.6	20488.6	745.04
11669	25 February 2019	59	Industries	Euro	INNOISRT	63	26	11	1212.7	13339.7	715.483
11695	27 February 2019	115	Industries	Euro	INNOISRT	57	26	7	5721.8	40052.6	4176.914
11697	27 February 2019	98	Industries	Euro	INNOISRT	38	26	11	3959.7	43556.7	1861.059
11702	27 February 2019	40	Industries	Euro	INNOISRT	39	26	5	5212.6	26063	3283.938
11708	28 February 2019	57	Industries	Euro	INNOISRT	40	26	5	1775.5	8877.5	1384.89
11816	08 March 2019	16	Industries	Euro	INNOISRT	20	26	6	3048.5	18291	2438.8
11845	10 March 2019	45	Industries	Euro	INNOISRT	25	26	12	1239.5	14874	805.675

Model View:

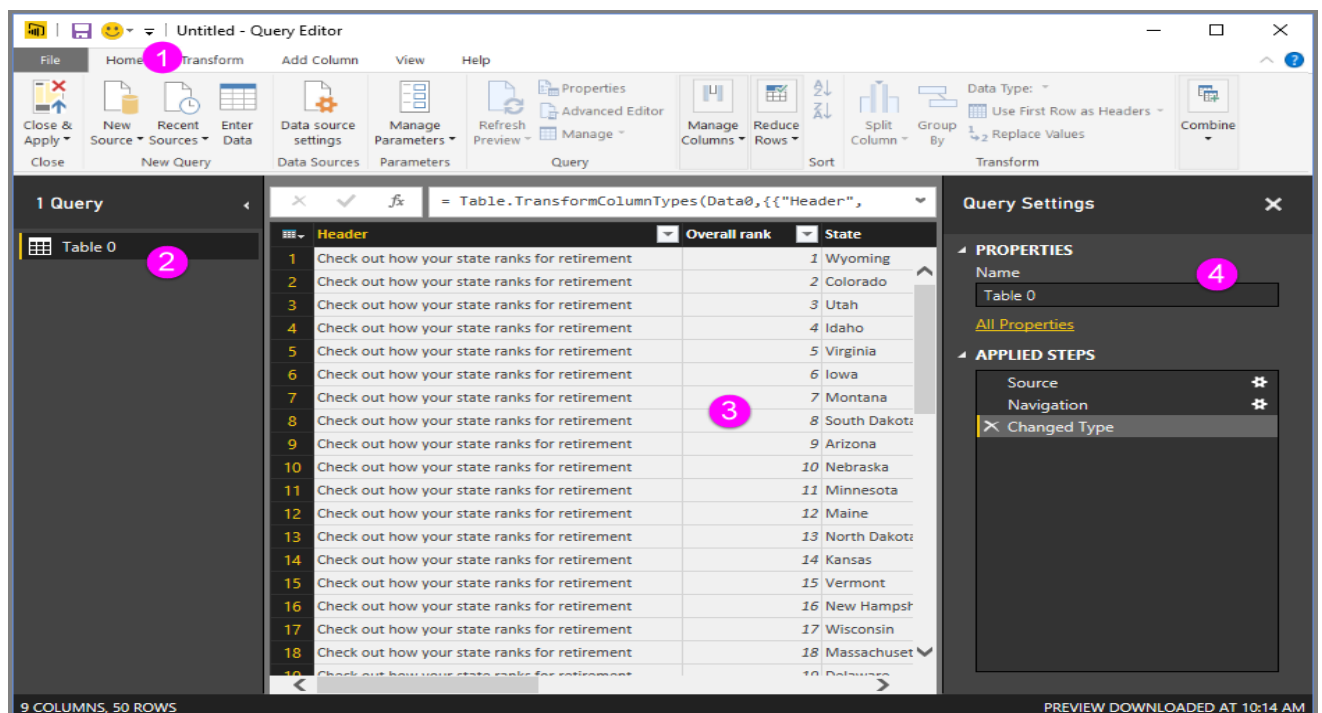
Model view shows all the tables, columns, and relationships in our model. This view can be especially helpful when our model has complex relationships between many tables. Selecting the **Model** icon near the side of the window shows view of the existing model.



Power Query Editor:

The Query Editor only appears when we load, edit, or create a new query. With Query Editor, we can navigate, define, and perform data transform operations over a data source.

1. In the ribbon, many buttons are now active to interact with the data in the query.
2. In the left pane, queries are listed and available for selection, viewing, and shaping.
3. In the centre pane, data from the selected query is displayed and available for shaping.
4. The **Query Settings** pane appears, listing the query's properties and applied steps.



Power Query Editor interface showing a table with 4 columns: Index, State, City, and Country. The table contains 40 rows of data, including locations like Oregon, California, Wyoming, Nevada, and various European cities like London, Berlin, Madrid, Rome, Kiev, Paris, Bucharest, Budapest, Hamburg, Minsk, Warszawa, Belgrade, Vienna, Kharkov, Barcelona, Milano, München, Praha, Sofia, Dnepropetrovsk, Donetsk, Napoli, Birmingham, Odessa, Köln, Torino, Zagreb, Zaporozhye, Łódź, Marseille, Riga, Livvi, Athisna, Saloniika, Stockholm, Kraków, Valencia, Amsterdam, Leeds, and Kyiv.

Query Settings panel on the right shows the query name "Region" and the applied steps: Source, Navigation, Promoted Headers, and Changed Type.

Advance Editor:

The **Advanced Editor** lets us see the code that Power Query Editor is creating with each step. It also lets us create our own shaping code. To launch the advanced editor, select **View** from the ribbon, then select **Advanced Editor**. A window appears, showing the existing query code.

Advanced Editor

Region

Display Options

```

let
    Source = Excel.Workbook(File.Contents("C:\Users\sthan\Documents\Ineuron Classes\PowerBI Tableau\week 2\Data Set_04_05_20\NorthSea ImportE
    Region_Sheet = Source{[Item="Region",Kind="Sheet"]}[Data],
    #"Promoted Headers" = Table.PromoteHeaders(Region_Sheet, [PromoteAllScalars=true]),
    #"Changed Type" = Table.TransformColumnTypes(#"Promoted Headers",{{"Index", Int64.Type}, {"State", type text}, {"City", type text}, {"Cou

in
    #"Changed Type"

```

✓ No syntax errors have been detected.

Done

Cancel