Power BI Assignment 5
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1. Explain DAX.

Data Analysis Expressions (DAX) is a formula expression language used in Analysis Services, Power BI, and Power Pivot in Excel. DAX formulas include functions, operators, and values to perform advanced calculations and queries on data in related tables and columns in tabular data models

2. Explain datasets, reports, and dashboards and how they relate to each other?

A dataset is **a collection of data that you import or connect to**. Power BI lets you connect to and import all sorts of datasets and bring all of it together in one place. Datasets can also source data from dataflows. Datasets are associated with workspaces and a single dataset can be part of many workspaces.

Dashboards vs reports

| Item	Dashboards	Reports
Pages	Dashboards are created on only one page	Can be created in one or more pages
Data sources	Dashboards are created from multiple datasets or **reports**.	Reports are created from a single dataset
Visualization	Dashboards always concentrate on building insights into the data by using graphs, attractive visuals, charts, etc.	Reports are not concentrated on the visualization part of the data rather it looks to create summary pages.
Available in Power BI Desktop	Dashboards can not be created in Power BI Desktop	Reports can be built and viewed in Power BI Desktop.
Filters and Slicers	You cant add Slicers and Filters as Dashboards are limited to a single page.	In reports, we can use many different ways to filter, highlight, and slice.
User Interactivity	**Dashboards** allow a user to pin visuals from different **reports** and datasets onto a single canvas, making it simple to group what's essential to the user.	**Reports** are more focused on being able to visualize and apply transformations to a single dataset.

3. How reports can be created in power BI, explain two ways with Navigation of each.

<u>Create a quick report</u>

In the navigation pane in the Power BI service, you can select the Create button that opens a page where you can select your data source. It's also accessible from the New report button on Home.


Currently, we only support creating a report based on an existing dataset, or pasting or manually entering data directly in a table. Over time you'll see other sources, such as uploading an Excel file.
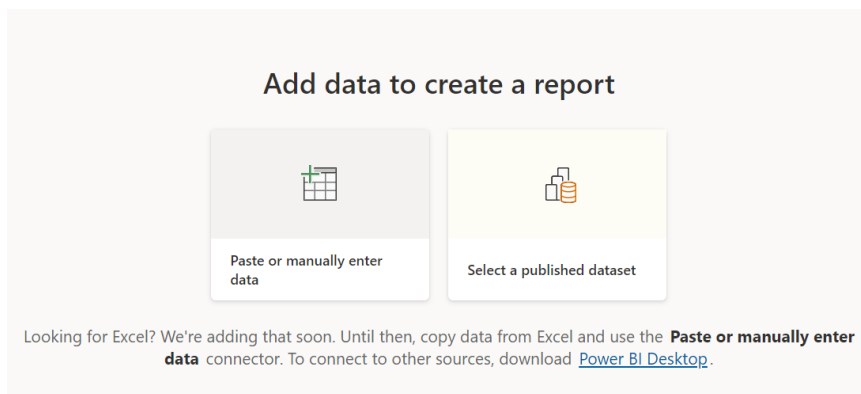

When you choose to paste or manually enter data, you get a grid that you can start to type into. You can also paste data by using Ctrl + V or the context menu.
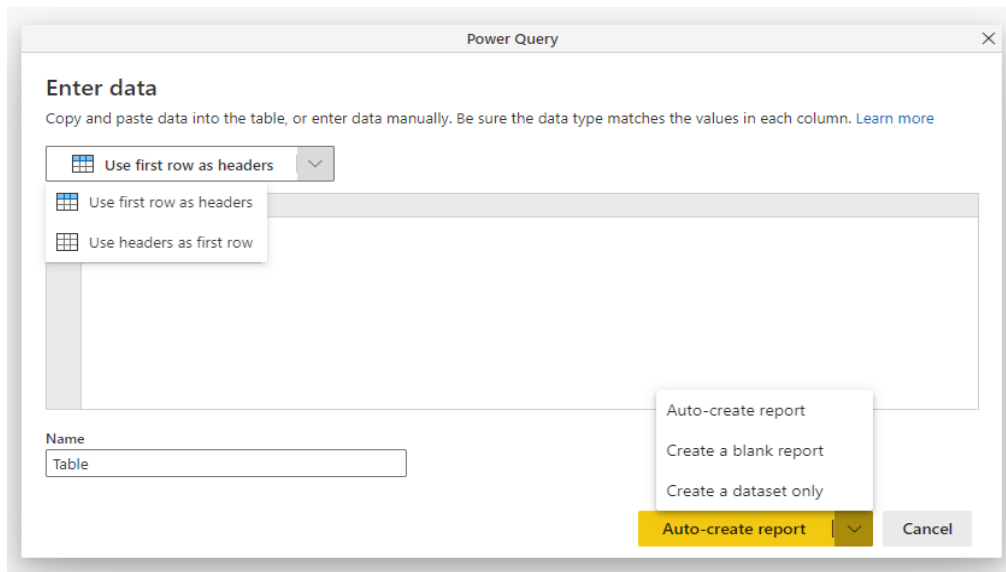
You can use the context menu to add and remove columns. If your pasted data includes a header row, select Use first row as headers to automatically promote the first row to the header row. Power BI automatically detects the data types, but you have the option to set them manually. Select the Data type button next to the column name.
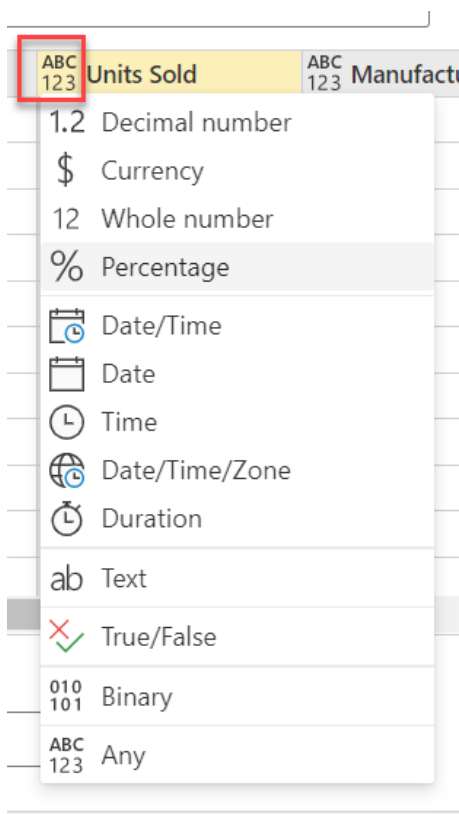

As you go through the creation process, Power BI creates a new dataset for you, and autogenerates a summarized view of your data. These autogenerated visuals propel you from raw data to insights faster than ever.
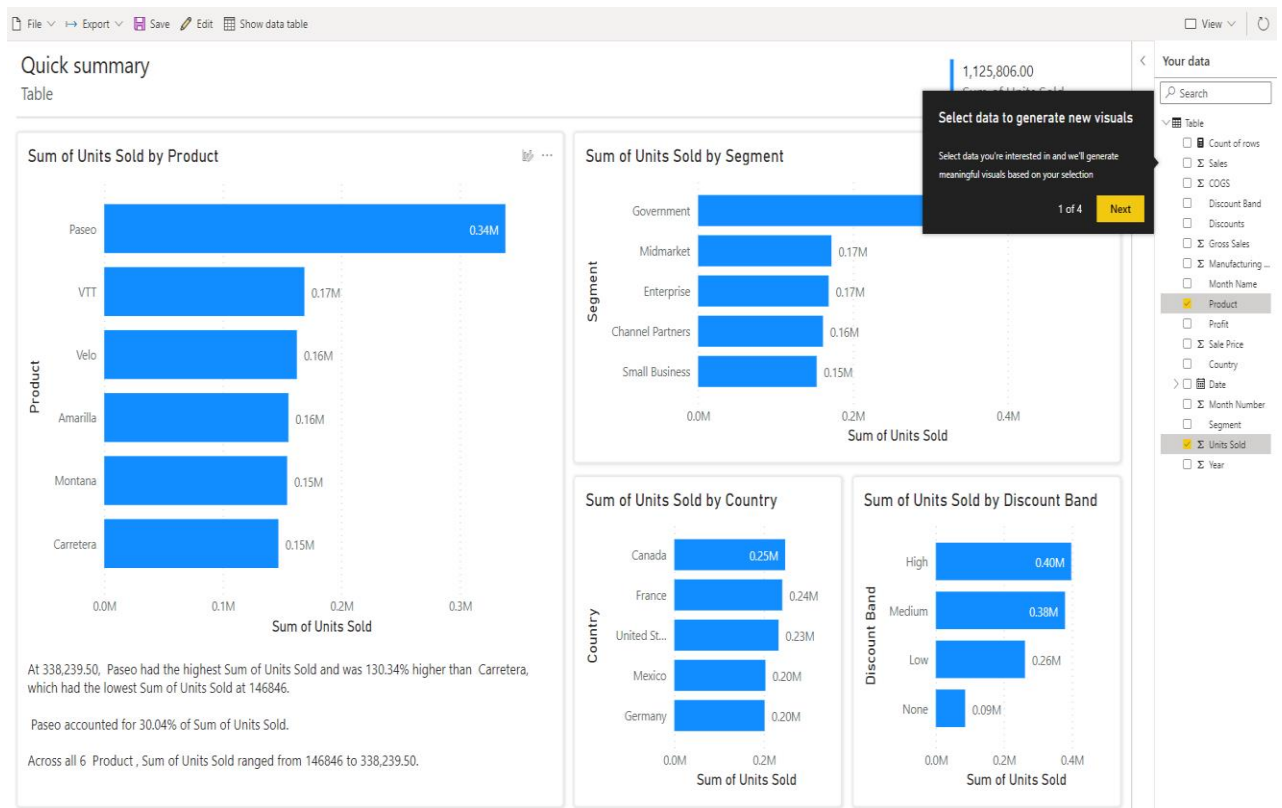
Changing the data you see in the report is easy, too. Use the Your data pane to add or remove fields from the report. Select and deselect fields to update what you want to measure and analyze. Power BI automatically plots meaningful charts based on your field selection

Switch to full edit experience

If you want to switch to a full edit experience, select the Edit button in the menu bar. Be aware though, that once you save the report in the full edit experience, you can't go back to the quick edit view.
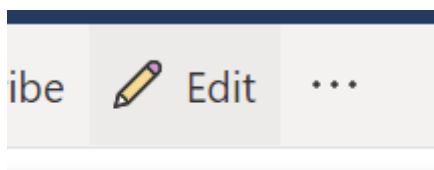
This experience should make it easier to create reports on your data and unlock the power of report building to a whole new set of users. Try the new Create experience today.

Considerations and limitations

Get data limitations

- If you use the Paste or manually enter data option, there's currently no way to update the data later. If you want to add, modify, or delete data later, you need to go through the Create workflow again and get a new report.
- If you have a CSV or Excel file, you need to use the paste option to add your data. A file upload option is coming later.
- When copying data into the Enter data window, the size of data you paste can't exceed 512 KB.
- The table name can't be longer than 80 characters, and column names can't be longer than 512 characters.
- Table and column names can't contain double quotes ("), periods (.), or leading or trailing white spaces.

4.   How to connect to data in Power BI? How to use the content pack to connect to google analytics? Mention the steps.
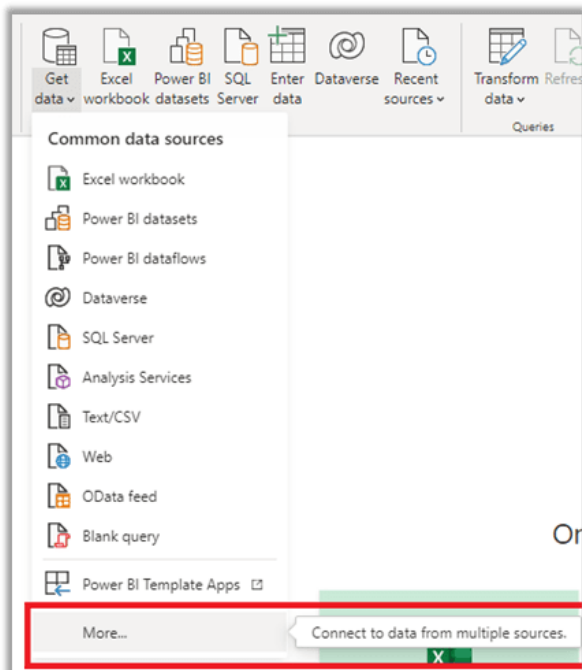
To connect to data, from the Home ribbon select Get data. The Get Data window appears. You can choose from the many different data sources to which Power BI Desktop can connect.
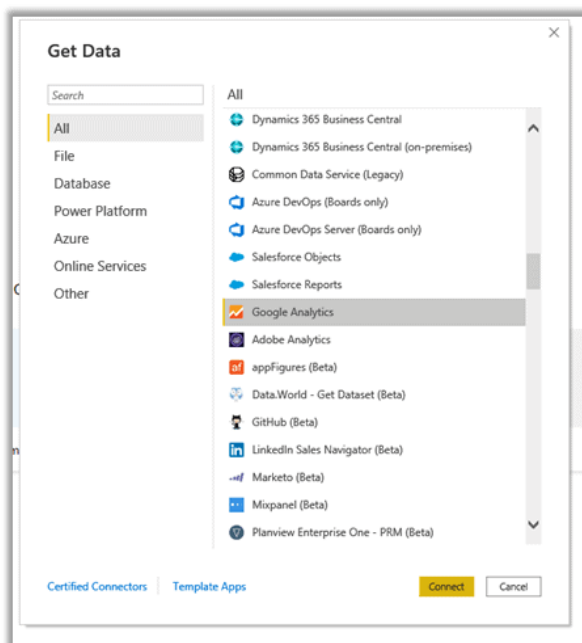
Step 1 – Click on "Get Data"

Once you have Power BI open, in the ribbon near the top left of the screen you should see a button called Get Data.
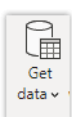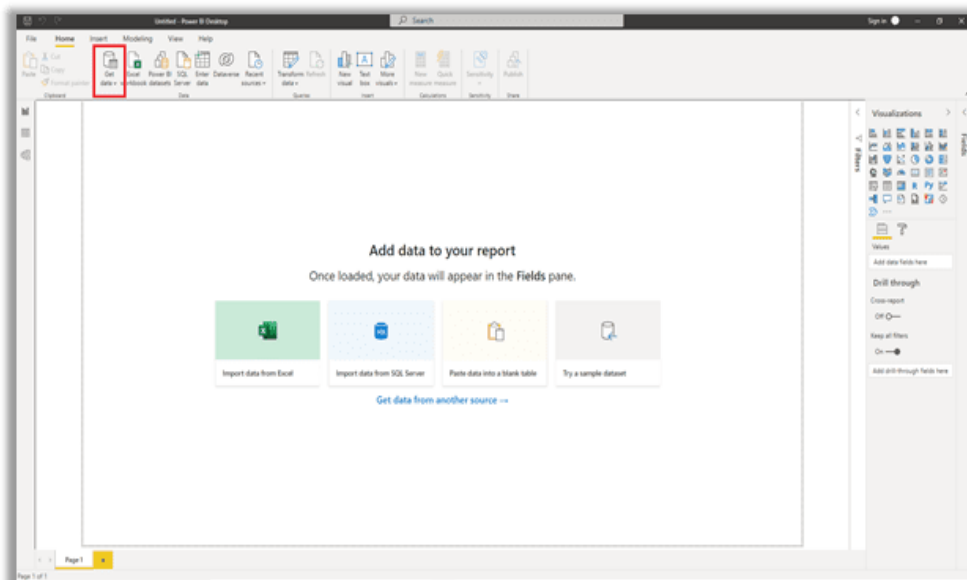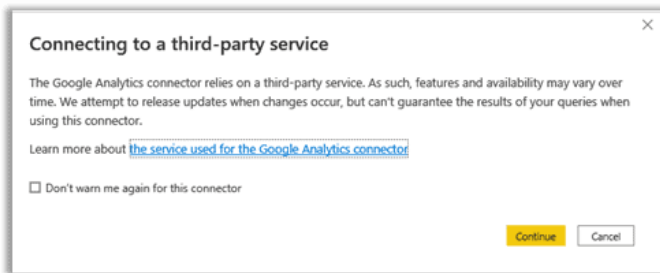
Click on Get Data and select the More option.

In the Get Data dialogue box, scroll down to find or search for the Google Analytics connector.
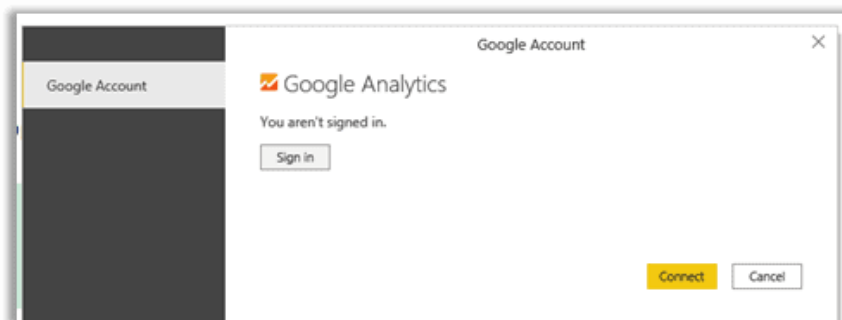

Power BI will then notify you that the Google Analytics connector relies on a 3rd party service. You can just select Continue to move past this dialogue box.
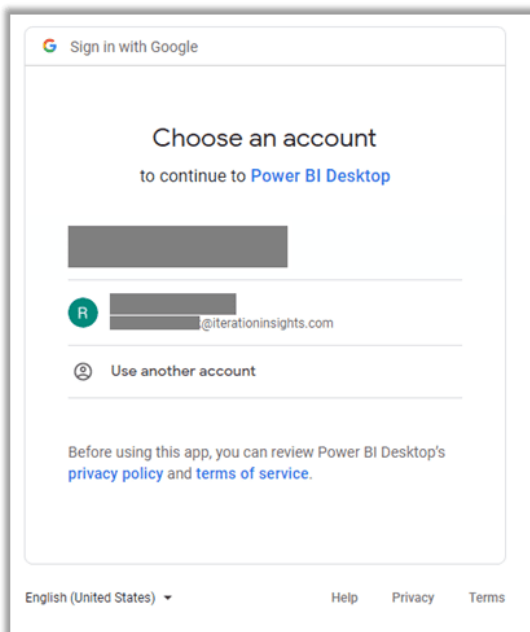
Step 2 – Sign in to Google Analytics and allow Power BI access
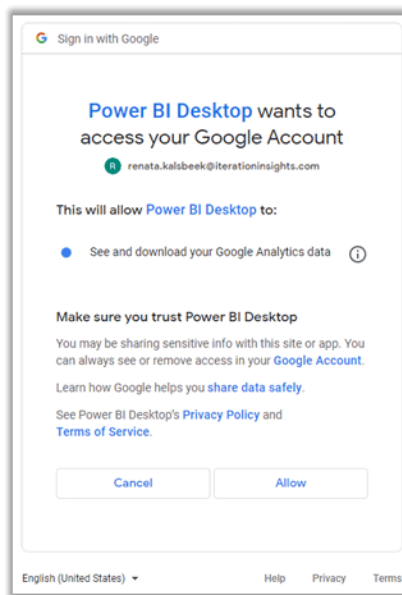
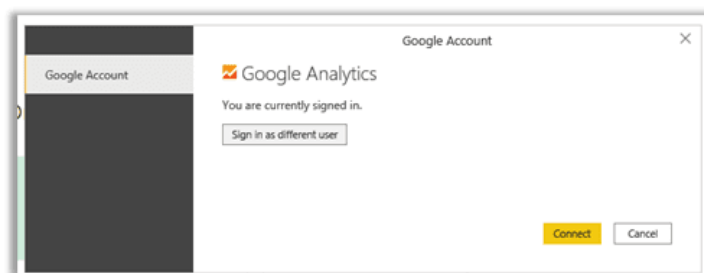Power BI will now prompt you to sign in to your Google Analytics account.

Select the account that is attached to the Google Analytics account that has the data you wish to access.

You then must allow Power BI to access your Google Account.

Once you have allowed access, return to your Power BI file and you will see that you are now signed in. Click Connect to continue.

Step 3 – Load Google Analytics Data into Power BI

Connecting will open the Navigator box. This is where you will select which data you would like to be loaded into Power BI. The options are set up the same way that the Google Analytics account hierarchy is set up.The top-level is the Account, the second level is the Property, and the bottom level is the View. Select which account, property, and view that contains the data you are looking for.
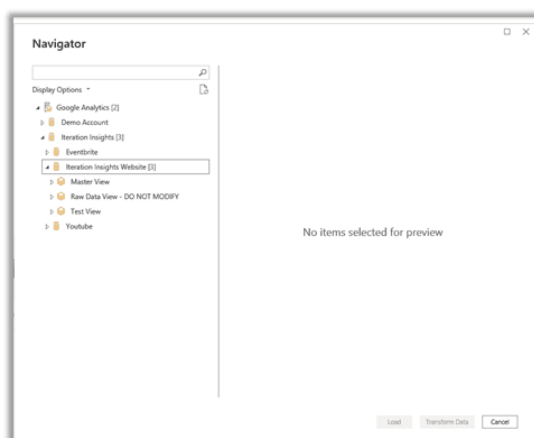
In order to load in the data, you must ensure that you have the proper permissions in Google Analytics. The last step is to select the tables and load the data.
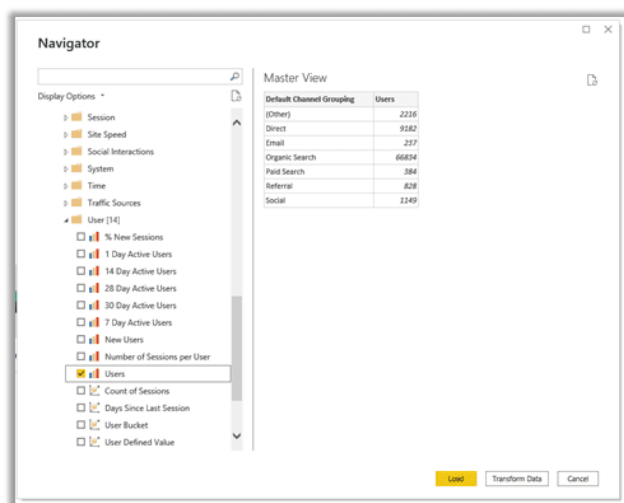
Here you have two choices. If you select Load, the data will come into Power BI and the dialogue box will close. If you choose Transform Data, this will load the data into Power BI and open the Power Query Editor so that you may transform and clean the data as necessary.

Conclusion

There you have it! You have now successfully connected your Google Analytics data to Power BI. From here you can now create your calculations and measure to answer your website analytics questions.

Next, you can build a beautiful dashboard with visualizations that present the information you want at your fingertips.

5. How to import Local files in Power BI? Mention the Steps.

Manually import data to Power BI

1. In Power BI, click Get Data in the lower left screen.
2. Under Import or Connect to Data > Files, click Get.
3. Click Local File.
4. Choose which file to upload and click Open.
5. Click Upload under Upload your Excel file to Power BI.
6. The message "Your file has been uploaded" should appear.

6. In Power BI visualization, what are Reading View and Editing view?

Reading view

Reading view is to consume reports created by others. Reading view is your way to explore and interact with reports created by colleagues.

Even in Reading view, the content isn't static. You can dig in, looking for trends, insights, and other business intelligence. Slice and dice the content, and even ask it questions using your own words. Or, sit back and let your data discover interesting insights for you; send you alerts when data changes, and email reports to you on a schedule you set. All your data, any time, in the cloud or on-premises, from any device.

The Power BI service has two different modes for interacting with reports: Reading view for report *business users* and Editing view for report owners and creators. You need a Power BI Pro or Premium Per User (PPU) license to share reports and to edit reports created by others. Without a Pro or Premium Per User (PPU) license, you can still create reports in your My Workspace, but you can't share them.

In report Editing view, you have flexibility in both exploring and designing a report. All the Reading view functionality is available, plus much more.

Functionality only available in Editing view

To help you navigate the Table of Contents, Editing view is required for the following actions:

- Creating, editing, renaming, sharing, and deleting reports.
- Adding, renaming, rearranging, and deleting report pages.
- Formatting reports.
- Adding visualizations, text boxes, shapes, and buttons to a report.
- Adding visual-level, page-level, and report-level filters and setting visual interactions.
- Creating refresh schedules.
- Using Q&A functionality to create visuals in reports.
- Showing data used to create the visualization.
- Setting up drillthrough.
- Duplicating a report page.
- Using report settings to control your readers' interactions with reports.