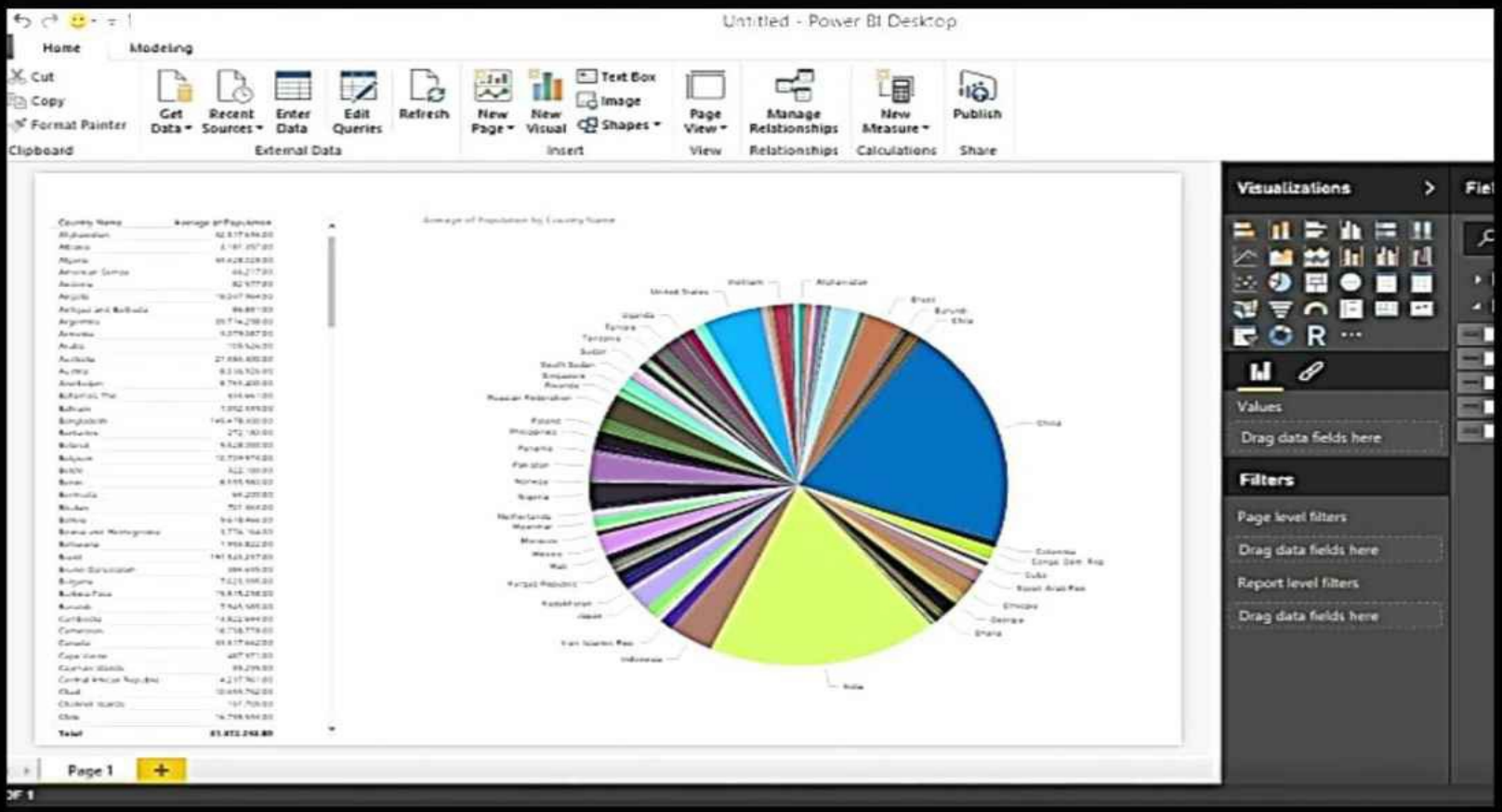
INTRODUCTION TO MICROSOFT POWER BI



BRING YOUR DATA TO LIFE!

M.O. CUDDLEY

INTRODUCTION TO MICROSOFT

POWER BI

BRING YOUR DATA TO LIFE!

M.O. CUDDLEY

ISBN-13: 978-1533373892

ISBN-10: 1533373892

BOOKS BY M.O. CUDDLEY

Introduction to Microsoft Power BI

Microsoft Office 365: A Beginners User Guide

Microsoft Office 365: An Admin Guide

Migrating Emails from Google Apps to Office 365

CONTENTS

INTRODUCTION

WHAT IS POWER BI?

Power BI is a suite of Business Analytics tools to analyze data and share insights. Power BI dashboards provide a 360-degree view for business users with their most important metrics in one place, updated in real time, and available on all of their devices.

What this means is that Microsoft is bringing the power of data analysis and visualization to every user in the organization and not just the technical or IT team. Organizations now have the ability to analyze and visualize data across different line or business applications, whether that data is resident on premises, in the cloud, or in a mix of both places. This experience is consistent regardless of the device the user is accessing it from – whether it is a desktop, laptop or mobile device.

With Power BI, Microsoft is offering organizations the ability to have a single view of their most critical data, as well as monitor the health of their businesses at every point in time. Cool right? What's even better is that the basic features of Power BI are free!

FEATURES OF POWER BI

In this section, we are going to look at the features that individuals and organizations can get when they decide to use Power BI.

1. **Easy to setup:** With Microsoft Power BI, you can get started in seconds. Signing up for the online service is FREE and you can take advantage of the simple, out of the box dashboards for common services like Salesforce, Google Analytics and Dynamics to start getting insights from your data in no time. You don't need to fill in your credit card details as the only requirement for this service is a work or school email address.
2. **Access your data wherever it is:** With Power BI, it doesn't matter where your data is stored. Whether the data is stored in Excel spreadsheets, available online or resident in an on premise database management system, you can still get a holistic view of the key metrics for your business from all the different sources.
3. **Real Time reports:** Microsoft Power BI offers interactive dashboards that display the changes to your data as they occur in real time. This means that you can notice trends, solve problems and seize opportunities as they occur. There are no more unnecessary delays with Power BI.

4. **Ask questions and get answers:** This is by far, one of my favorite features of Power BI. You can ask questions based on the data in your report and Power BI will provide you with the answers. It works similarly to a Google search. When you begin typing your questions, Power BI will give you suggestions on all possible questions that are similar to the one you are typing and that can be answered with the information contained in your report. Imagine asking a question like "What was last year's profit by product?" and getting the correct information provided to you visually. Power BI supports asking questions in a natural language, which in my opinion, is an awesome feature. Please note that at the time of writing this book, the only supported language for asking questions in Power BI is English.
5. **Get everyone on the same page:** Power BI provides organizations with a single view of the truth. This means that all stakeholders will have the current status of the business at every point in time. Power BI Groups allow you to collaborate with the key stakeholders of your business in order to make quick and confident decisions.
6. **Make data-driven decisions from anywhere:** Power BI gives you the ability to stay on top of your data, wherever you are. With

touch-enabled native apps for Windows, iOS and Android, you can access all your data wherever you go. Gone are the days when business decisions were made only in the office. Welcome to the Power BI age.

7. **Curated content just for your organization:** With Power BI, you can create and publish content packs to your team or your entire organization. The content packs can include dashboards, reports and datasets that provide every user with a personalized view of the business metrics that matter most to them.
8. **Integrate your application or service with Power BI:** Organizations can use the open, standards-based REST API to integrate their applications or services with Power BI, thus leveraging its rich and interactive reporting capabilities. This integration helps you deliver your solutions faster, while focusing on your core value.
9. **Share insights on your website or blog:** With 'Power BI publish to web', organizations can create stunning visualizations and embed them on their websites within minutes. If your organization intends to share information like its annual reports in a visually engaging way on its website, from where your customers, partners and shareholders can access it, using Power BI is a great way to

achieve that.

WHO SHOULD USE POWER BI?

Every organization should use Power BI. Here's why.

Any organization that wants to succeed should stay in the know of important metrics and trends going on within and outside their organization. They need key insights into their performance, profitability as well as their ranking or position among their competitors. They need to be able to spot trends as they happen, react to scenarios that require immediate attention, as well as seize new opportunities as they occur.

A great way to do all of this is to get valuable insights through interactive reports and dashboards. There are a number of applications out there that are available for organizations to achieve these goals but unfortunately, they are plagued with problems of their own. A lot of them are inefficient, slow and difficult to use.

Imagine having to make a decision on something and waiting for two days to get the report you need to make that decision. By the time the report gets to you, the data it contains is already two days old. If you happen to be out of the office at the time the report is generated, you are unable to view it on any of the mobile devices in your possession and would have to make a trip back to the office to work with it. Apart from the information presented in the report, you are unable to ask other relevant questions based on the data in the report

without calling on your team, probably because the report is not interactive.

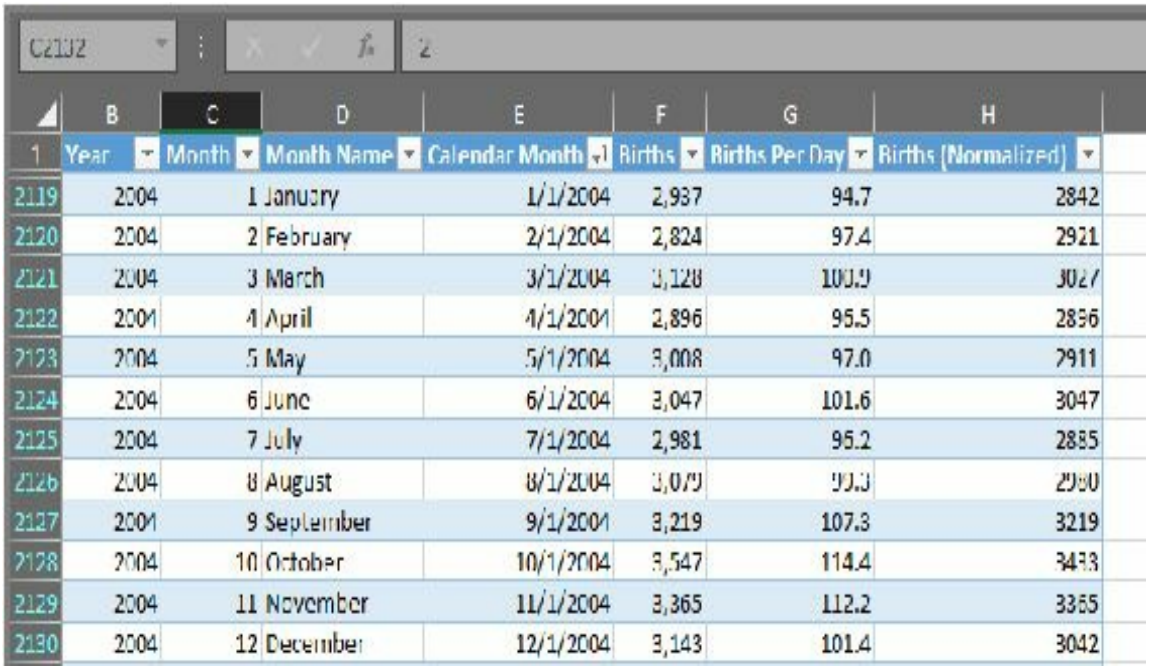
You don’t need all that hassle just to get the insights you require. Today’s business decision makers require fast access to correct data from whatever location they are, and in a secure manner. This is what Microsoft Power BI offers in a nutshell.

BUILDING BLOCKS OF POWER BI

Everything you do in Power BI can be broken down into a few basic building blocks. If you understand these building blocks, you can expand on each of them with the goal of creating elaborate and complex reports. Let's take a look at these basic building blocks.

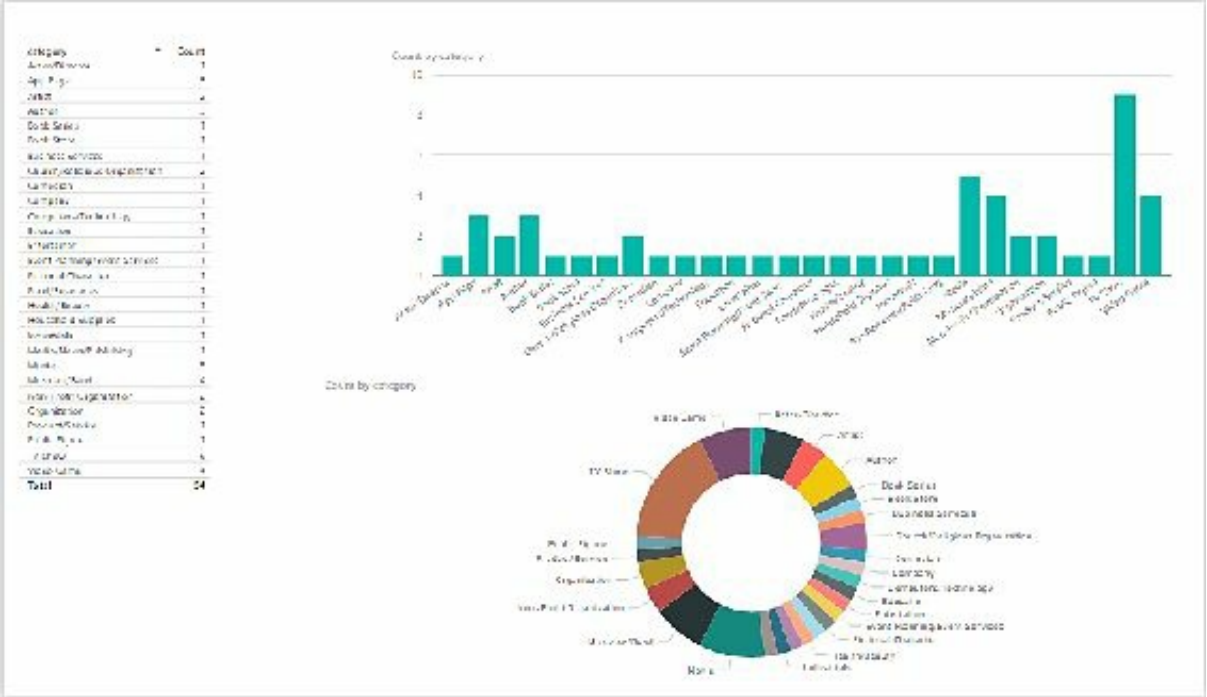
1. **Visualizations:** In the world of Power BI, a visualization can be referred to as a visual representation of data. This representation can be in the form of a chart, graph, map, or any other interesting thing that you create to represent your data. Power BI has a good number of visualizations that can help you represent your data in creative ways. The image below shows a few of the visualizations that are present in Power BI.

2. **Datasets:** A dataset is a collection of data that is used by Power BI to create visualizations. Simply put, it is the data behind the chart, graph or map in your report. For example, if you have a chart that displays the number of products sold in each month of the year, the data used to produce that chart is known as the dataset. The data in a dataset does not have to come from a single source. It can be a filtered collection of data which you combined from multiple different sources to produce a unique collection that can be used in Power BI. With the impressive number of connectors included in Power BI, you can get data from wherever it is – Excel, Salesforce, Twitter, Oracle, SQL Server etc. – and bring it into your dataset. The image below shows a sample dataset in Power BI.

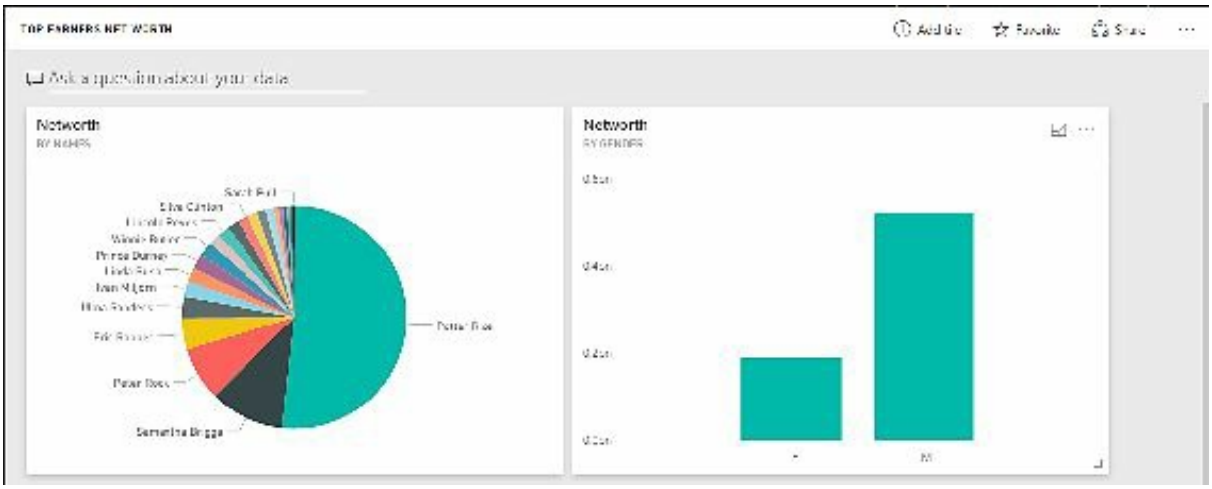


	B	C	D	E	F	G	H
1	Year	Month	Month Name	Calendar Month	Births	Births Per Day	Births (Normalized)
2119	2004	1	January	1/1/2004	2,937	94.7	2842
2120	2004	2	February	2/1/2004	2,824	97.4	2921
2121	2004	3	March	3/1/2004	3,128	100.9	3027
2122	2004	4	April	4/1/2004	2,896	95.5	2866
2123	2004	5	May	5/1/2004	3,008	97.0	2911
2124	2004	6	June	6/1/2004	3,047	101.6	3047
2125	2004	7	July	7/1/2004	2,981	96.2	2885
2126	2004	8	August	8/1/2004	3,079	99.3	2980
2127	2004	9	September	9/1/2004	3,219	107.3	3219
2128	2004	10	October	10/1/2004	3,547	114.4	3433
2129	2004	11	November	11/1/2004	3,365	112.2	3365
2130	2004	12	December	12/1/2004	3,143	101.4	3042

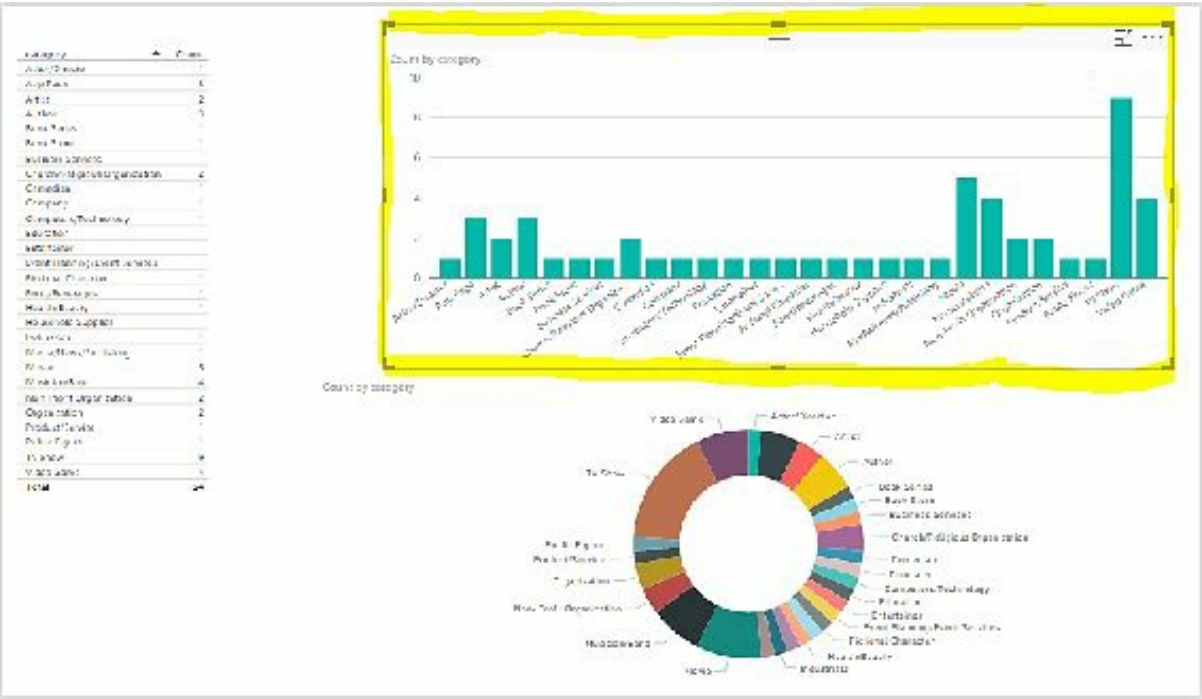
3. **Reports:** In the world of Power BI, a report is a collection of visualizations that appear together on one or multiple pages. Reports help you arrange your visualizations in a way that tells the story of your data, just the way you want it. For example, if you want to show the sales of your company's products within the different regions of your country, you can have a report comprised of a number of charts (pie, line or bar charts), maps and graphs that display the information you want to pass across. The image below shows a sample report in Power BI.



4. **Dashboards:** In the world of Power BI, a dashboard is a collection of visualizations on a single page, which you can share with others. While it is visually similar to a report, a dashboard has to fit on a single page and can be shared with other users who will be able to interact with the data presented in the dashboard. If you create a dashboard and share it with the sales head for example, he or she should be able to interact with it and view new information different from the one which is clearly visible on the dashboard, based on the data present. The image below shows a sample dashboard in Power BI.



5. **Tiles:** In the world of Power BI, a tile is a single visualization on a report or dashboard. For example, if you have a report or dashboard containing a pie chart, a map and a graph, each one of them is known as a tile. So, in that report or dashboard, you have three tiles. Power BI enables you to move and arrange your tiles in any way you want to present your information. The image below shows a single highlighted tile, surrounded by two other tiles.



Now that you have a good understanding of the building blocks of Power BI, it is time to explore the tools that make it all happen. Power BI tools make it possible for you to create datasets, reports and dashboards as well as share these with the people who need them.

POWER BI TOOLS

We defined Power BI as a suite of Business Analytics tools that enable us analyze our data and share the insights we derive. In this section, we are going to take a look at the different tools that make up our solution.

1. **Power BI Desktop:** Power BI Desktop is an elegant end-to-end solution for building analytics. It has all the capabilities to quickly connect, shape, visualize, and share data insights through Power BI. This desktop application is easy to use and designed to save valuable time and effort by simplifying the process of getting your data ready for analysis. Power BI Desktop puts visual analytics at your fingertips with intuitive report authoring. You can drag-and-drop content to place them exactly where you want them on the flexible and fluid canvas. It enables you to quickly discover patterns as you explore a single unified view of linked and interactive visualizations
2. **Power BI Service:** This is a cloud based service that you subscribe to. It enables you create and publish your Power BI reports. You can share the reports from this service with other people who can either view them within the service or in the mobile app.

3. **Power BI Mobile:** With apps that are available, and can be downloaded from the Windows store, App store, and Google Play, Power BI gives you the ability to stay connected to your data from anywhere and at any time. Having a 360 degree view of your data on the go is sure to keep you ahead of trends as you stay focused on what matters most to you. You can view your personalized dashboards and reports from anywhere, as well as easily interact with your data using a touch- optimized experience. Data-driven alerts help you stay up to date with important insights and act of them without delay. You can also share live reports and dashboards with your team and trusted partners to keep everyone on the same page.
4. **Power BI Gateway:** This is installed on premises to enable data refresh on published reports in the Power BI service. It is available in two editions – Personal and Enterprise, for use in home and Enterprise scenarios respectively. So let's say you have used data contained in both your SQL Server and Oracle databases to create a beautiful report containing all those important metrics your CEO will like to see, and have published that report to the Power BI service to make it available online. How do you keep the data in the report current so that your CEO can always have the correct

information regardless of the time he views the report? That's where the Power BI Gateway comes in. It connects to your on premises data sources and refreshes the online data to make sure that it is always current. You can schedule this refresh to a time that is suitable for you, for example, hourly, daily or weekly.

Now that you have a good understanding of the features and capabilities of Power BI, as well as the tools you need to make all the magic happen, it is time to dive in and get your hands dirty. The next section explains the detailed steps required to get you started.

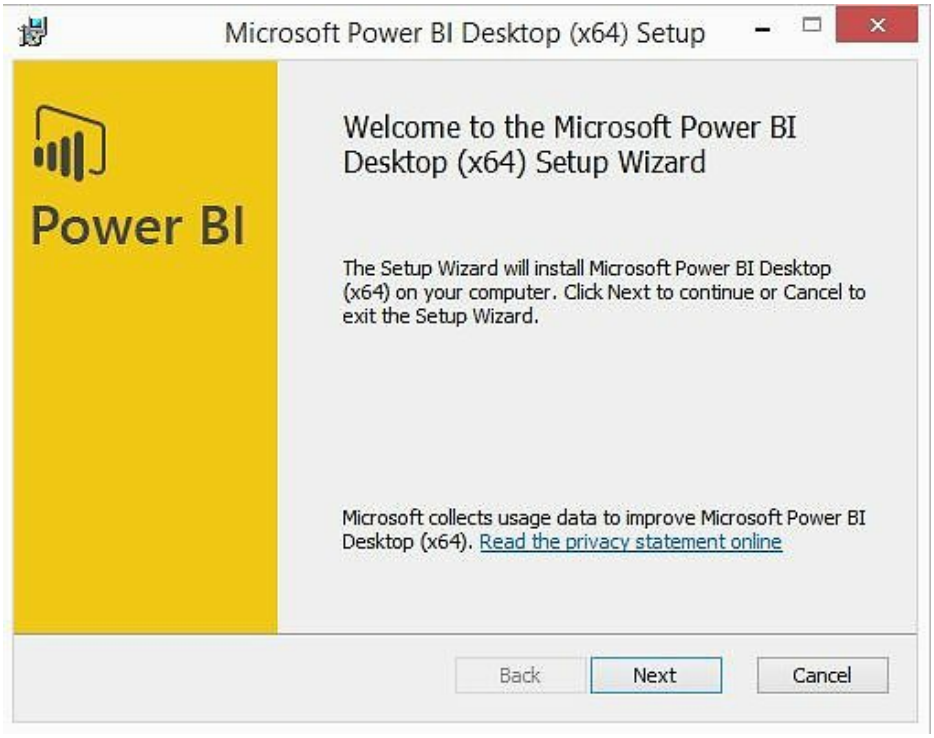
CHAPTER ONE

GETTING STARTED

INSTALLING THE POWER BI DESKTOP APP

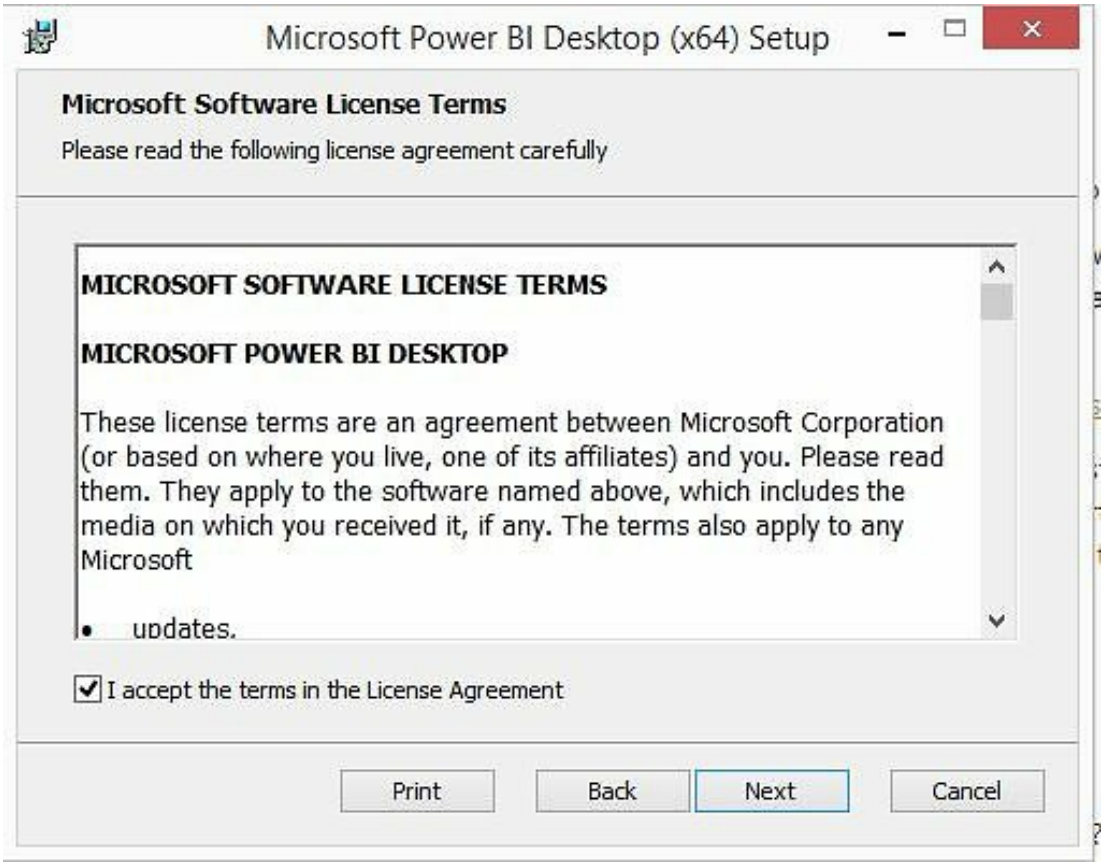
The steps listed below will show you how to install the Power BI Desktop application.

1. Download the free Power BI Desktop installation file from the website here.
2. Launch the installer by double clicking on it. Click next to continue.

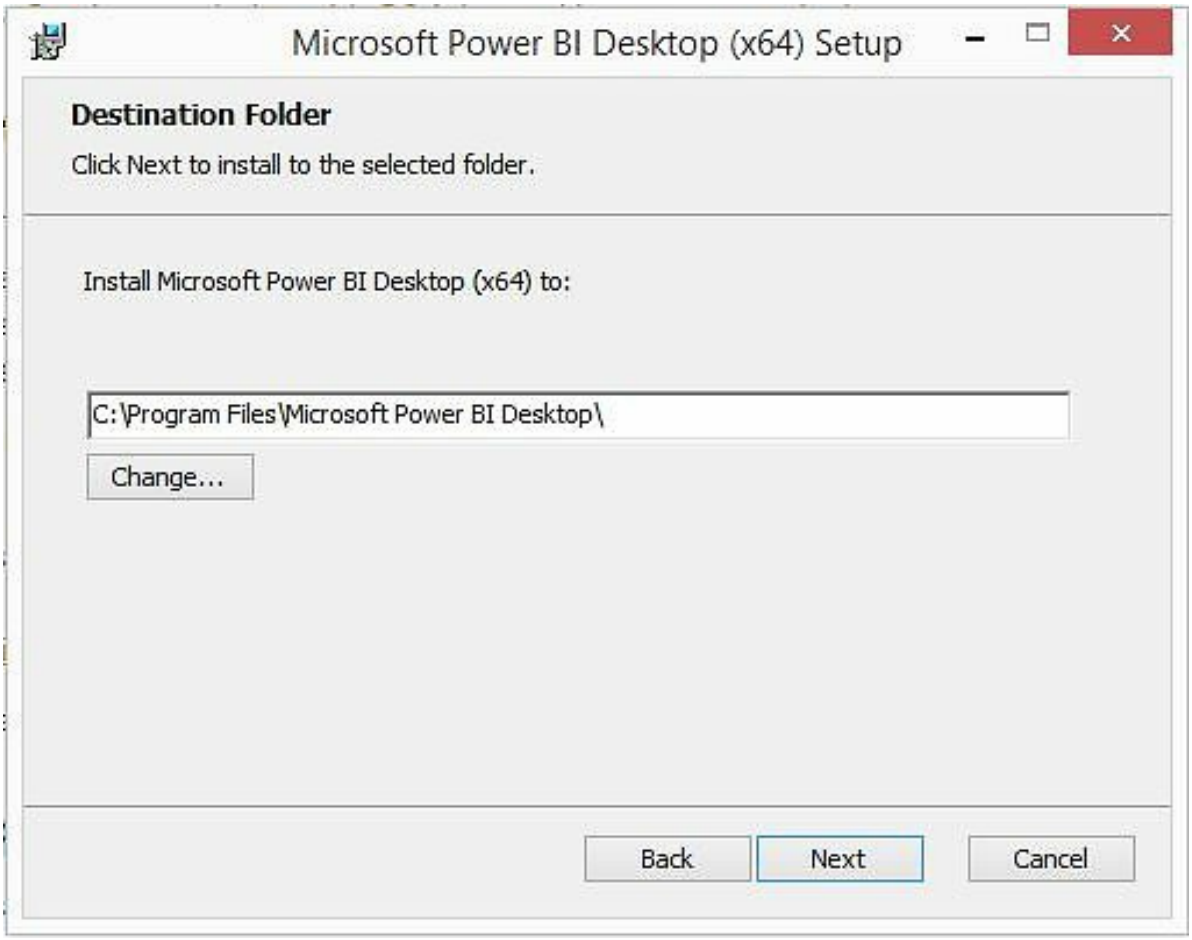


3. Read and accept the terms in the License Agreement. Click next to

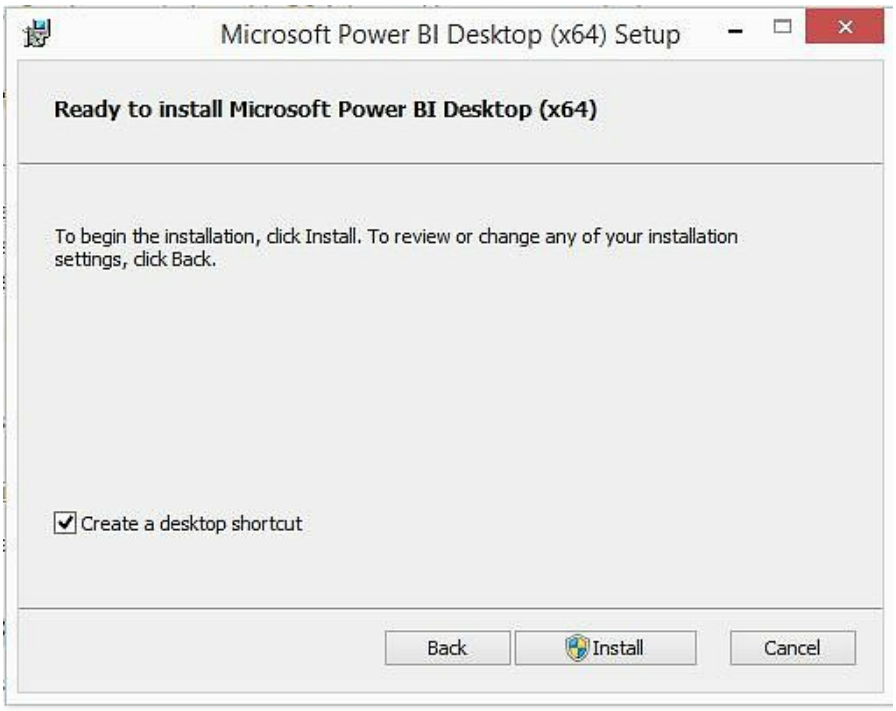
continue.

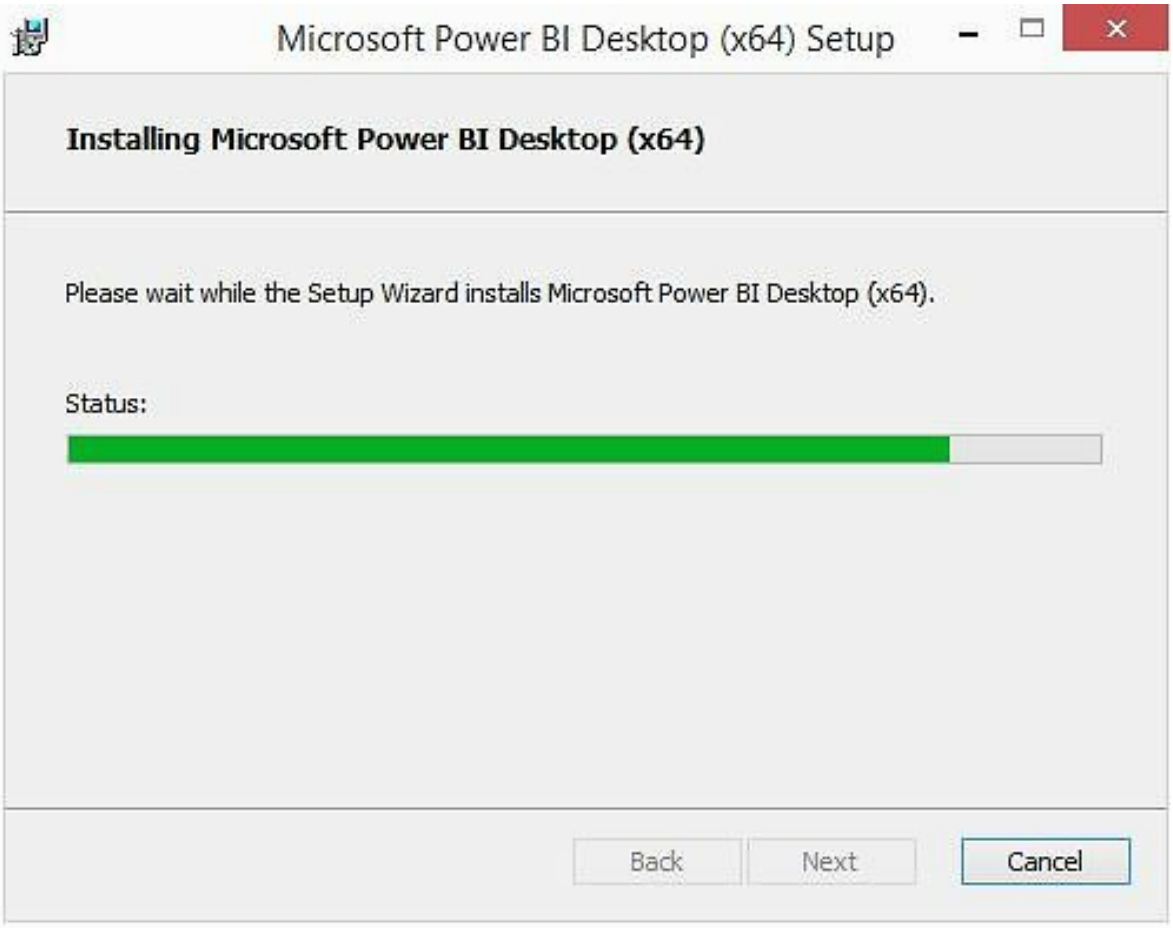


4. Select the installation folder and click next to continue.

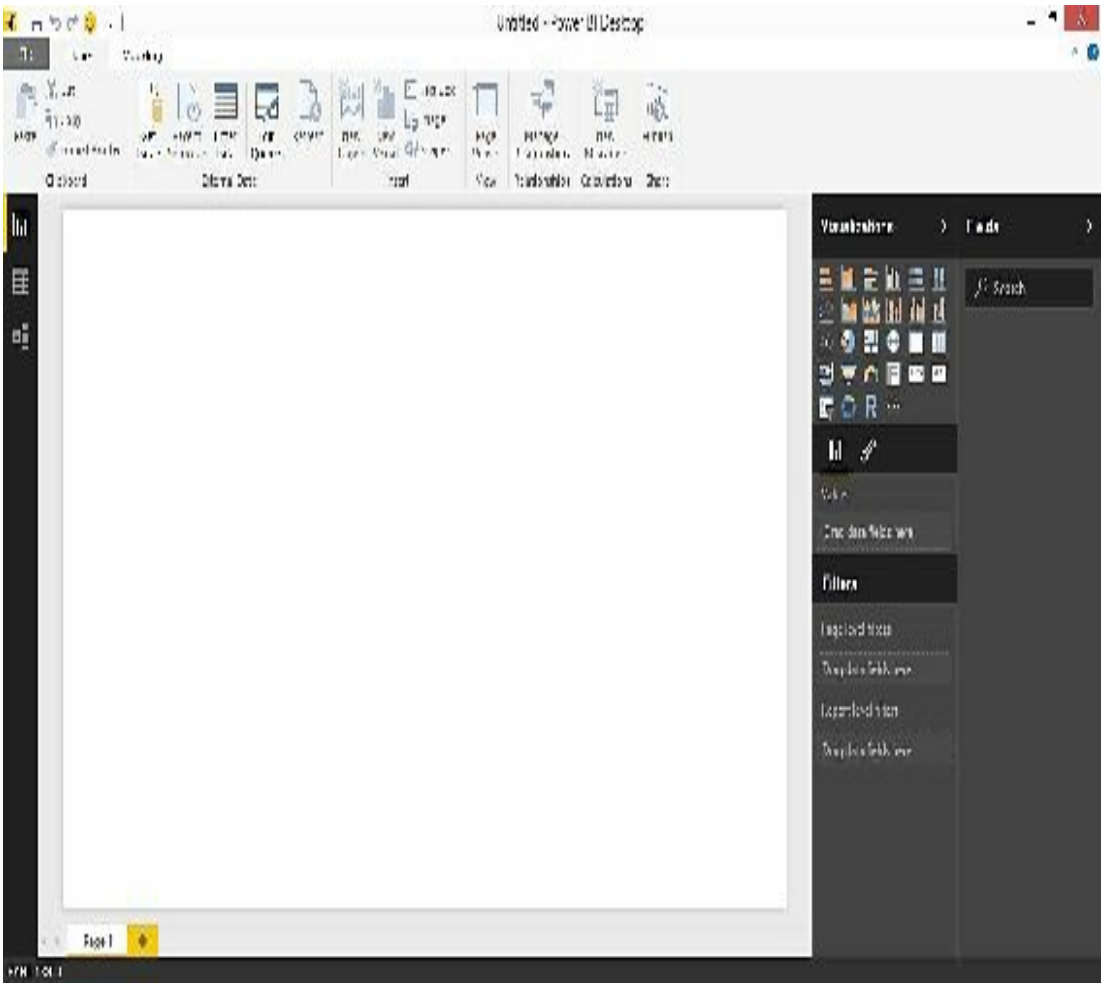


5. Click Install to begin the installation.


Microsoft Power BI Desktop (x64) Setup
Ready to install Microsoft Power BI Desktop (x64)
To begin the installation, click Install. To review or change any of your installation settings, click Back.
Create a desktop shortcut
Back
Install
Cancel


Microsoft Power BI Desktop (x64) Setup
Installing Microsoft Power BI Desktop (x64)
Please wait while the Setup Wizard installs Microsoft Power BI Desktop (x64).
Status:
Back
Next
Cancel

6. Click Finish to close the setup and launch the application.



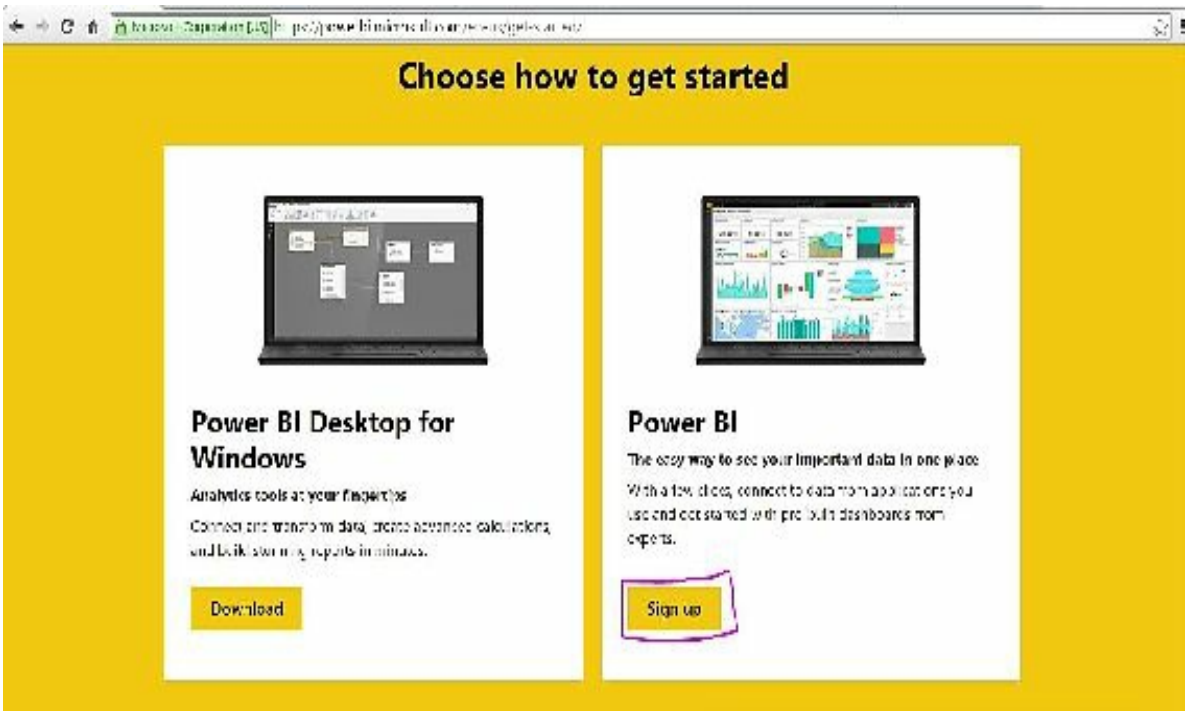
SUBSCRIBING TO THE POWER BI SERVICE (FREE)

To use the Power BI online service, you need to have an active subscription. If you have an existing subscription on Office 365 with a plan that allows the Power Bi trial, simply assign the free Power BI licenses to your users and they can start using the service.

If you do not have an existing Office 365 subscription and would like to subscribe to the Power BI online service, follow the steps below.

1. Browse to the Power BI portal here and click on "Get started free".

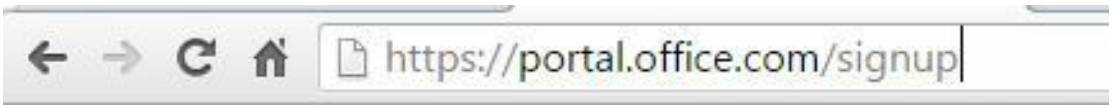
2. Click on "Sign up".



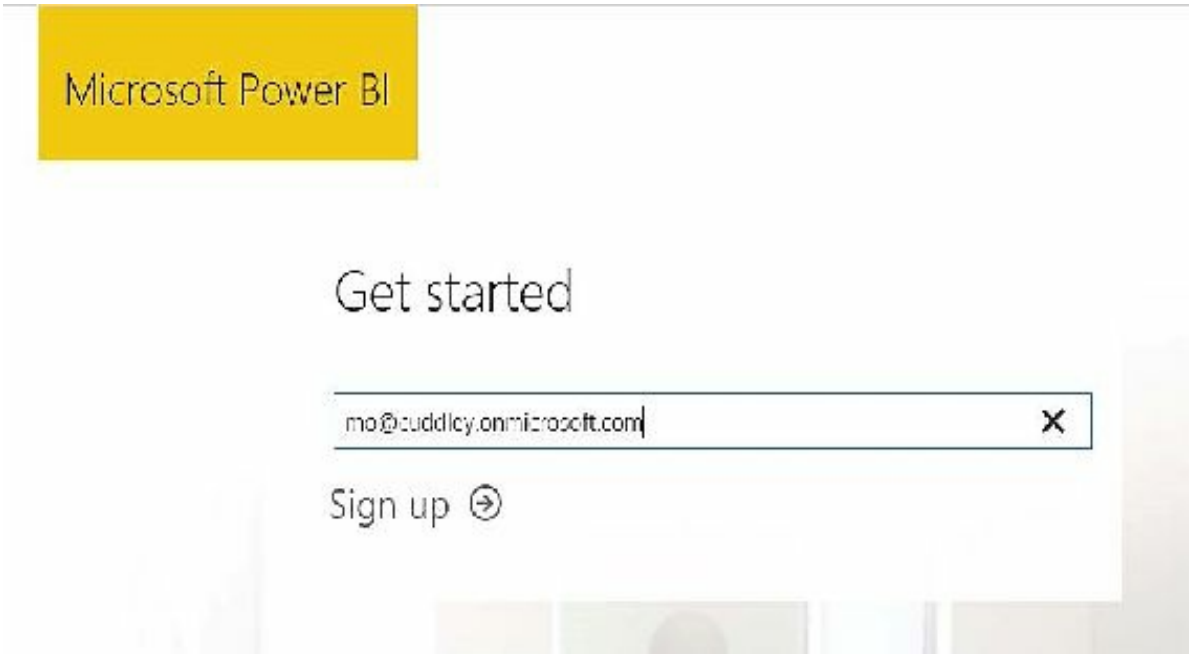
3. If you see the error message below (Bad Request – Request Too Long), clear everything after the question mark in the address bar.

4. Once the address in the address bar looks like the one shown in the image below (https://portal.office.com/signup), press Enter on your

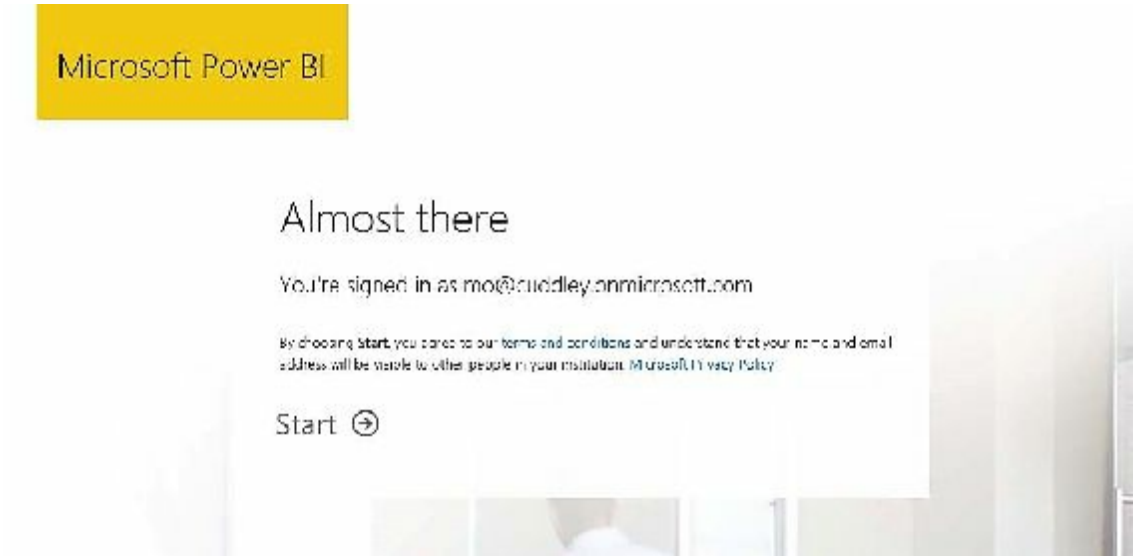
keyboard.

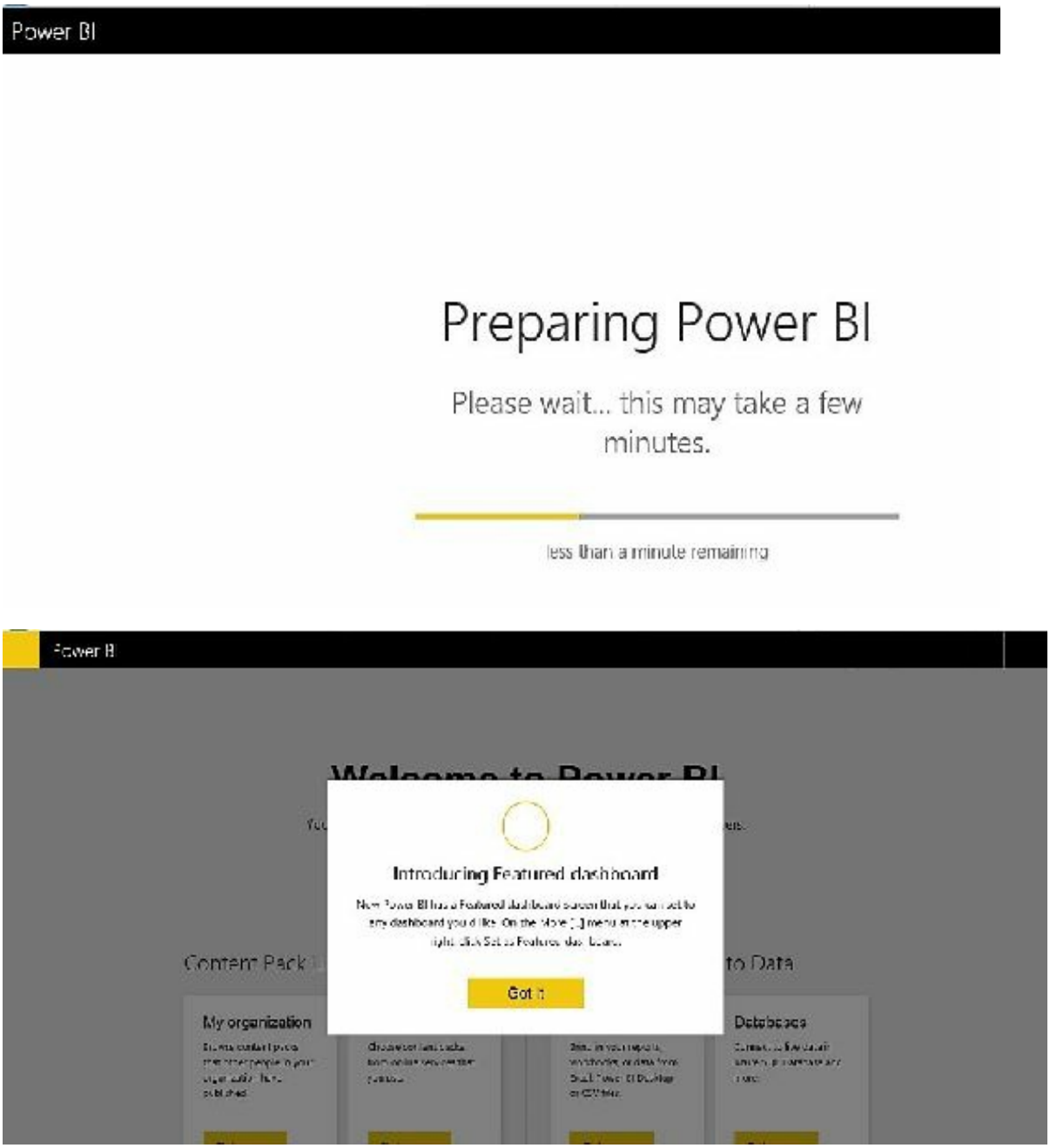


5. Fill in a work or school email address and click “Sign up”.

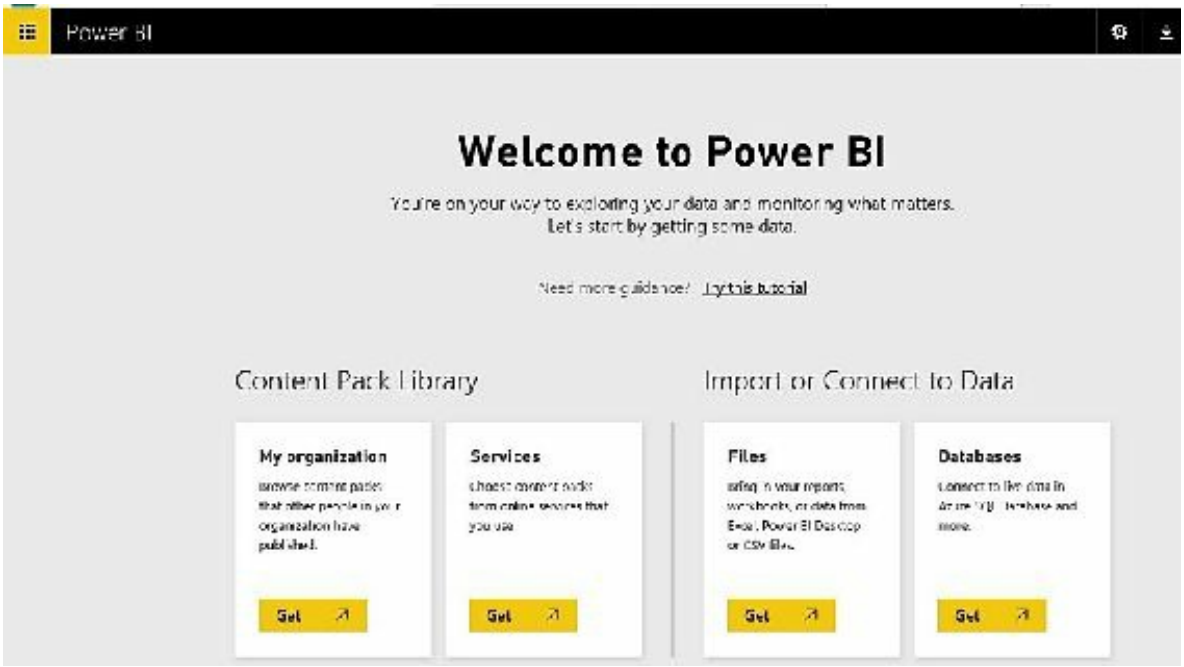


6. Click “Start” on the next page.



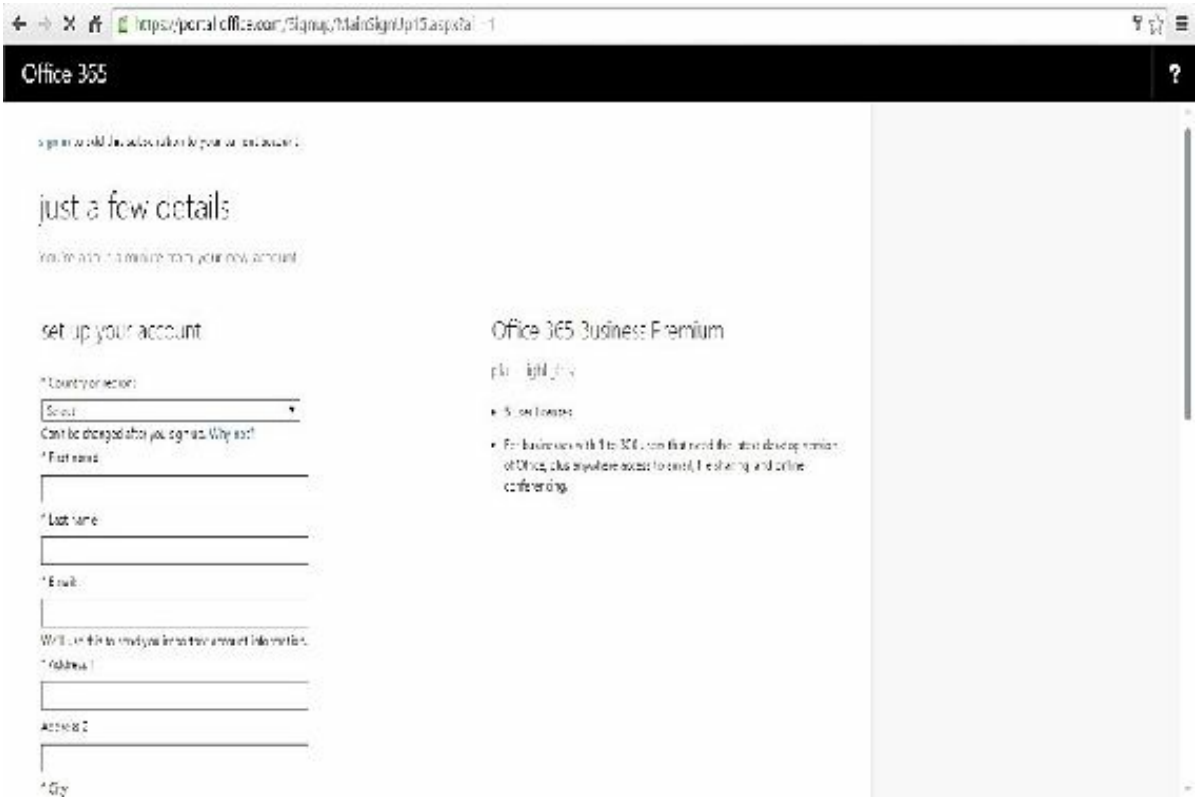


7. Click “Got it” and you’re in.



Please note that if you are a regular user and your email address is not associated with an Office 365 subscription, you will be required to fill in your details so a new account will be created for you. The form you have to fill out

will look like the one below. Fill in the required details and click “Continue” at the bottom of the page to sign up.



SUBSCRIBING TO POWER BI PRO (PAID)

Why should you sign up for Power BI Pro when there is a free version of the service? Because the Pro version gives you access to the following features which are either limited or not available in the free version.

1. The data capacity limit for Power BI Pro is 10 GB as opposed to the 1 GB limit for the free version. The Global limit for the entire Power BI Pro tenant of an organization is 10 GB multiplied by the number of user licenses purchased. So, if you purchased 5 user licenses for example, the data limit for your tenant will be 10 GB multiplied by 5 which is 50 GB. As a general rule, if you're going to have data greater than 1 GB on the Power BI Service portal, you should subscribe for the Pro version.
2. The number of times you can refresh your data per day is up to eight times, as opposed to once in the free version. This means that if you have reports or dashboards that use data from your on premises data sources, you can refresh your data up to eight times a day with the Pro version and only once daily with the free version.
3. For those of you who will like to use the REST API to push data from your applications into a Power BI dataset, you can push up to

one million rows per hour with the Pro version as opposed to ten thousand rows per hour in the free version.

4. Power BI supports the ability to connect to live data sources without loading the data first into the Power BI service. For example, you can use a gateway to connect directly to an on premises SQL Server Analysis Services Server rather than preloading the data into Power BI first. This functionality is only available in the Pro version and you will need to purchase Pro licenses to use it.
5. The ability to access on premises data from the Power BI service using the Power BI Gateway is only available in the Pro version.
6. The ability to collaborate with your team using the Office 365 Groups in Power BI is only available in the Pro version.
7. Organizational content packs can only be created, published and viewed using the Pro version of Power BI.
8. Managing Access Control and sharing through Active Directory Groups is only available in the Pro version.
9. Using Shared Data Queries through the Data Catalogue is only available in the Pro version.

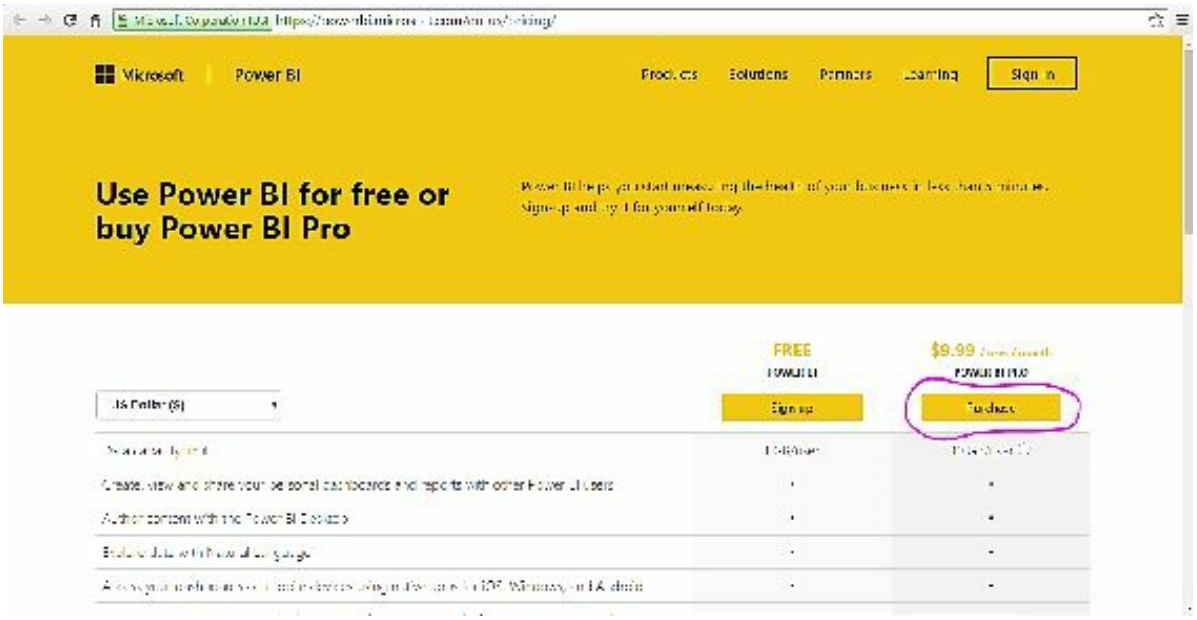
If your organizational requirements include features available only in the Pro version and you will want to use it, you can purchase it here for $9.99 per user

per month.

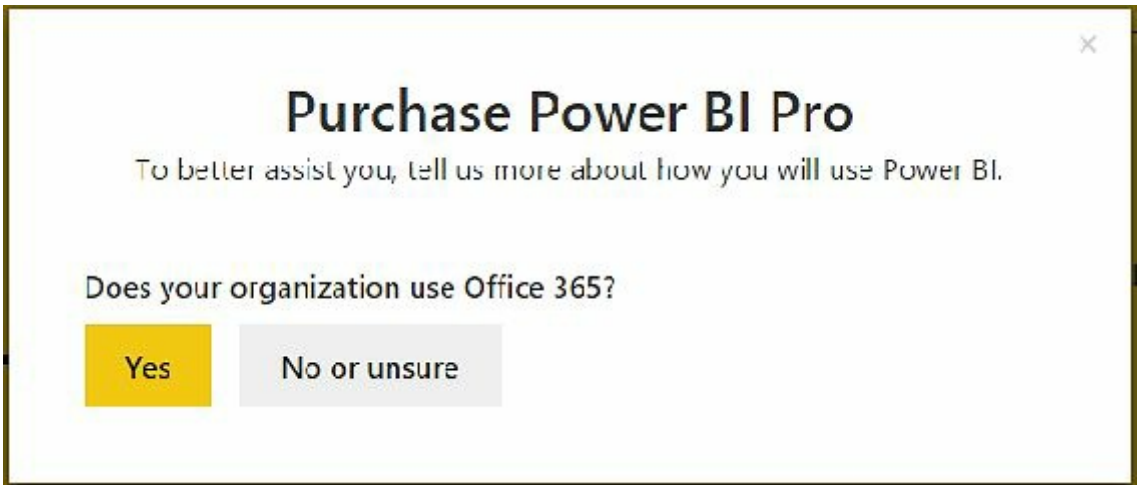
You should note that every user consuming Power BI Pro content requires a Power BI Pro license, and your Power BI tenant can have a mix of free and Pro licenses if you want to have that. Also, the price is listed per user per month, but an annual commitment is required.

To subscribe to the Power BI Pro service, follow the steps below.

1. Browse to the Power BI pricing page here
2. Click on “Purchase”

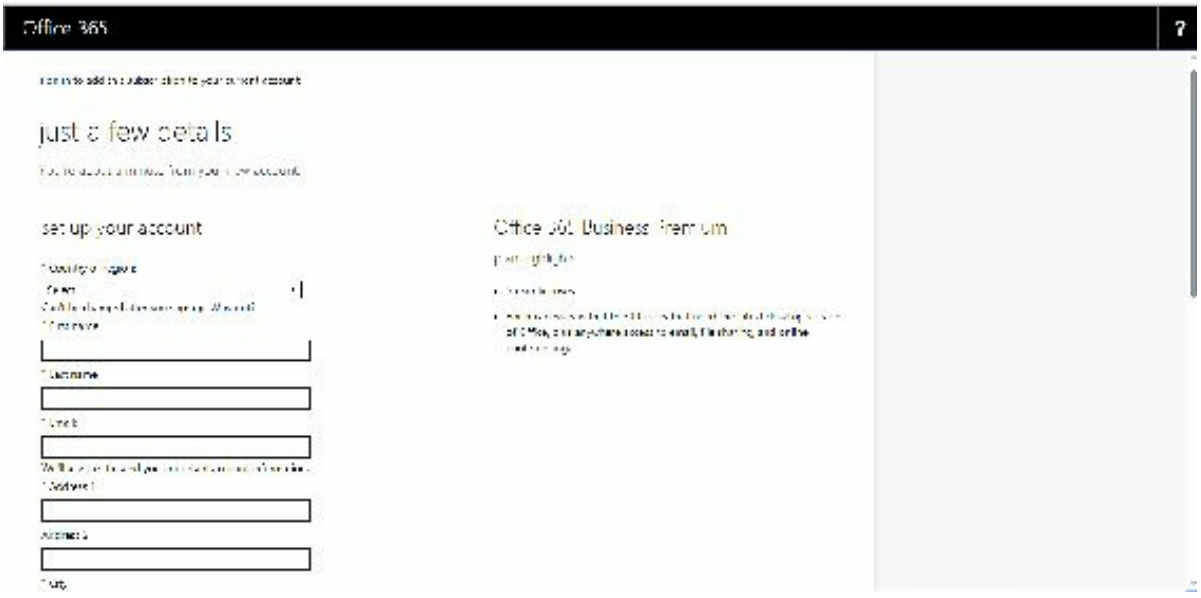


3. Click “Yes” if your organization already uses Office 365 or “No or unsure” if your organization does not.



4. If you clicked “Yes” in step 3, the page below comes up. Click “Yes” if you are the administrator of your Office 365 tenant or “No” if you aren’t.

5. If you clicked “Yes” in step 4, the page below comes up. Fill in the required details and click “Continue”.



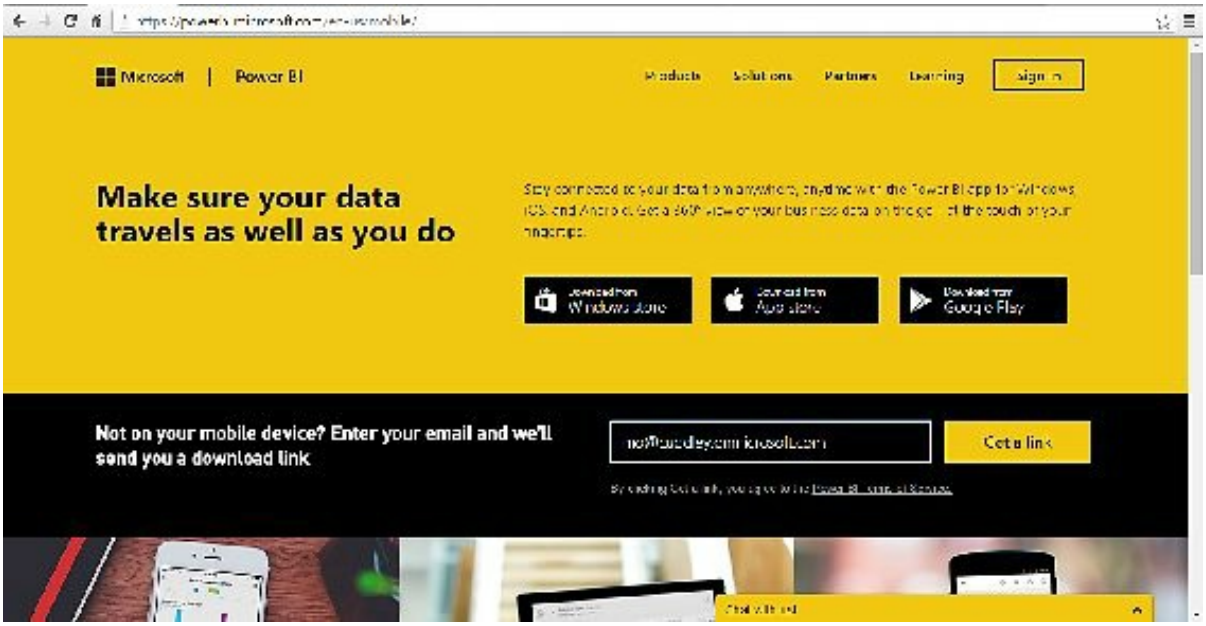
6. If you will like to add the Power BI Pro subscription to your existing Office 365 tenant, click “Sign in” at the top of the page to do so. If not, just fill in the details and proceed to your Power BI Pro account.

Please note that you will be required to fill in your debit or credit card details to make the purchase.

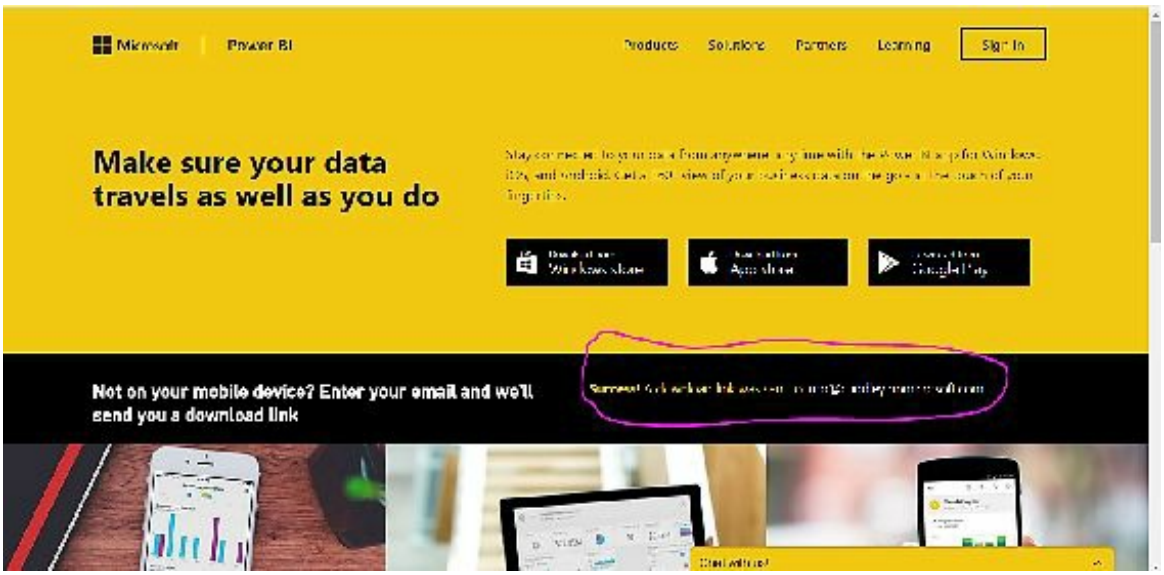
INSTALLING POWER BI MOBILE

To install the Power BI app on your mobile device, follow the steps below.

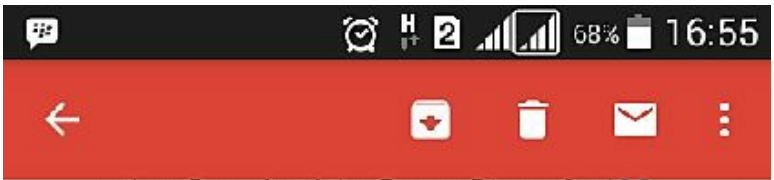
1. Browse to the Power BI mobile page here.
2. Enter your email address and click “Get a link”.



3. You will get a success message that looks like this.



4. Open the email sent to you on your mobile device and click on the appropriate store for your device in the list of app stores contained in the email. You will be redirected to the appropriate store from where you can download the Power BI app.



action. Download the Power BI app for iOS, Android, and Windows.

Download the Power BI app for mobile today

Download from App store

Download from Windows store

Download from Google play

CHAPTER TWO

CONNECTING TO DATA SOURCES

Every organization has data which is resident in different sources. These sources can include Excel files, databases such as SQL Server and Oracle, online locations such as Salesforce and Dynamics, as well as social media sites like Facebook and Twitter.

To obtain the data from these different sources so that you can analyze and produce useful insights from them, you have to connect your Power BI application to these different sources.

Whether you're making use of the Power BI Desktop application or the Power BI online service, you can have a similar experience with connecting to your data sources, and this section will show you exactly how to do that.

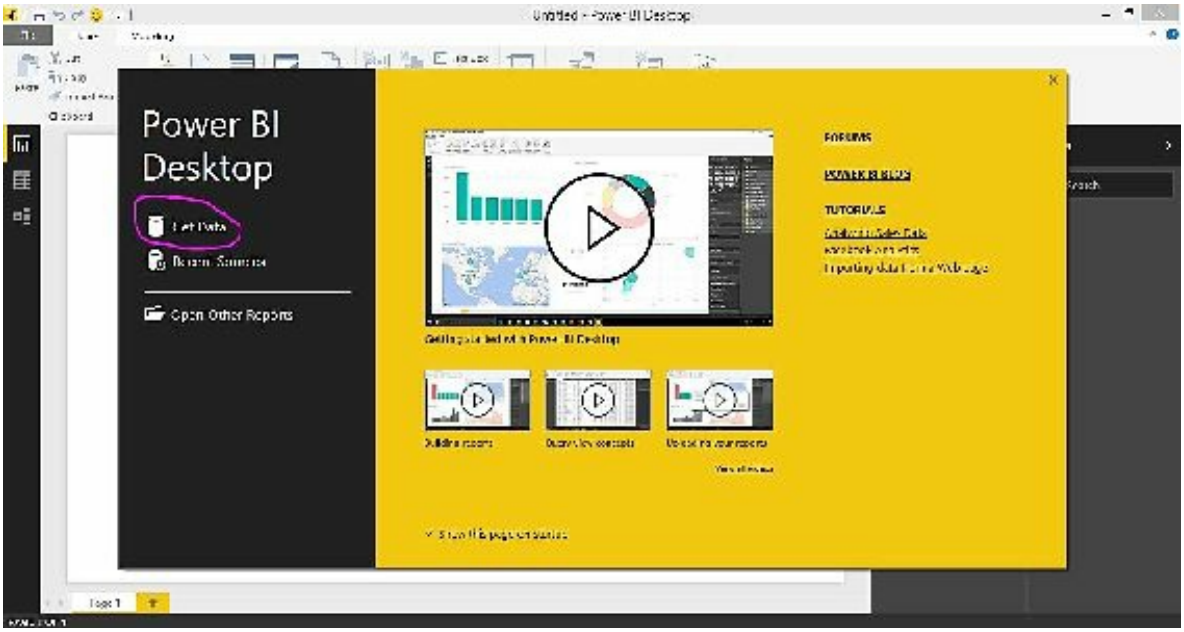
GETTING DATA FROM EXCEL FILES

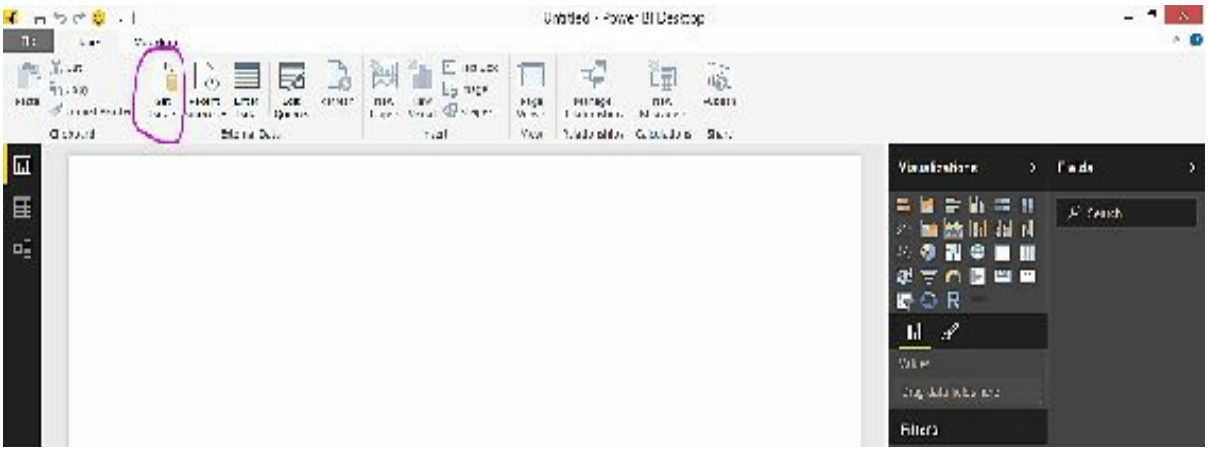
This section shows how to connect to an Excel file in order to get data into Power BI. Since this can be done using both the Power BI Desktop application and the Power BI service, this section will show you how to use both.

USING POWER BI DESKTOP

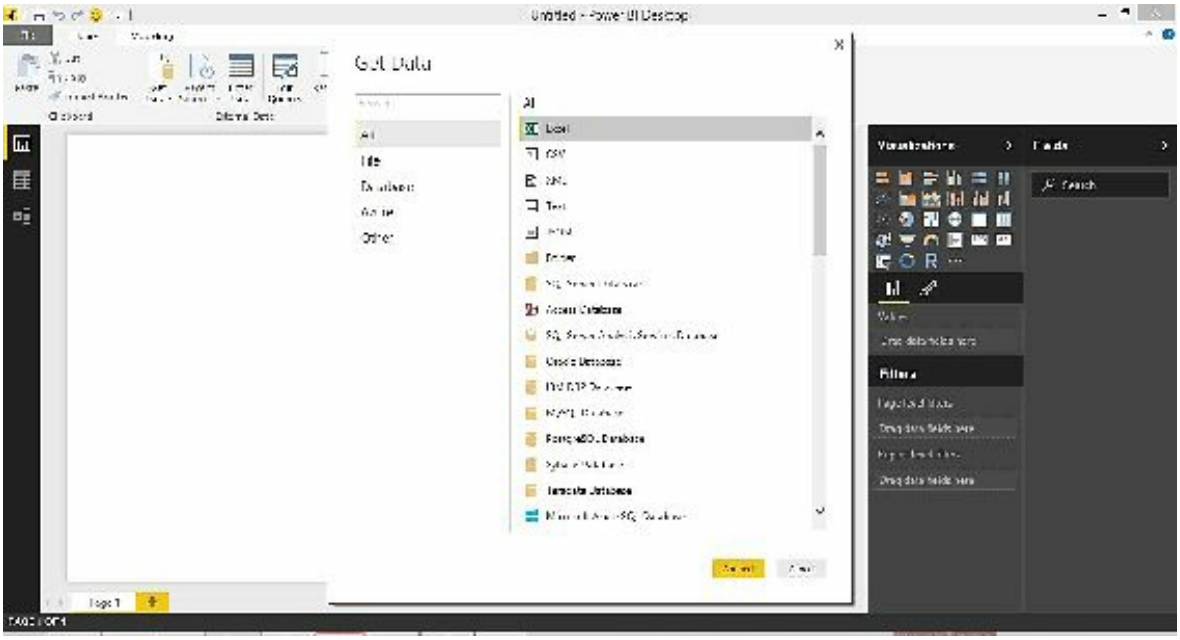
To get data from an Excel file using the Power BI Desktop application, follow the steps below.

1. Launch Power BI Desktop and click “Get Data”. You can also access the “Get Data” icon from the ribbon on top the page.

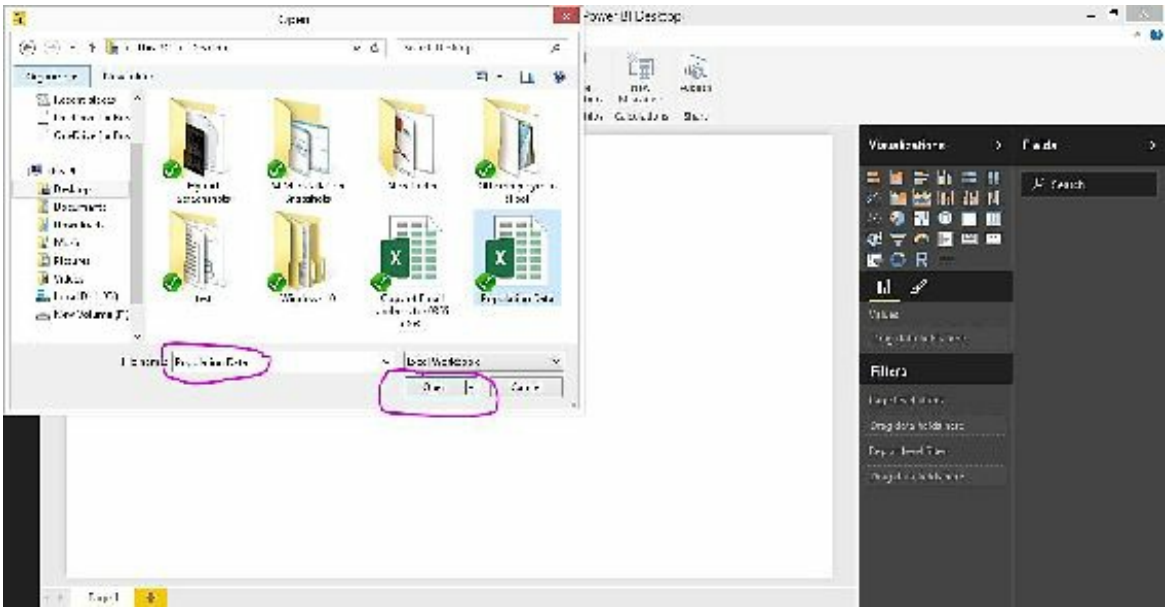




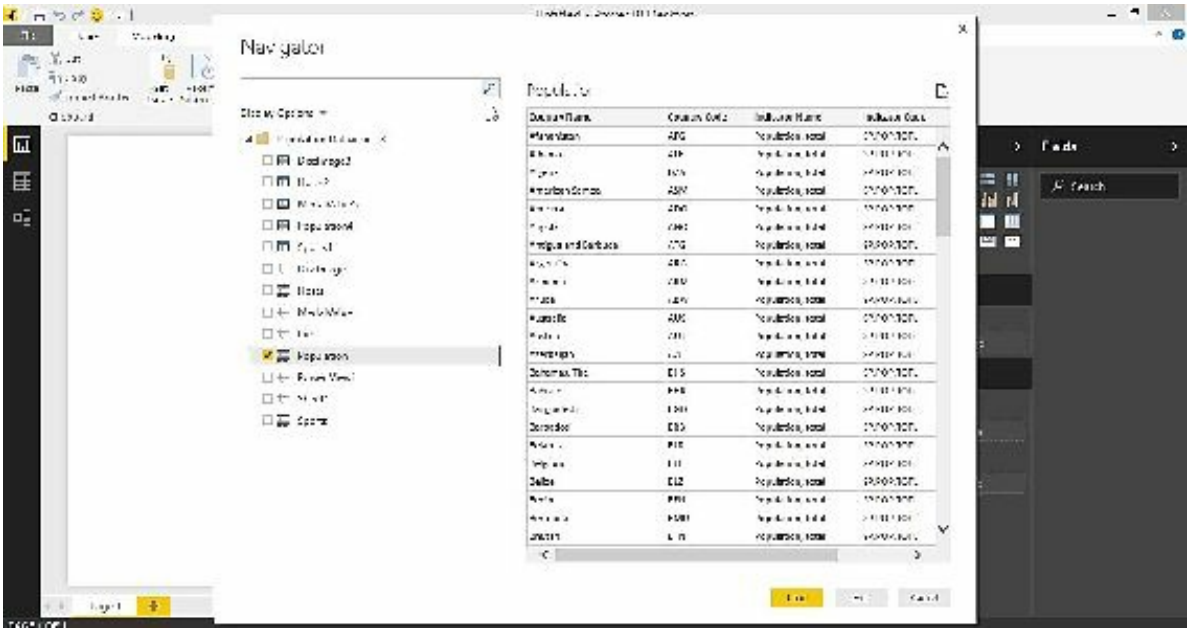
2. Select “Excel” and click “Connect”.



3. Browse to the location of the Excel file and double click it or click on it and select “Open”

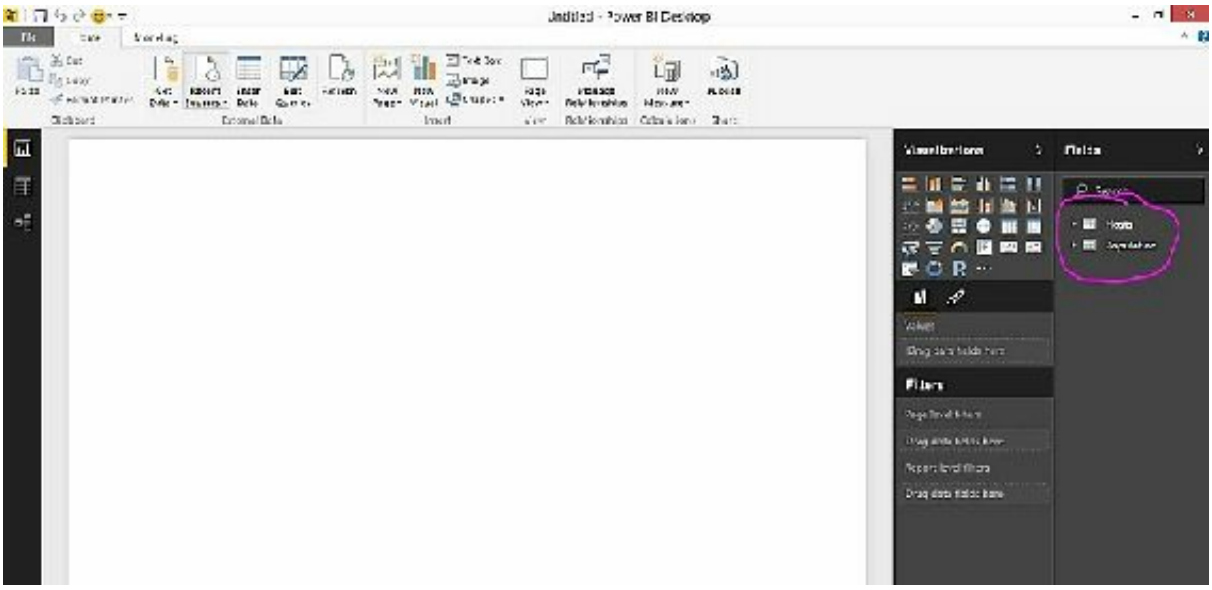


4. Select the sheet containing the data you want and click “Load”. You can select multiple sheets by checking the check box beside the sheet. Once a sheet is selected, a preview of the data contained in that sheet is generated on the right.

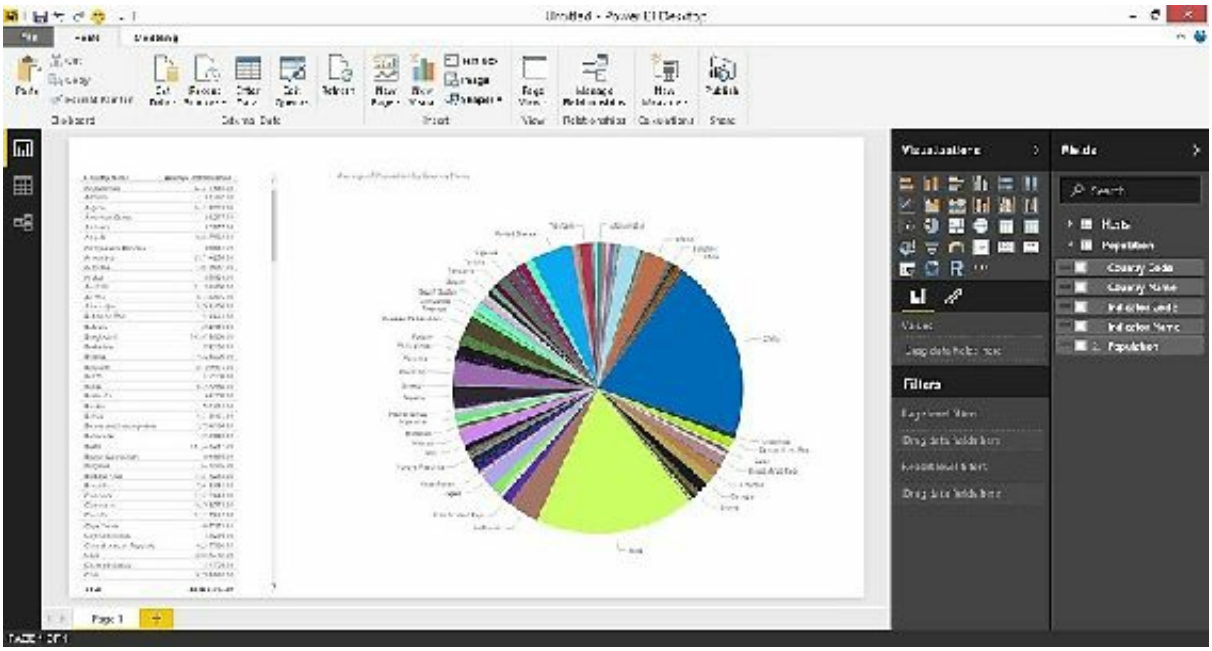


5. The loaded information appears to the right of the Power BI

Desktop app



6. Click on the drop down arrow beside each sheet to view the data columns inside them. Check the check box beside each column you want to see in your report (from the ‘Fields’ section) and select the visualization you want your data represented with, from the ‘Visualizations’ section.

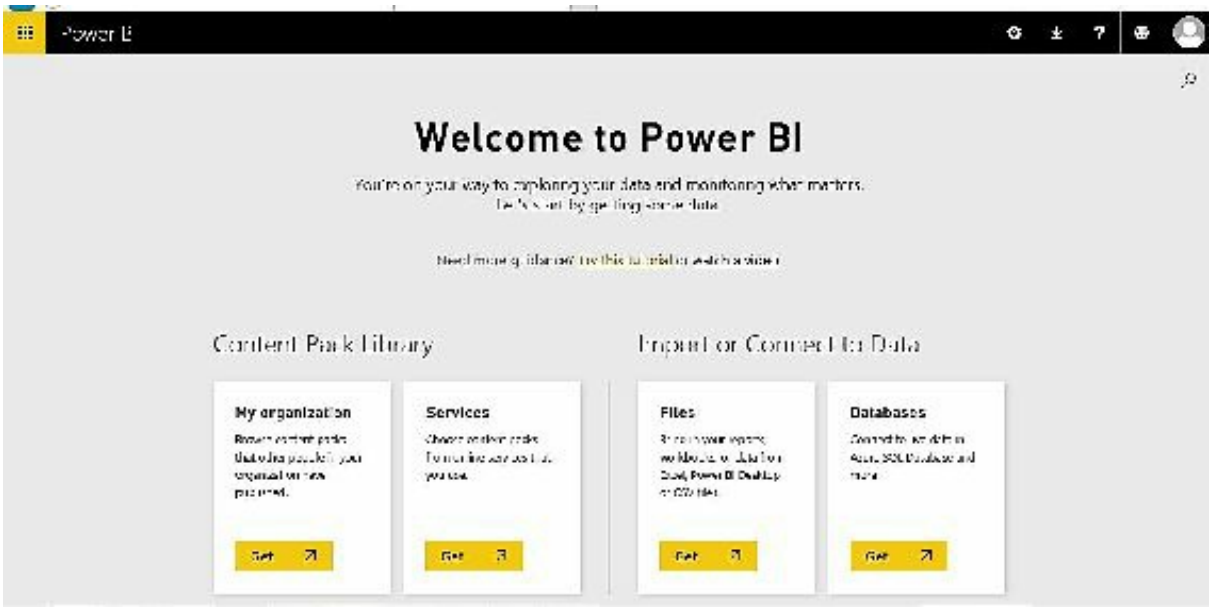


That's it. You have successfully connected to an Excel file and loaded the data into Power BI, using the Power BI Desktop application.

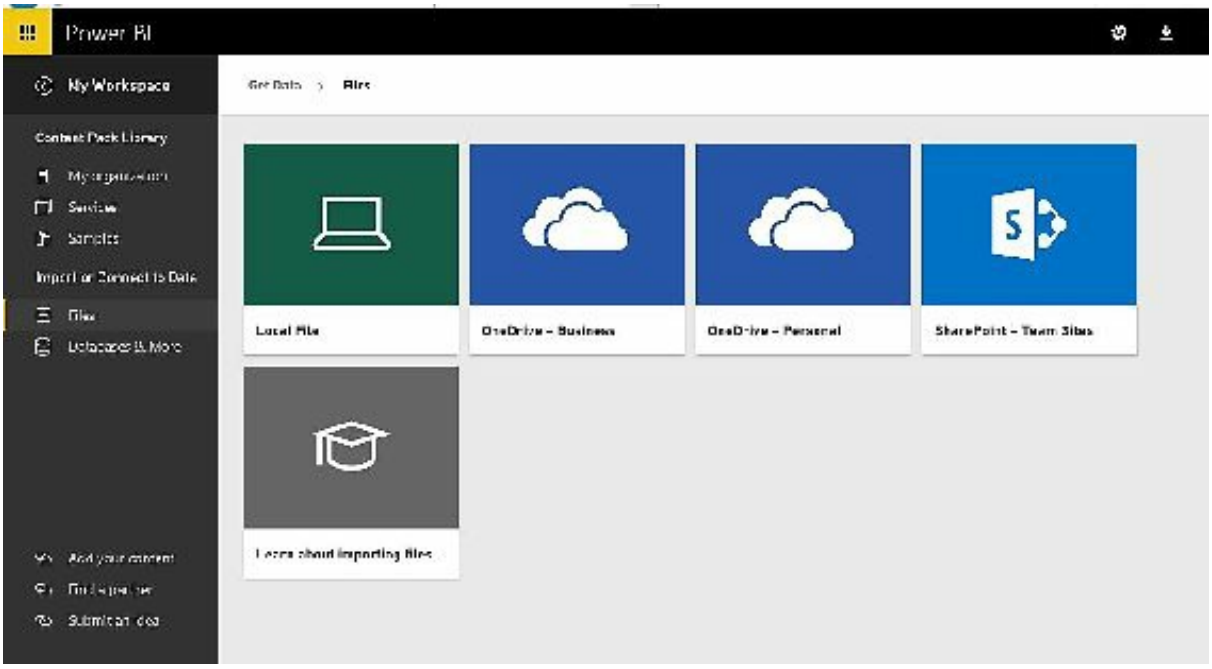
USING THE POWER BI ONLINE SERVICE

To connect to an Excel file from the Power BI Service, follow the steps below.

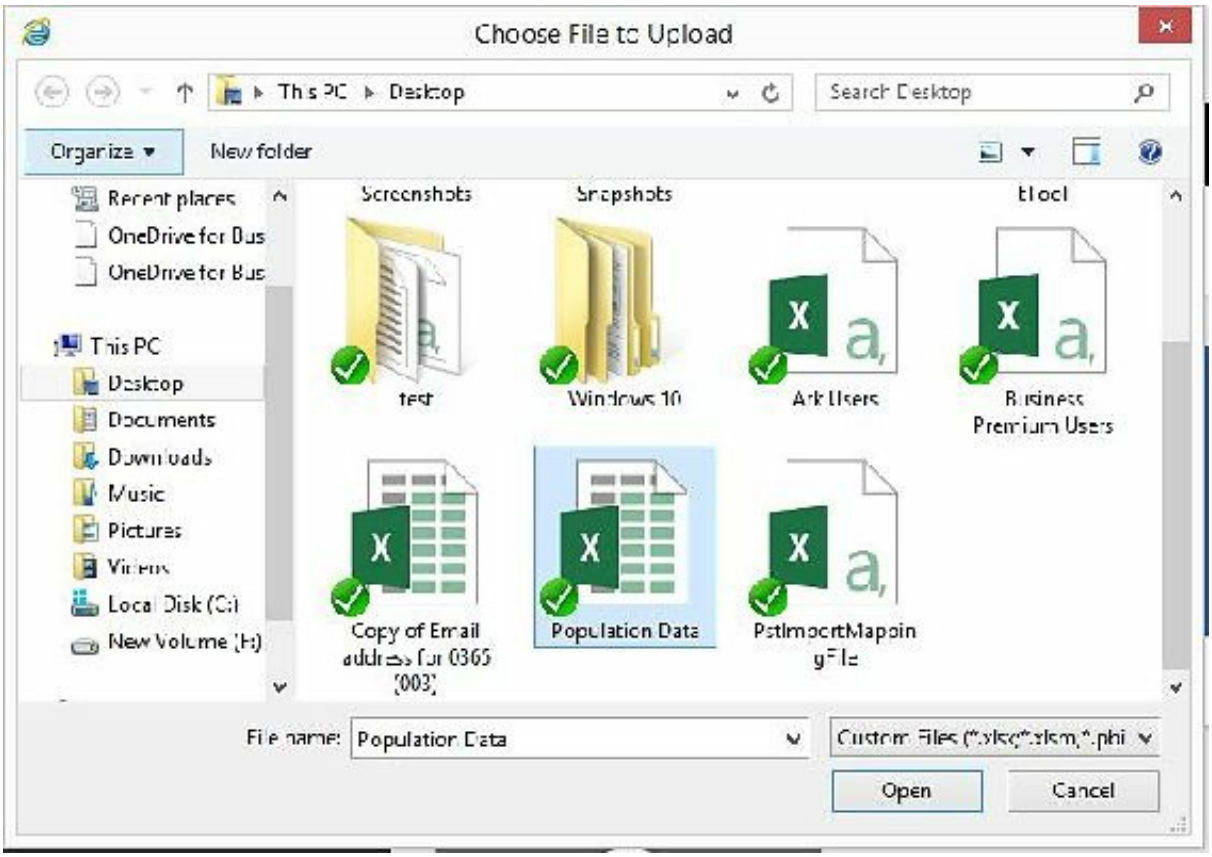
1. Login to the Power BI Service here and click "Login". Enter your username and password and click Enter.
2. Click "Get" in the "Files" sub section of the "Import or Connect to Data" section.



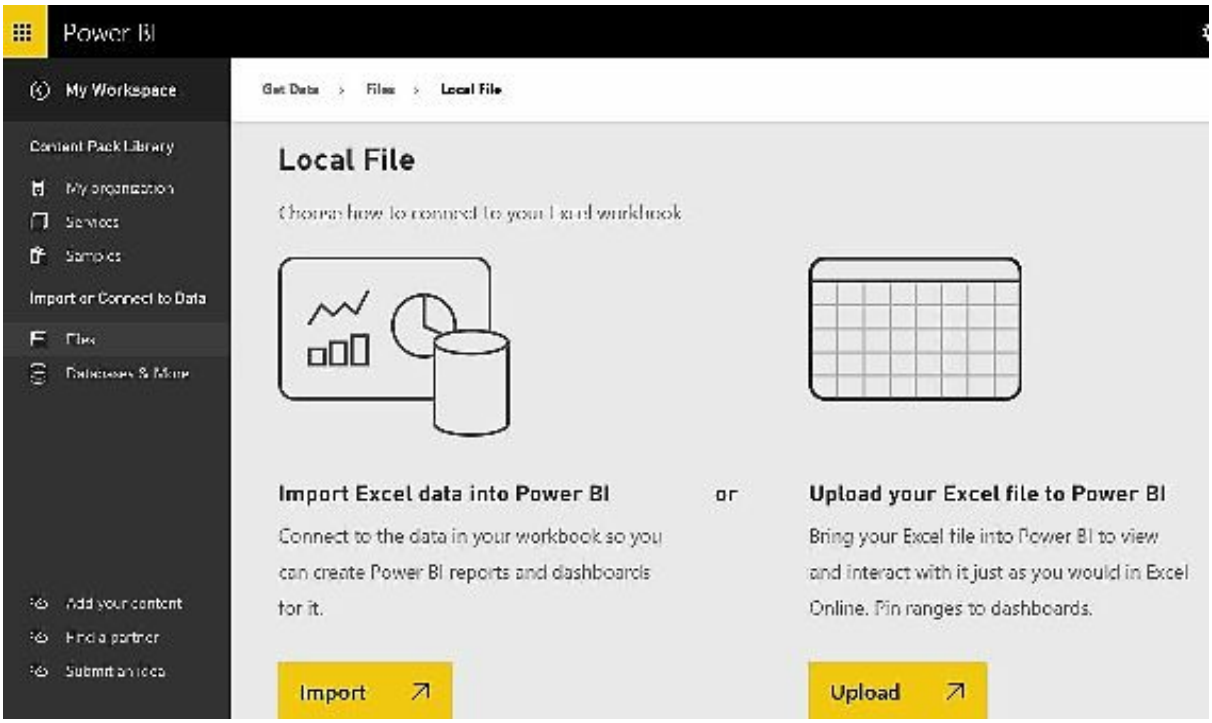
3. Choose where the Excel file is located. In my case, I selected "Local File" because the file is stored in my computer.



4. Select the required Excel file either by double clicking on it or clicking once and clicking "Open".



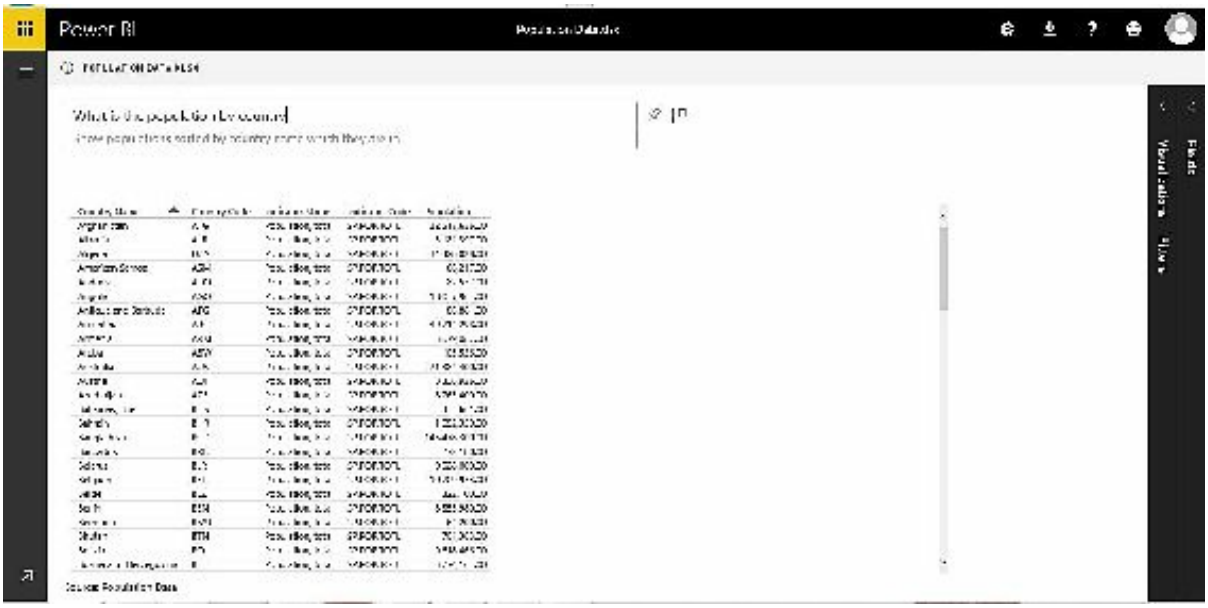
5. Choose whether to import the data into Power BI or upload the Excel file into the service. In my case, I selected the import option.

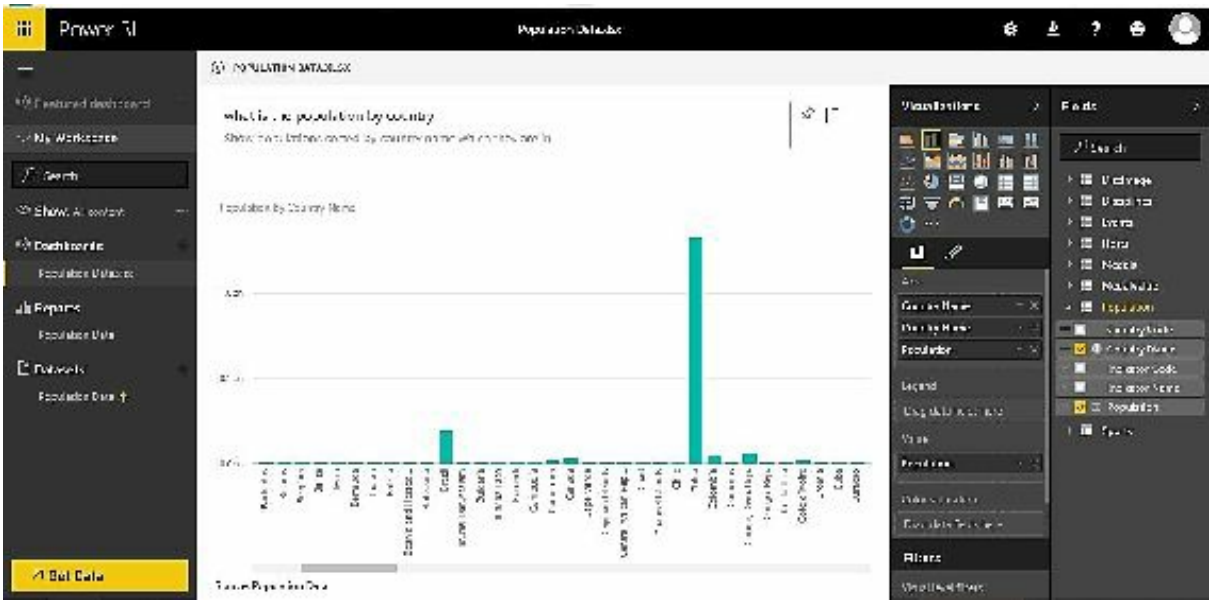


6. That's it. Your dataset is ready.

7. You can choose to view the dataset by clicking "View dataset" or you can start asking questions about your data right away. In my case, I typed the question "What is the population by country?" The image below came up but it didn't look exactly like I wanted. I went ahead to choose the fields I wanted to see from the results and picked a visualization type. (Both options are available on the

right). The second picture below was the final result.





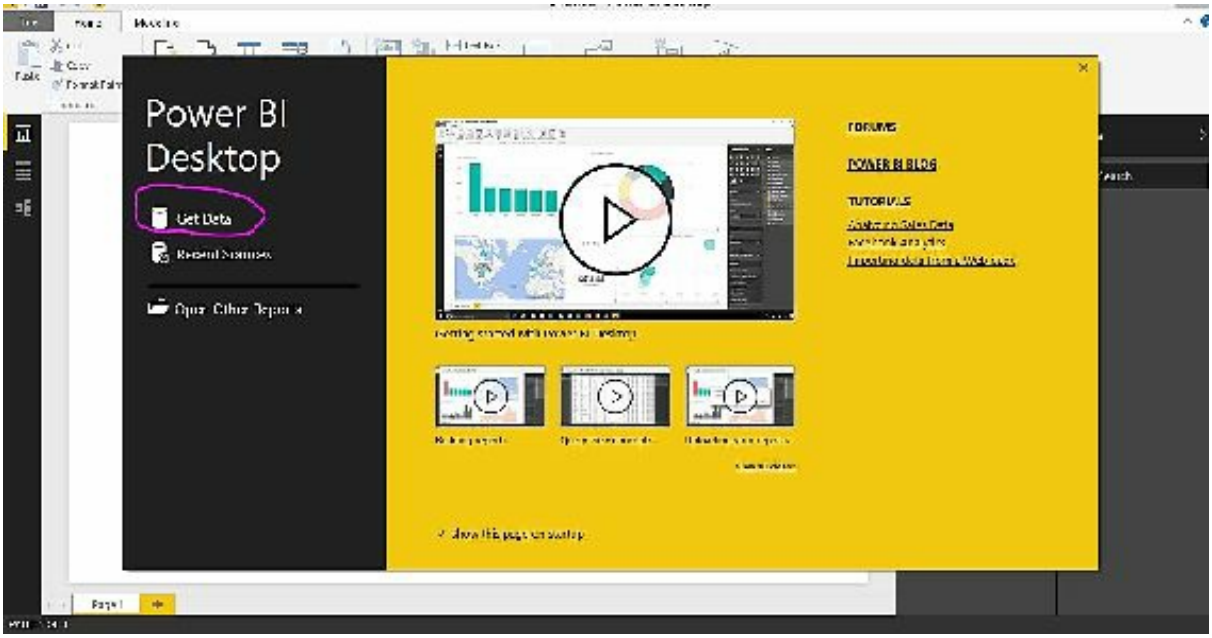
You’re all done. You have successfully connected to an Excel file using the Power BI Service.

GETTING DATA FROM A SQL SERVER DATABASE

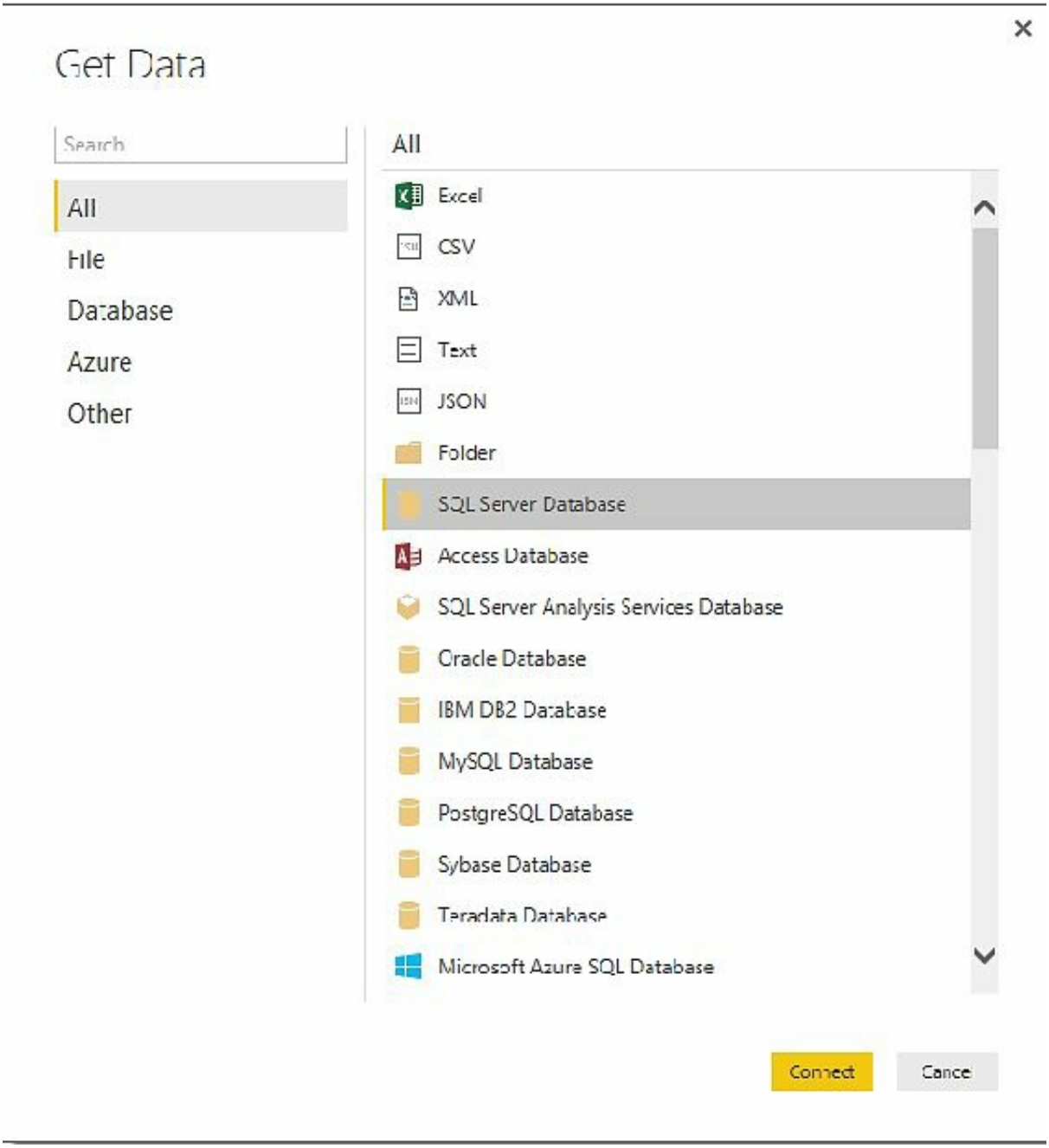
USING POWER BI DESKTOP

To get data from a SQL Server database using Power BI Desktop, follow the steps below.

1. Launch the Power BI Desktop application and select “Get Data”.

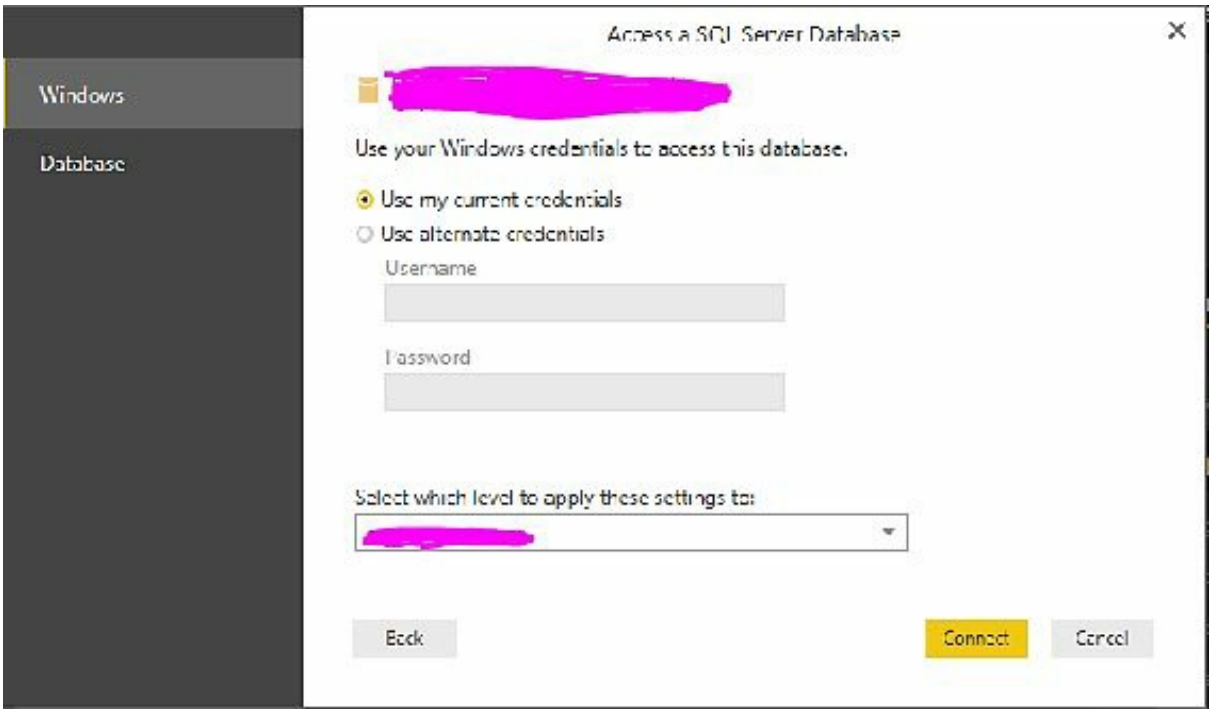


2. Select “SQL Server Database” from the list and click “Connect”.

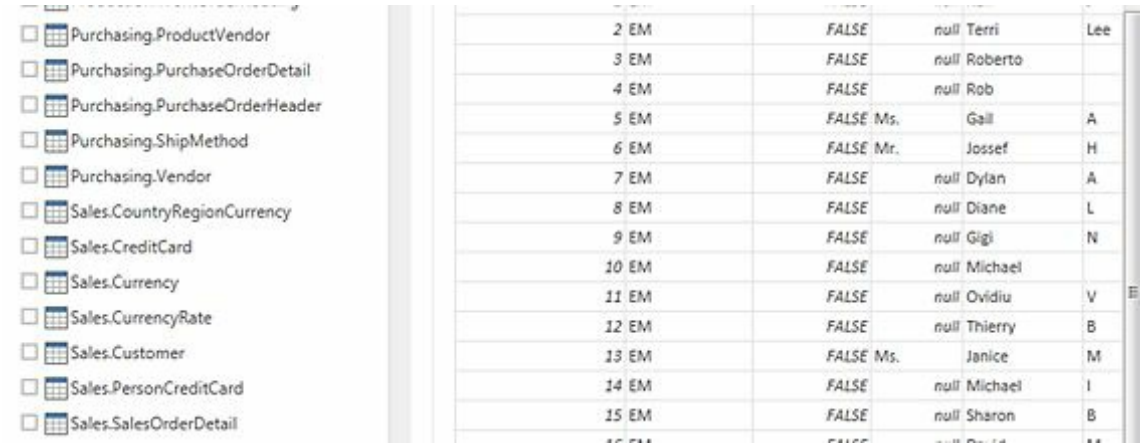


3. Input the SQL Server instance you want to connect to and optionally, the database name. Click “Ok” once done.

4. Input the credentials to connect to the database and click “Connect”.

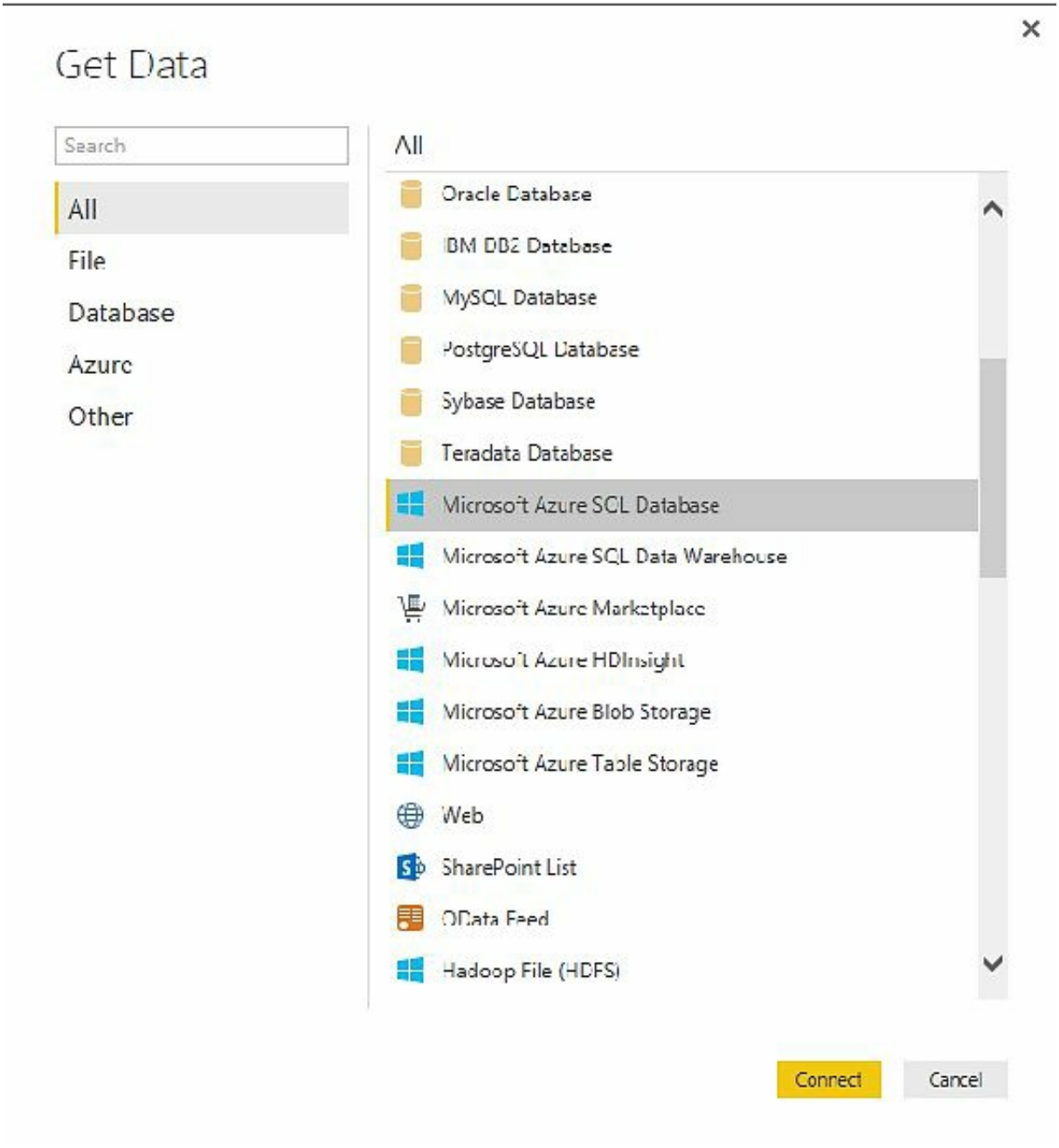


5. Once a connection is established, a preview of the tables in the database is displayed in Power BI. Select the tables that contain data needed for your report and click “Load”. The data is loaded into Power BI and you can begin to create your reports from it.

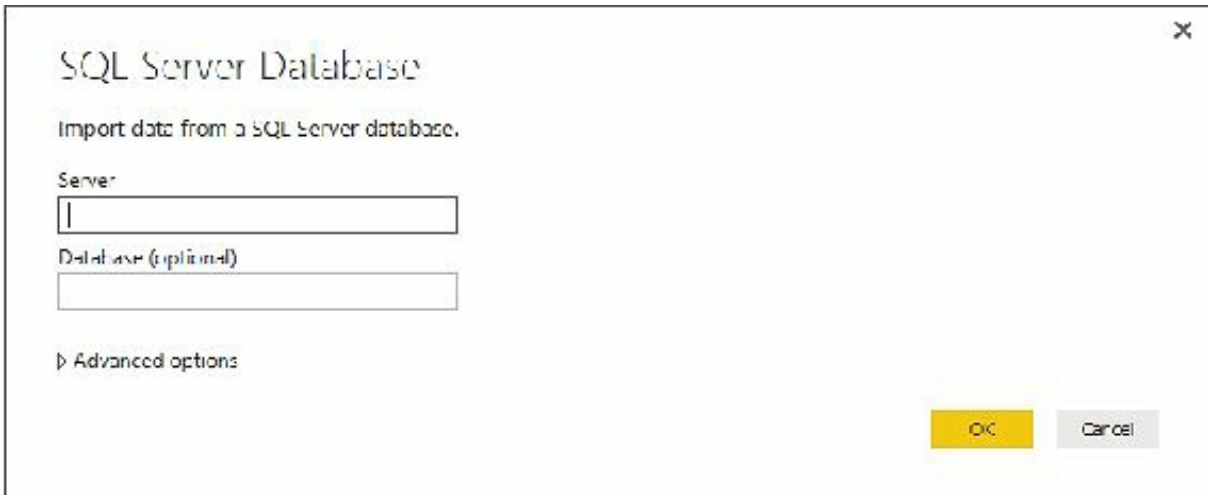


GETTING DATA FROM AN AZURE SQL DATABASE

1. Launch the Power BI Desktop application and click “Get Data”. Select “Microsoft Azure SQL Database” from the list and click “Connect”.



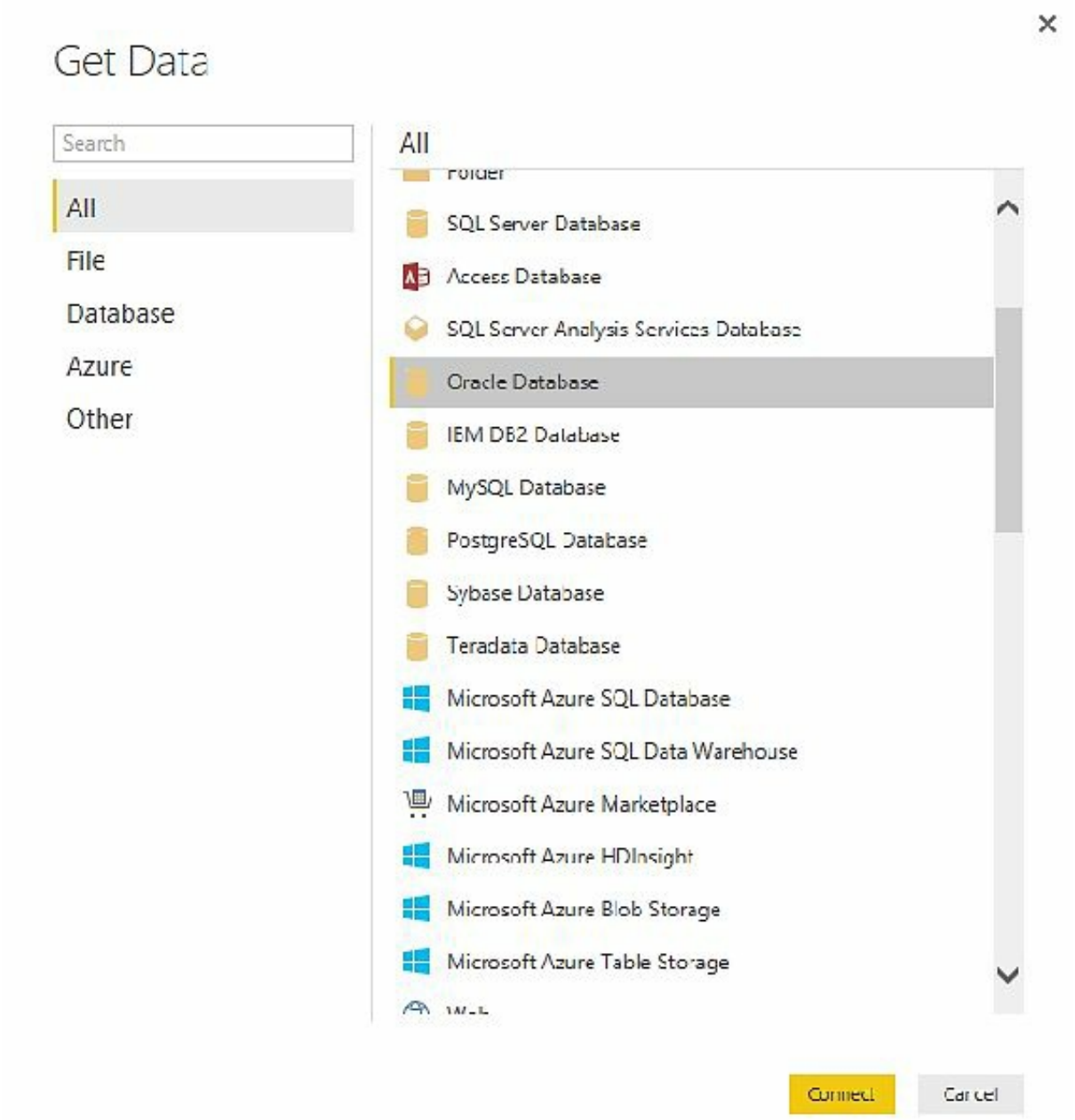
2. Input the SQL Server connection details and click “OK”.



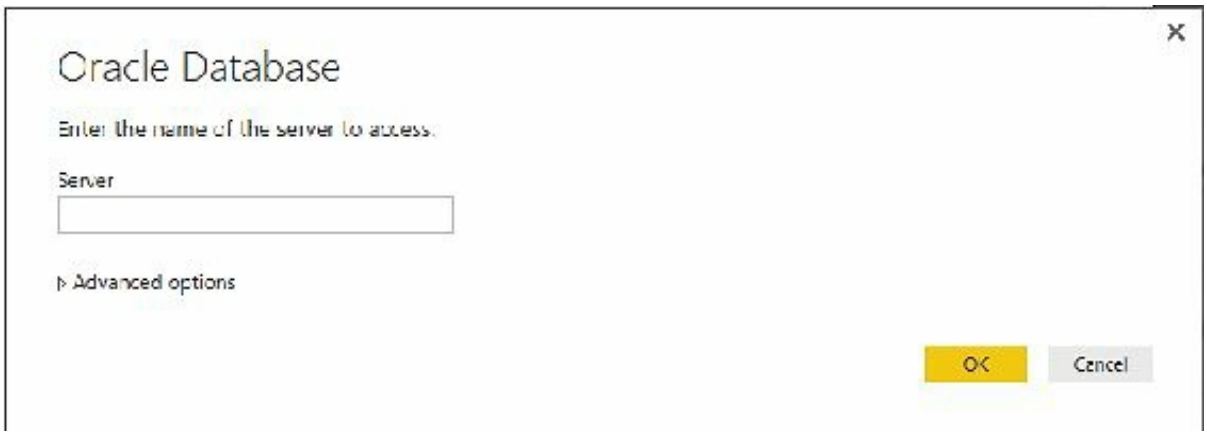
3. Select the tables you need data from and load them into the application. The data can then be used to create reports.

GETTING DATA FROM AN ORACLE DATABASE

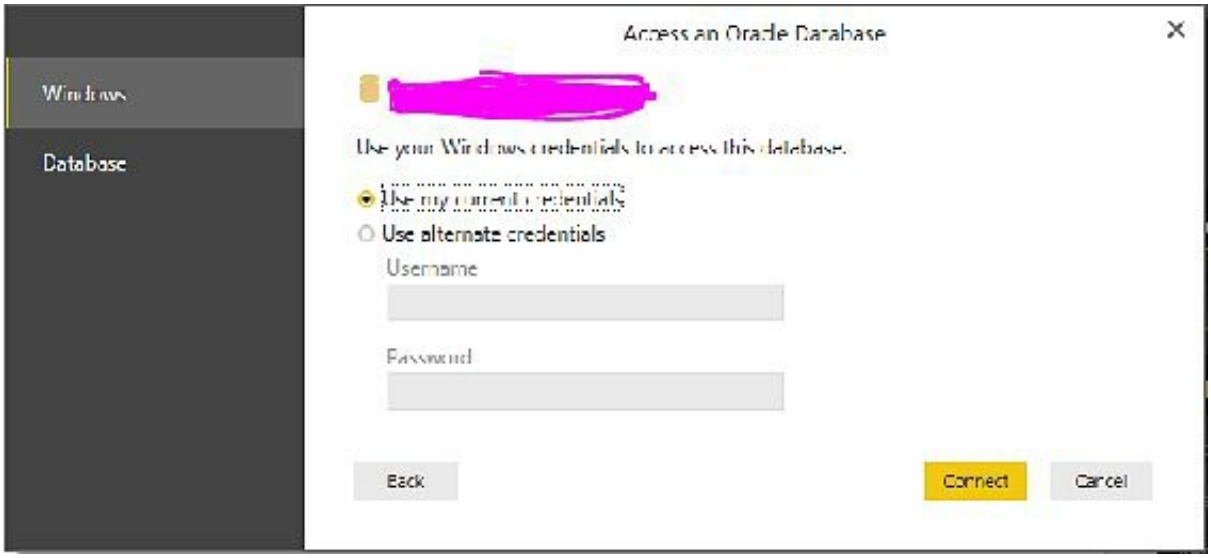
1. From the Power BI Desktop application, click “Get Data”. Select “Oracle Database” from the list and click “Connect”.



2. Enter the name of the server to connect to and click “Ok”.



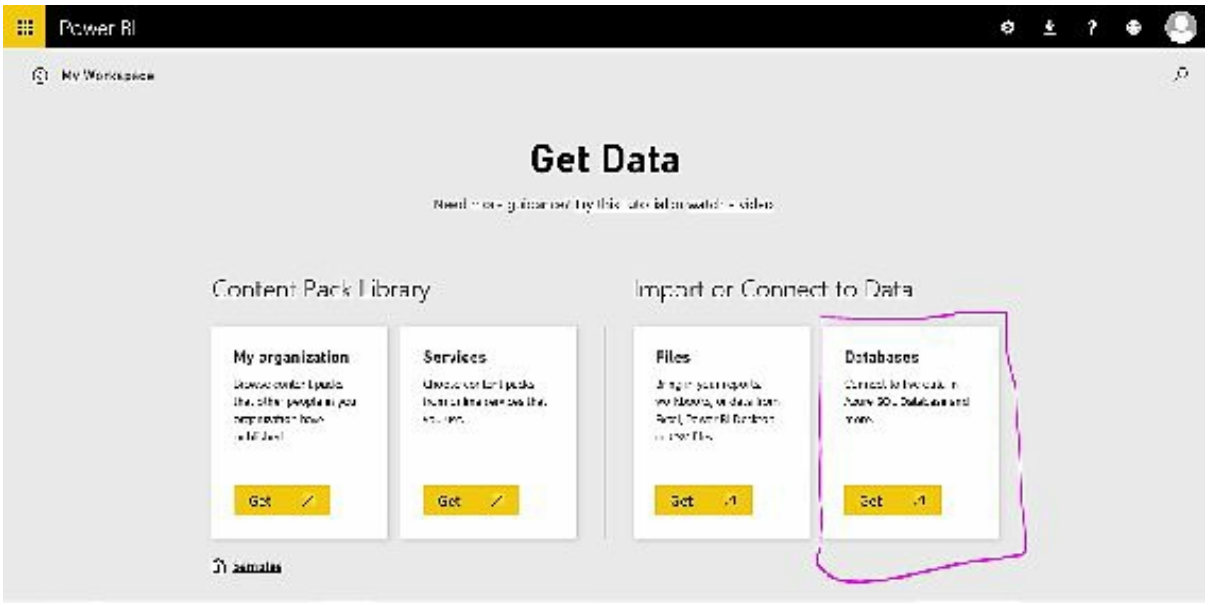
3. Input the appropriate credentials and click “Connect”.



USING THE POWER BI ONLINE SERVICE

To get data from a database using the Power BI online service, follow the steps below.

1. Login to the Power BI online service with your username and password.
2. From the "Get Data" screen, click on "Get" in the "Databases" subsection of the "Import or Connect to Data" section.



3. You can choose either "Azure SQL Database", "Azure SQL Data Warehouse", "SQL Server Analysis Services" (for on-premises SQL server) or "Spark on Azure HDInsight".

Please note that when connecting to the SQL Server Analysis Server instance

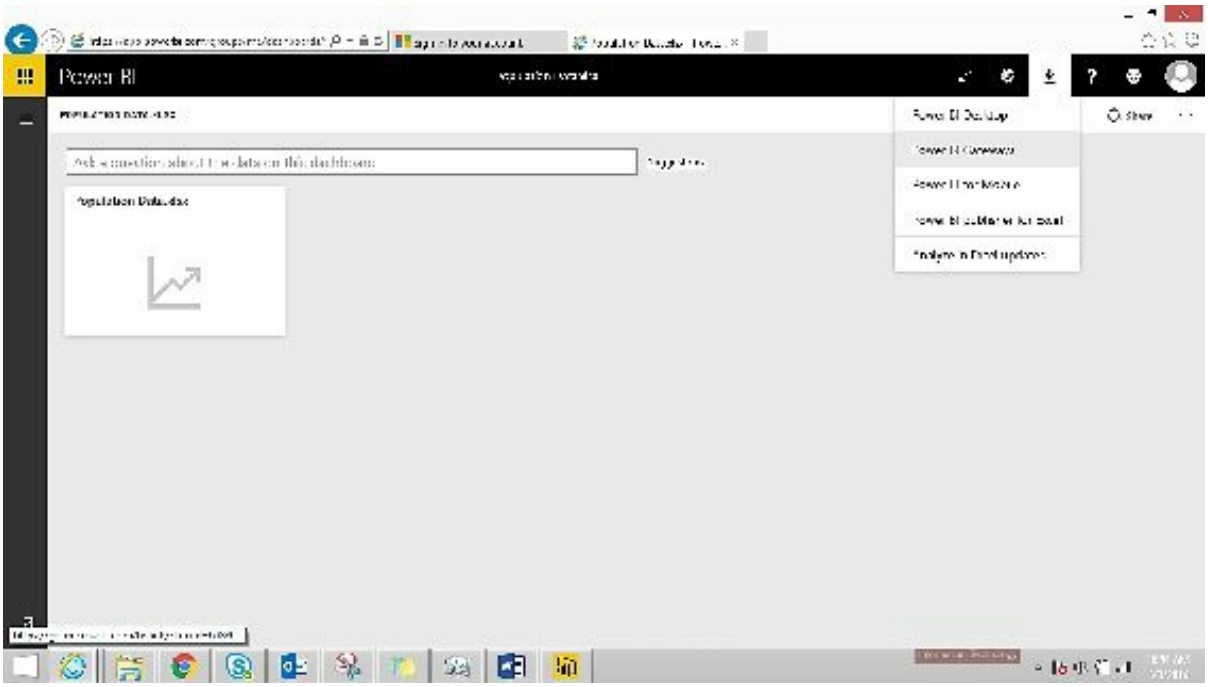
on-premises, you will require a Power BI Gateway.

4. Select which ever option is appropriate in your case and click "Connect".

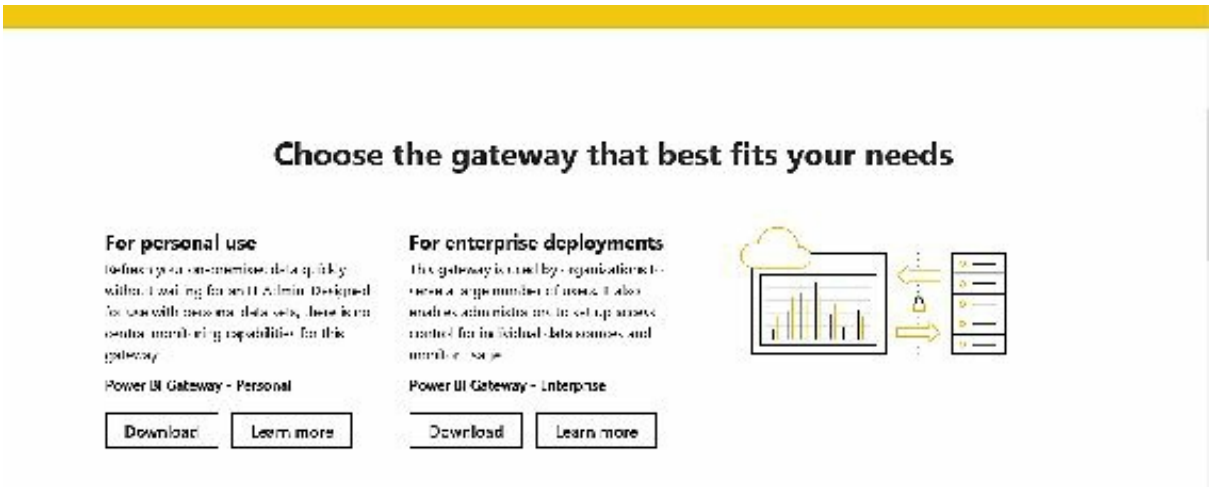
INSTALLING THE POWER BI GATEWAY

If you need to install the Power BI Gateway on your on-premises server, follow the steps below. This gateway can be installed on the SQL server itself, or a different server that can connect to the SQL server.

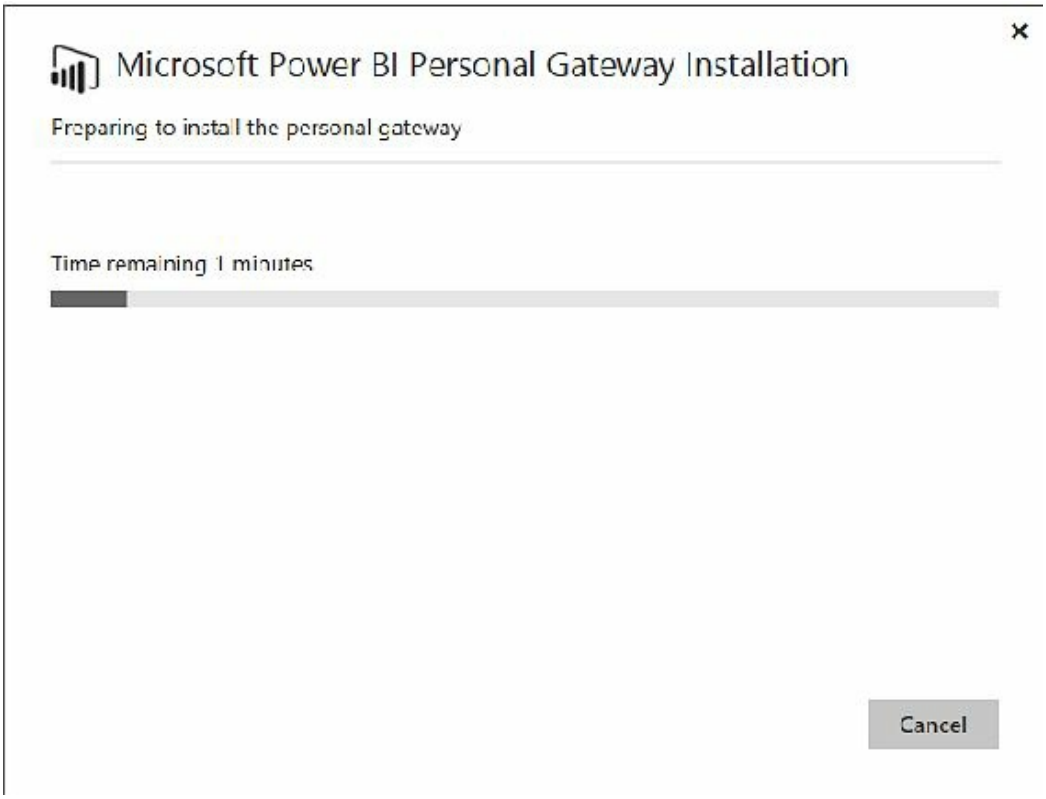
1. Login to the Power BI online service with your username and password.
2. Click on the download icon and select “Power BI Gateways”.



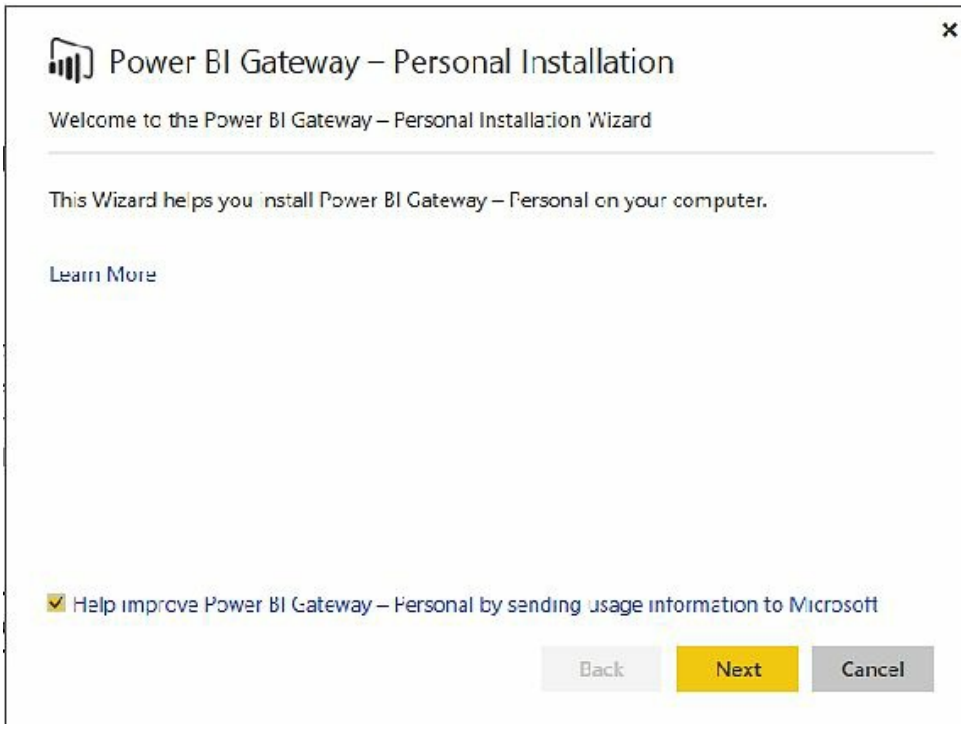
3. Choose the gateway that best suits your needs (either ‘personal’ or ‘for enterprise use’) by clicking “Download” under the appropriate option.

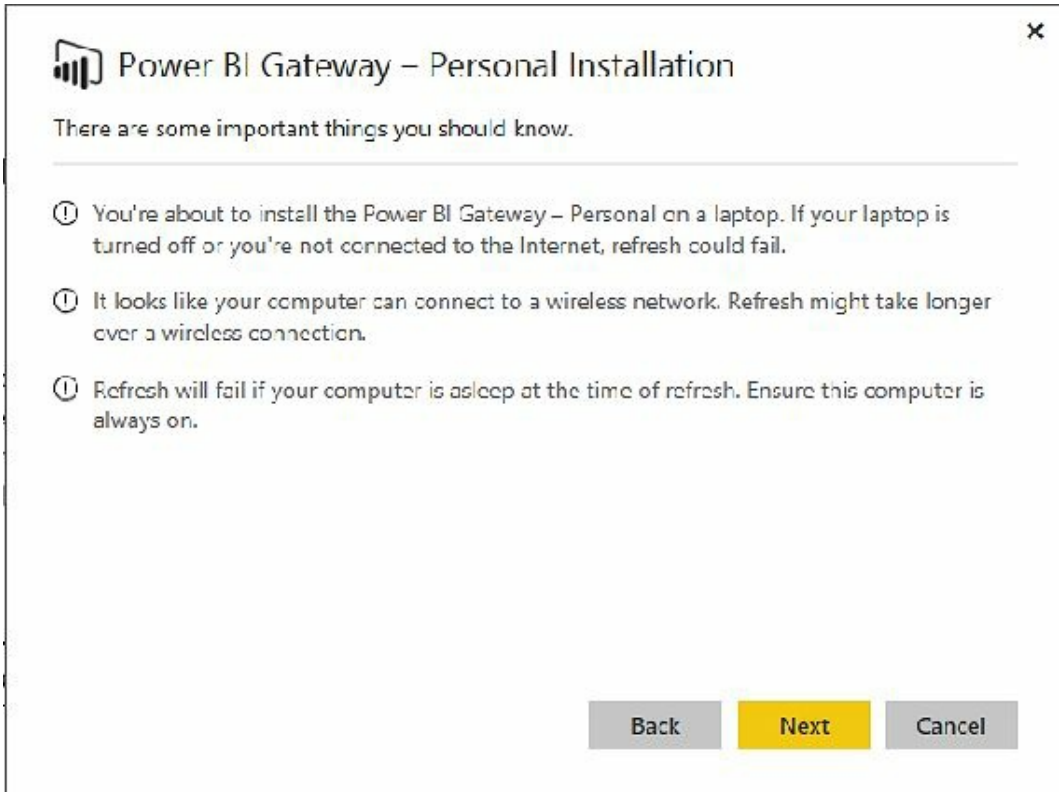


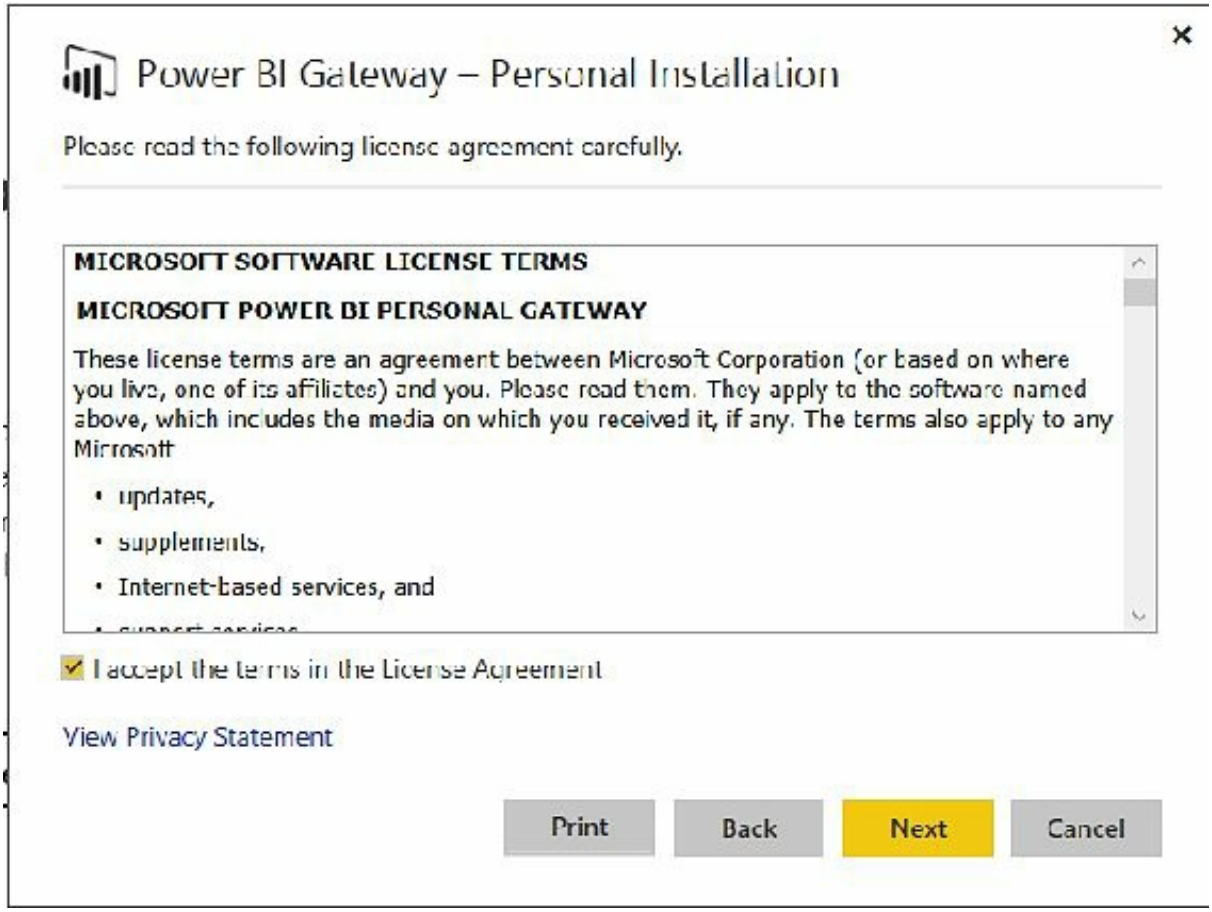
4. Launch the installer from the downloaded package.

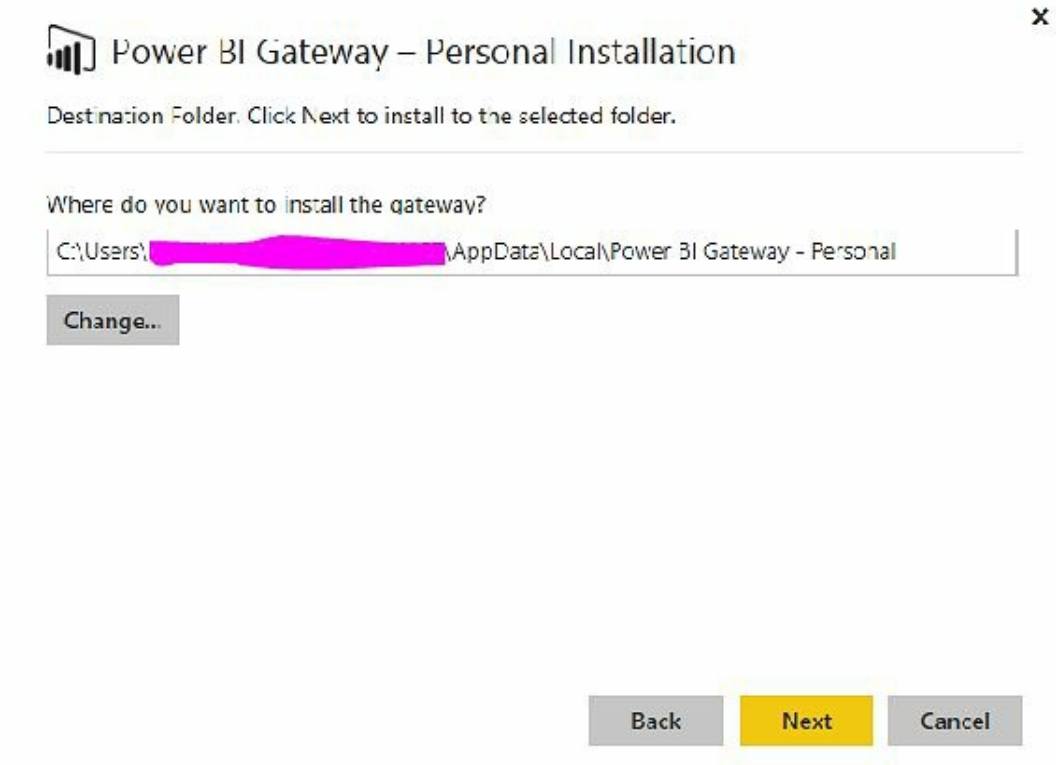


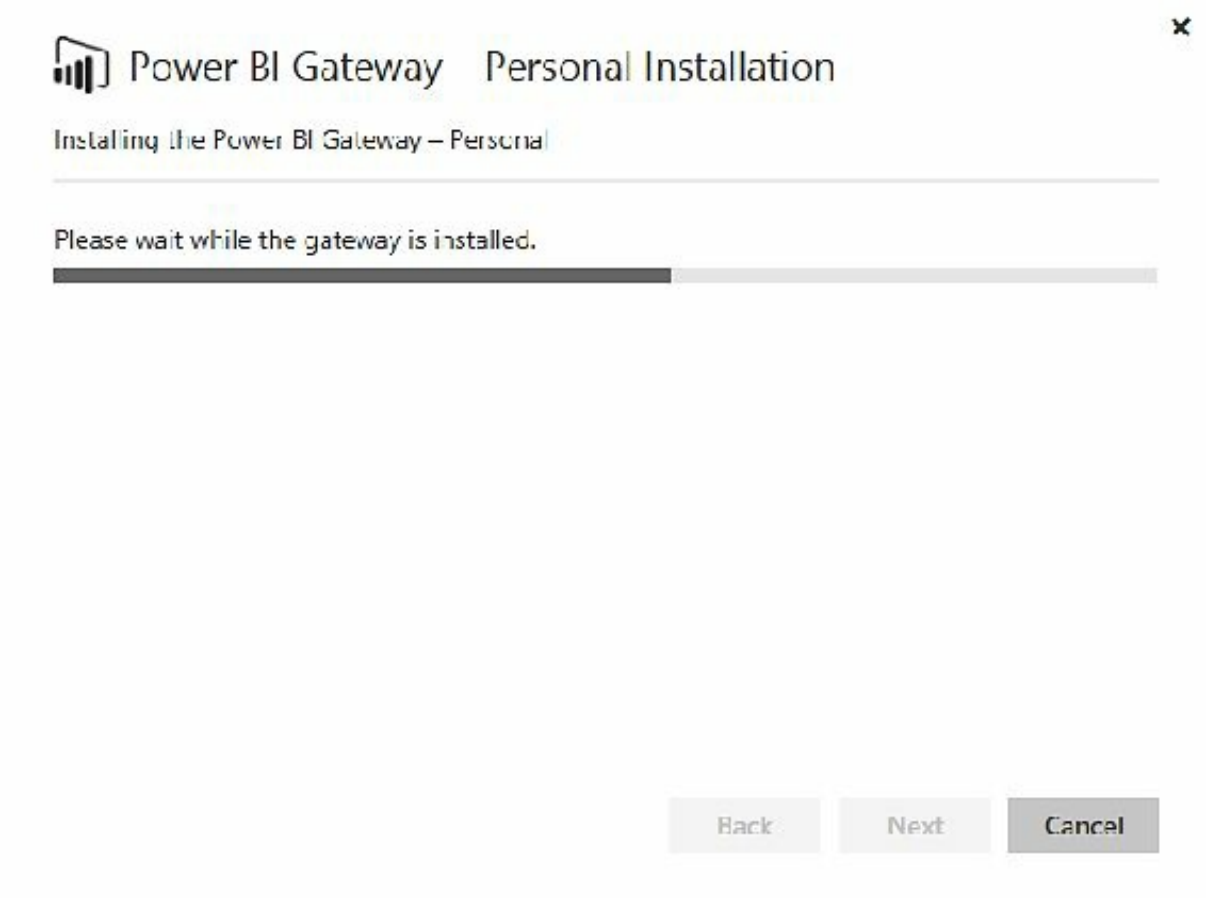
5. Follow the wizard to complete the installation.


Power BI Gateway – Personal Installation
Welcome to the Power BI Gateway – Personal Installation Wizard
This Wizard helps you install Power BI Gateway – Personal on your computer.
Learn More
Help improve Power BI Gateway – Personal by sending usage information to Microsoft
Back
Next
Cancel


Power BI Gateway – Personal Installation
There are some important things you should know.
You're about to install the Power BI Gateway – Personal on a laptop. If your laptop is turned off or you're not connected to the Internet, refresh could fail.
It looks like your computer can connect to a wireless network. Refresh might take longer over a wireless connection.
Refresh will fail if your computer is asleep at the time of refresh. Ensure this computer is always on.
Back
Next
Cancel


Power BI Gateway – Personal Installation
Please read the following license agreement carefully.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT POWER BI PERSONAL GATEWAY
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
• updates,
• supplements,
• Internet-based services, and
I accept the terms in the License Agreement
View Privacy Statement
Print
Back
Next
Cancel


Power BI Gateway – Personal Installation
Destination Folder. Click Next to install to the selected folder.
Where do you want to install the gateway?
C:\Users\[redacted]\AppData\Local\Power BI Gateway - Personal
Change...
Back
Next
Cancel



For a feature comparison between the Personal and Enterprise editions of the Power BI Gateway, see the table below.

PERSONAL Learn more	ENTERPRISE Learn more	
Features		
Import data and set up scheduled refresh	•	Coming soon
Run as an app for users who aren't administrators on the computer	•	

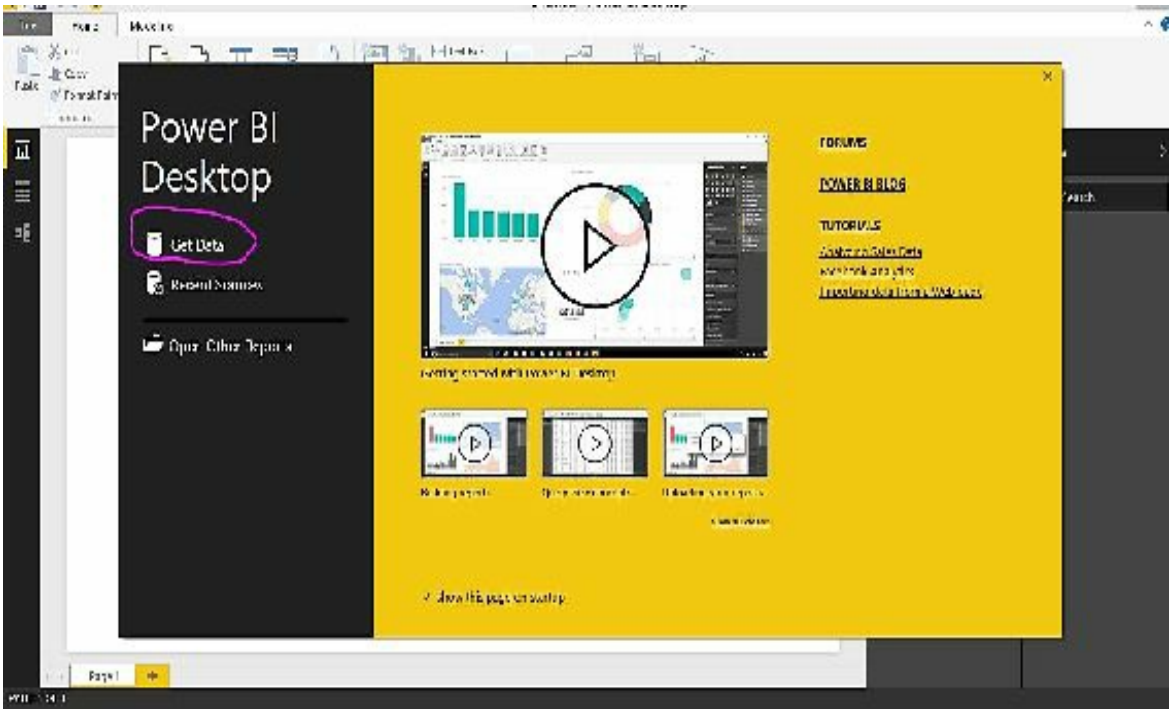
Run as a single user with your credentials	•	
Serves multiple users with access control per data source		•
Support for DirectQuery to SQL Server		•
Support for a live connection to Analysis Services		•
Monitoring and auditing for gateway and data sources		Coming soon

GETTING ONLINE DATA

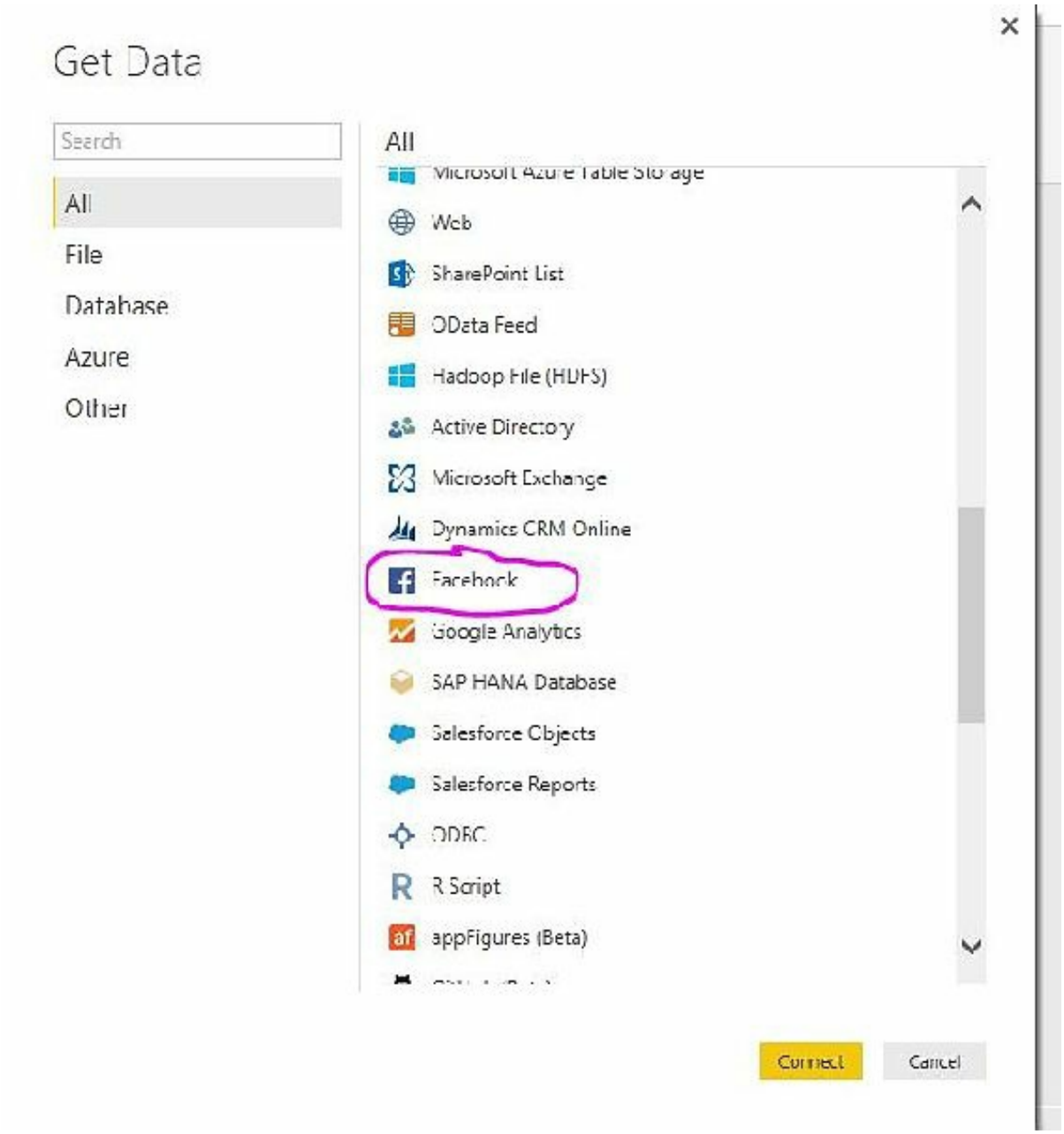
GETTING DATA FROM FACEBOOK

This section describes how to get data from Facebook for analysis in Power BI.

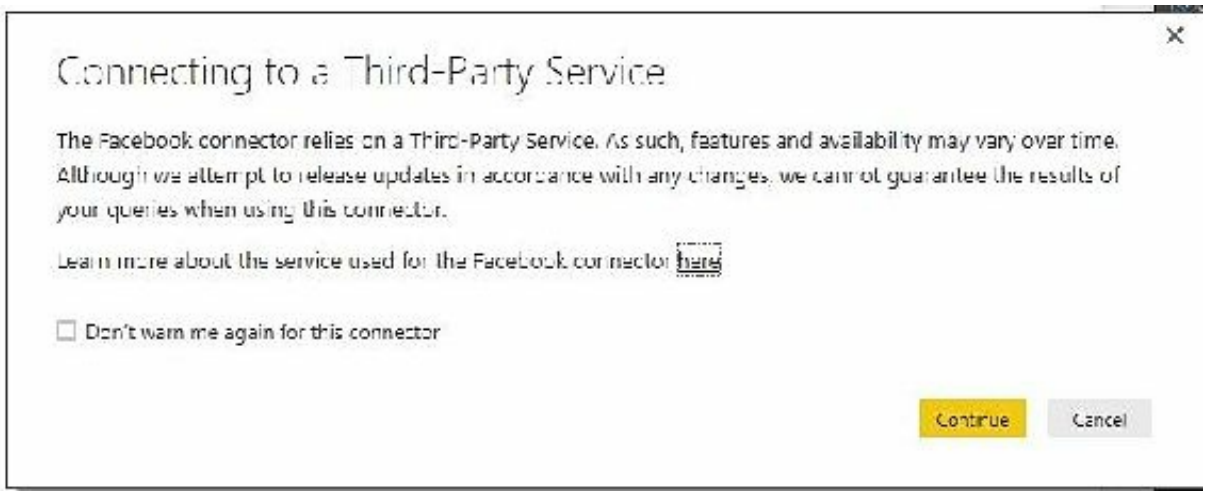
1. Launch the Power BI Desktop application and click “Get Data”.



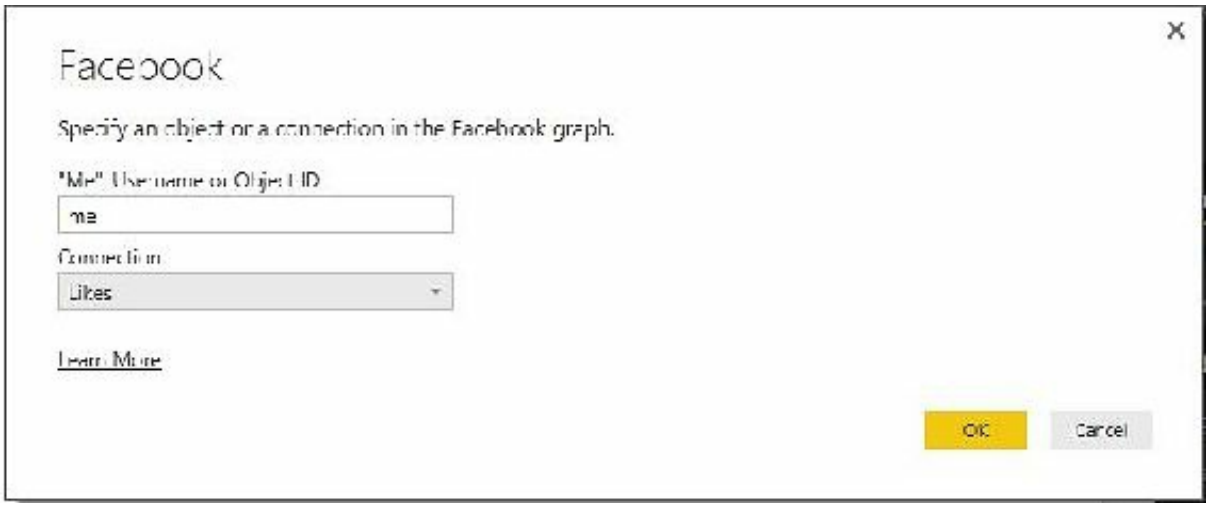
2. Select “Facebook” from the list and click “Connect”.



3. Read the warning and click “Continue”.

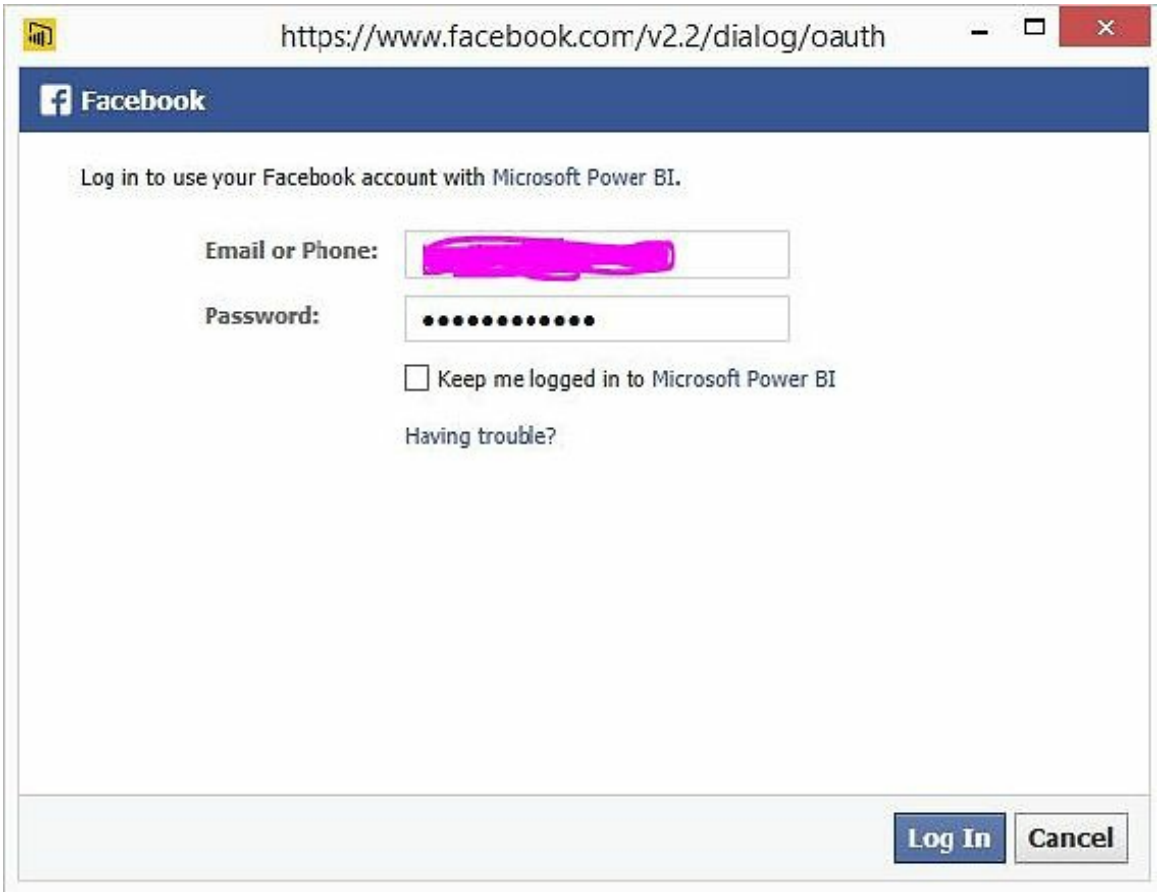


4. Specify an object and connection in the Facebook graph. If the page you want to connect to is your Facebook account, then leave the first textbox as “me”. If it is a Facebook page you manage, type the page name in the textbox. For the connection, choose what you are interested in from the list of options. In this case, I chose “Likes”.

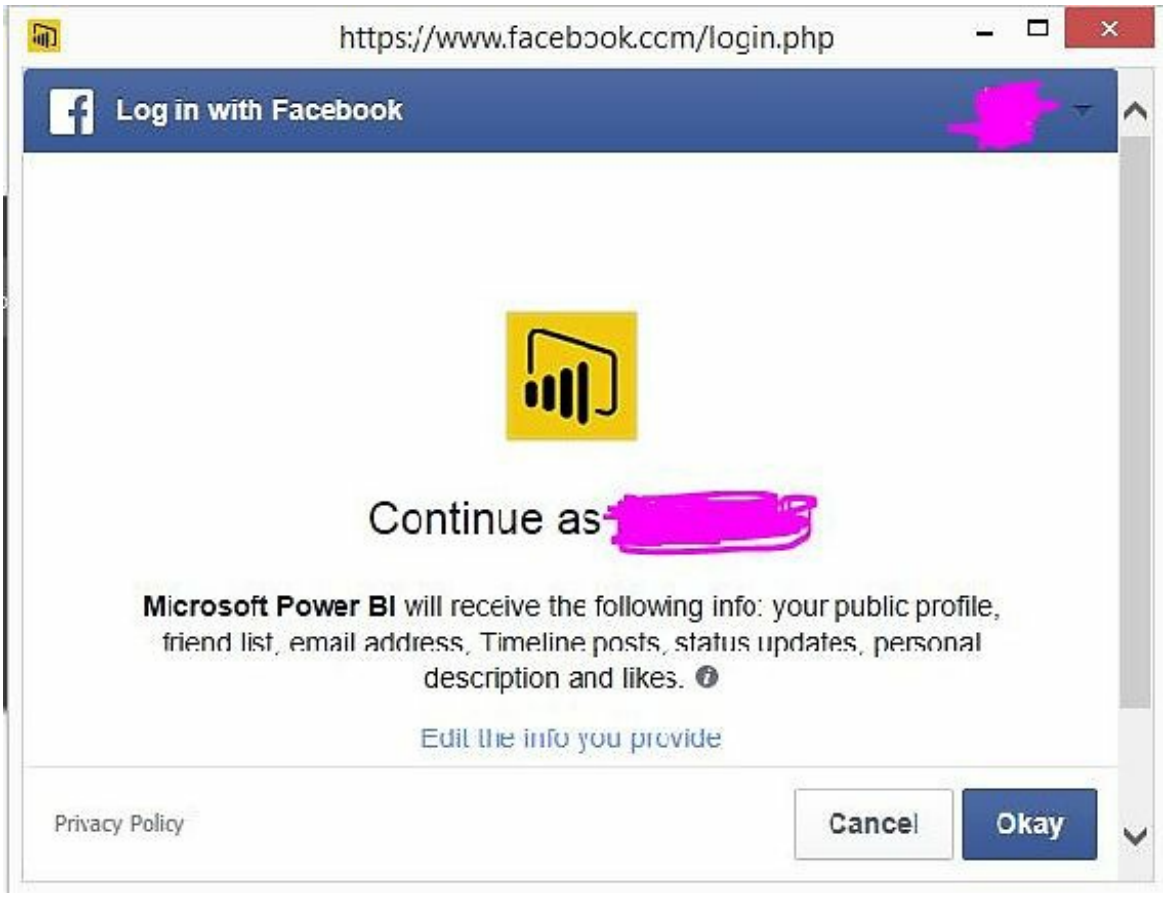


5. Click “Sign in” to access your Facebook page.

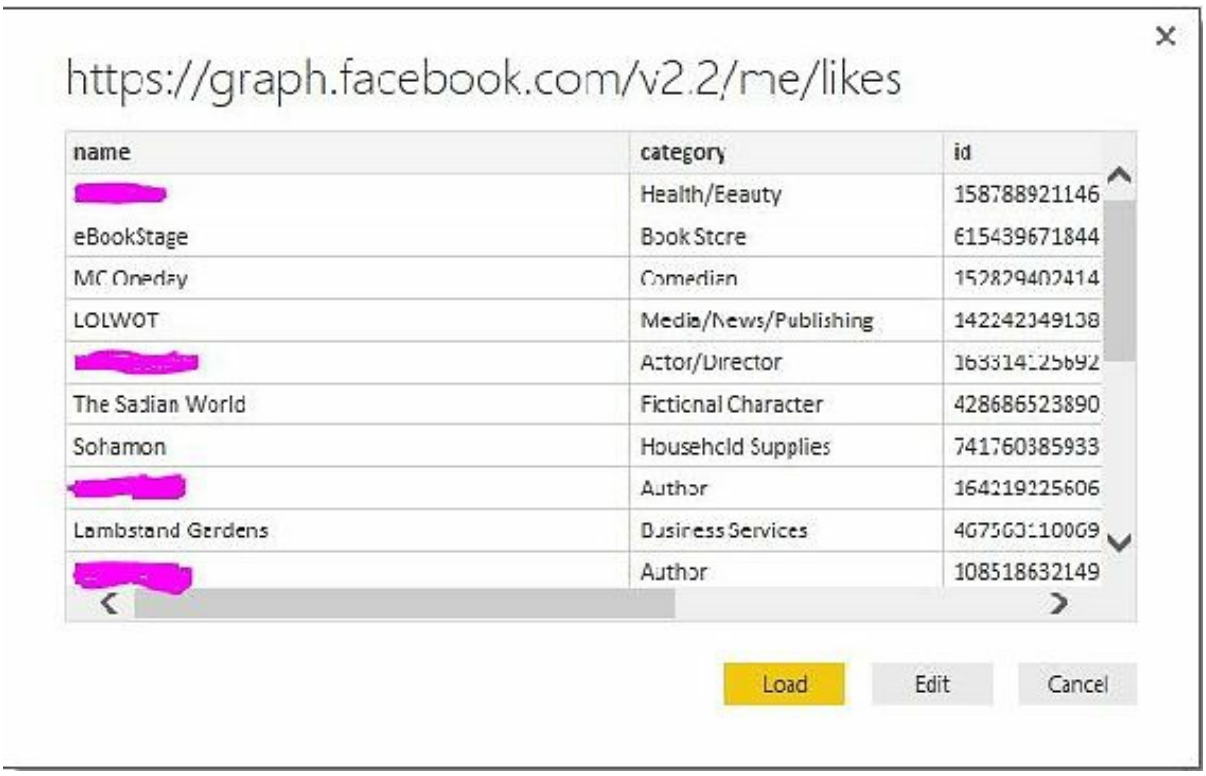
6. Input your Facebook username and password, and click “Log In”.



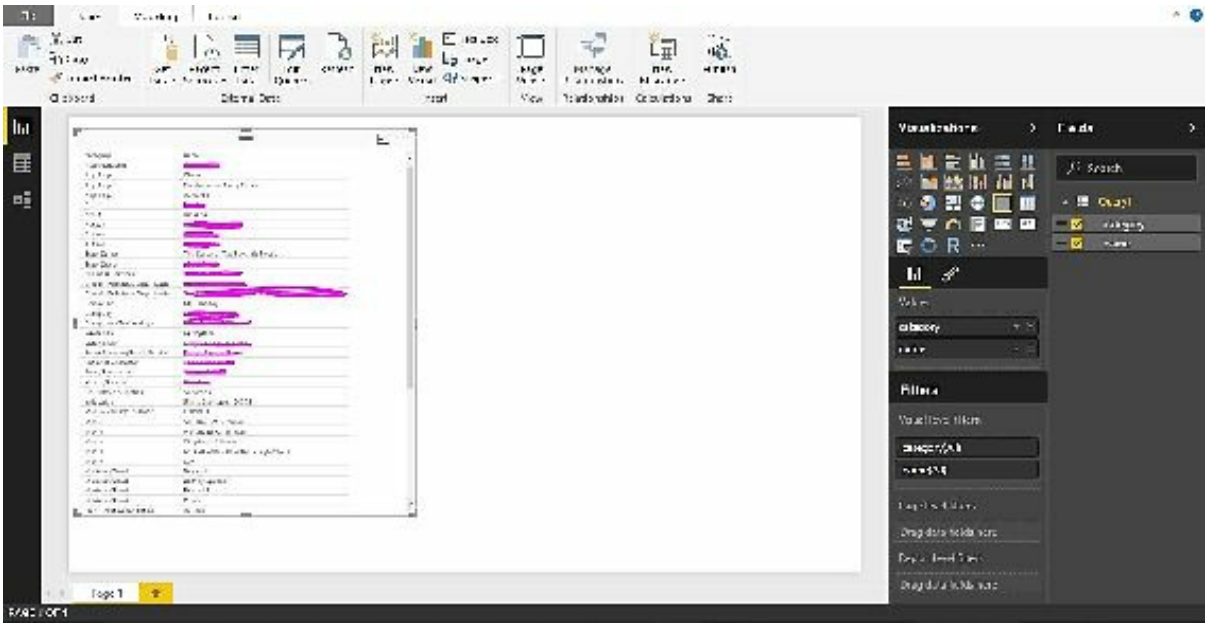
7. Click “Okay” to continue as yourself.



8. A preview of the data appears next. Click “Load” to import the data as-is into Power BI or “Edit” to streamline the data. In this case, I chose “Edit” to remove unnecessary columns before loading the data into the application.

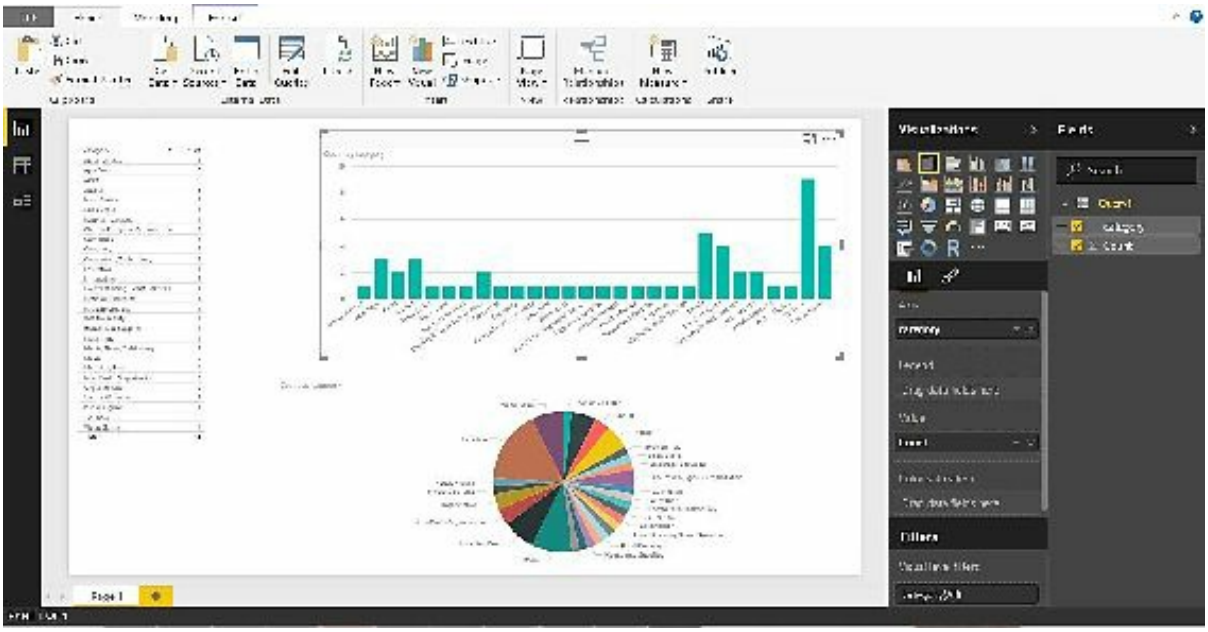


9. The data gets loaded into Power BI from where you can mash it up to create the visualizations you want.

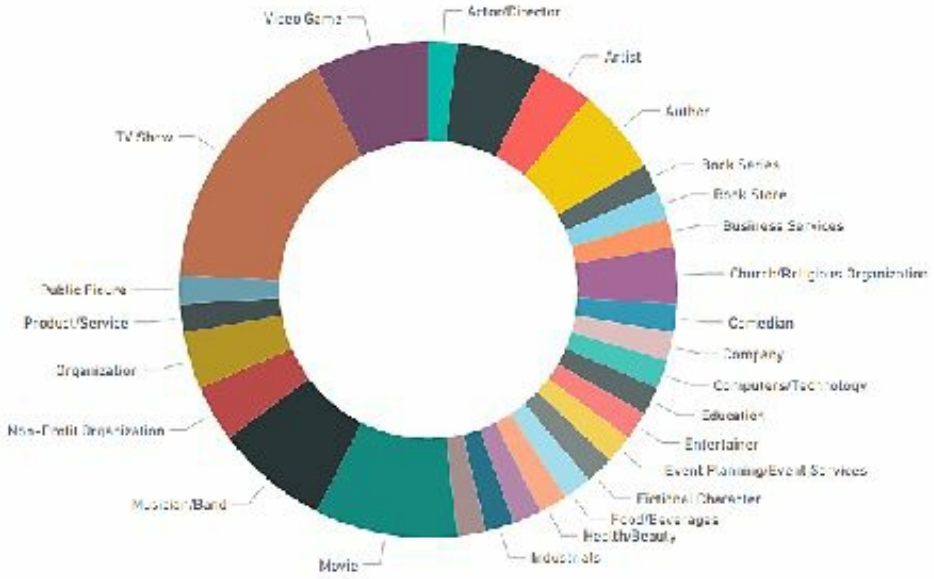


10. Apply the appropriate visualizations for the information you are

interested in. In this case, I was interested in knowing the category of things I like most on Facebook. It was interesting to see TV shows, Movies and Video games getting the most number of likes from me. Typical!



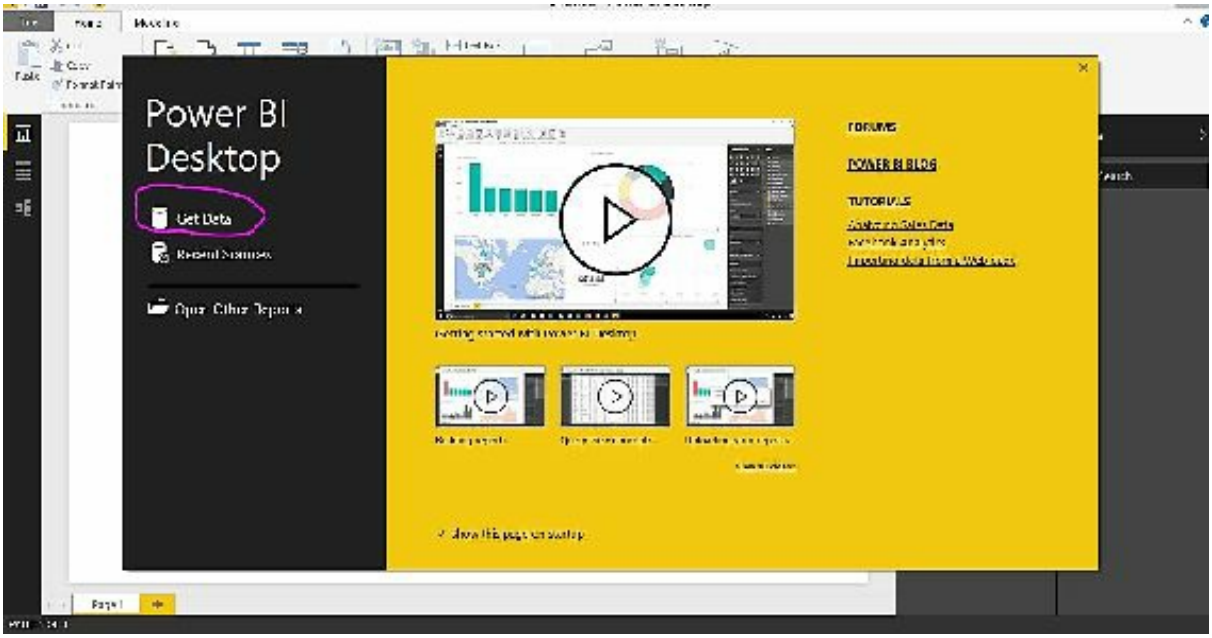
Back to Report | COUNT BY CATEGORY



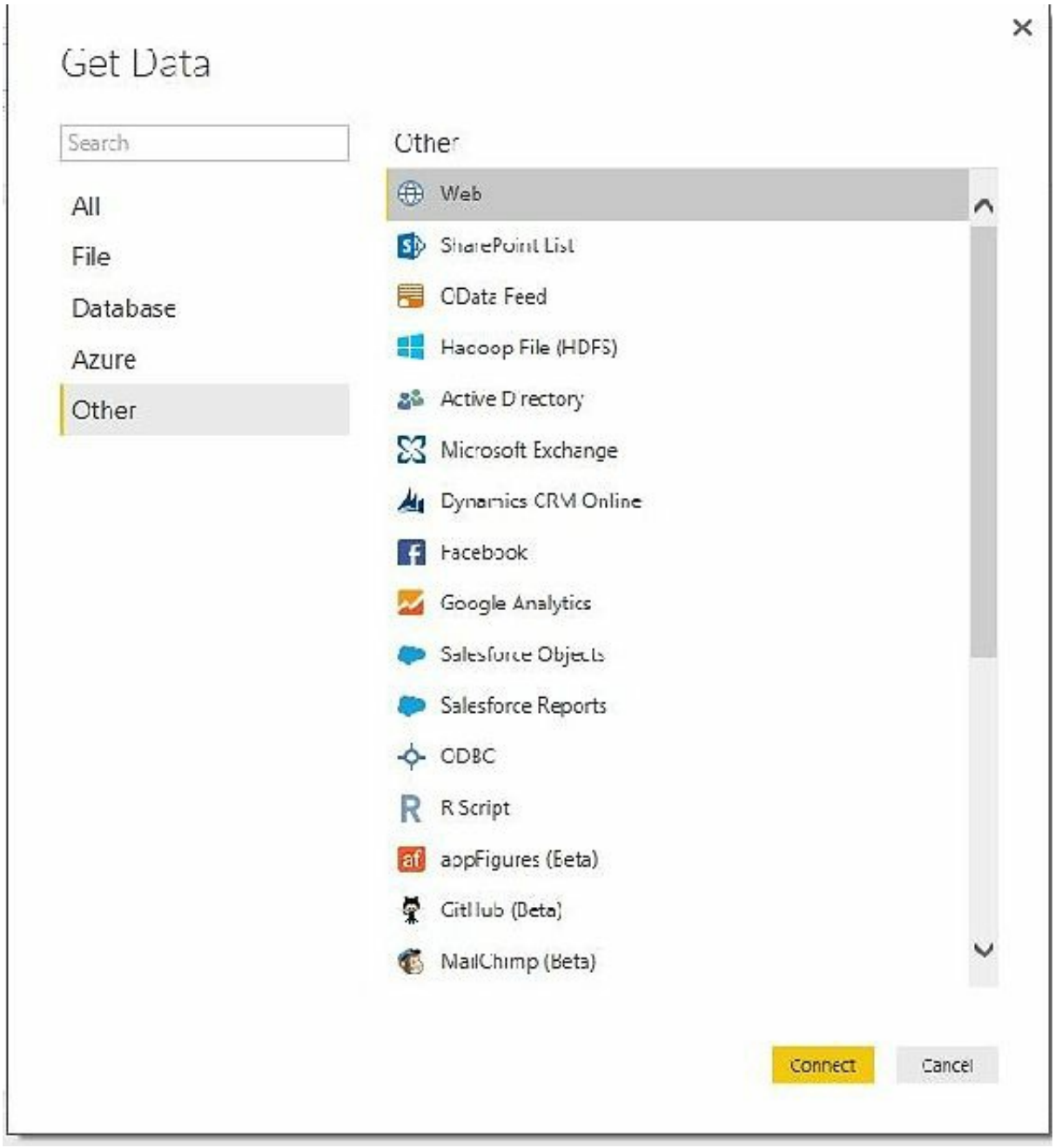
GETTING DATA FROM OTHER WEB SOURCES

Data contained in other web sources can be imported into Power BI and used in analysis. In this section, we will explore connecting to Wikipedia and importing some data into Power BI. To get started, follow the steps below.

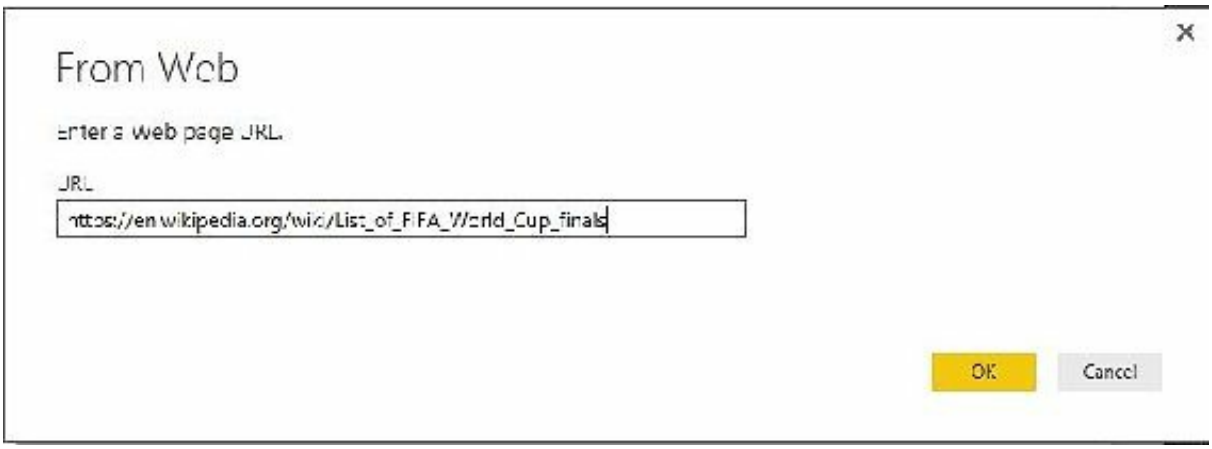
1. Launch the Power BI Desktop application and click “Get Data”.



2. Select “Web” from the list and click “Connect”.



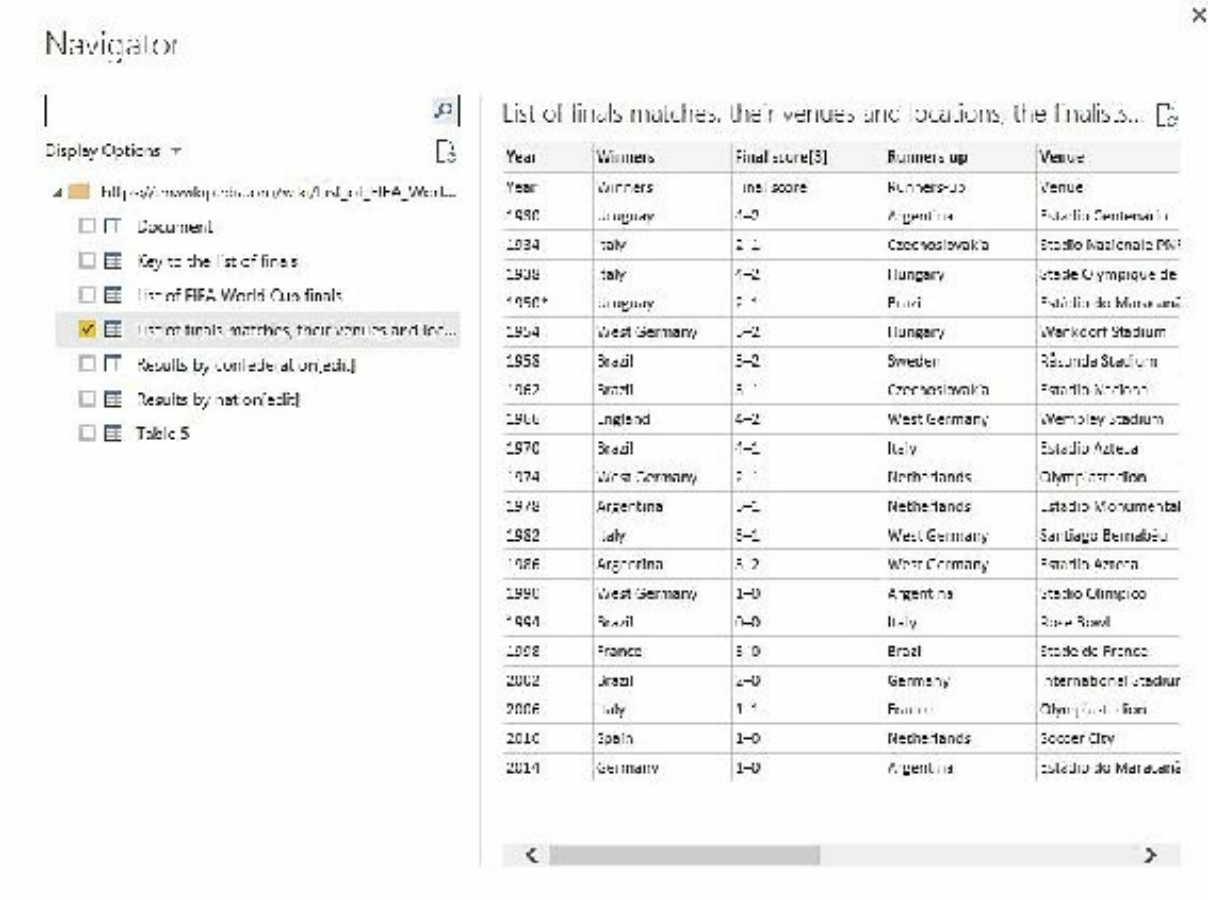
3. Enter the URL that contains the data you want to access.



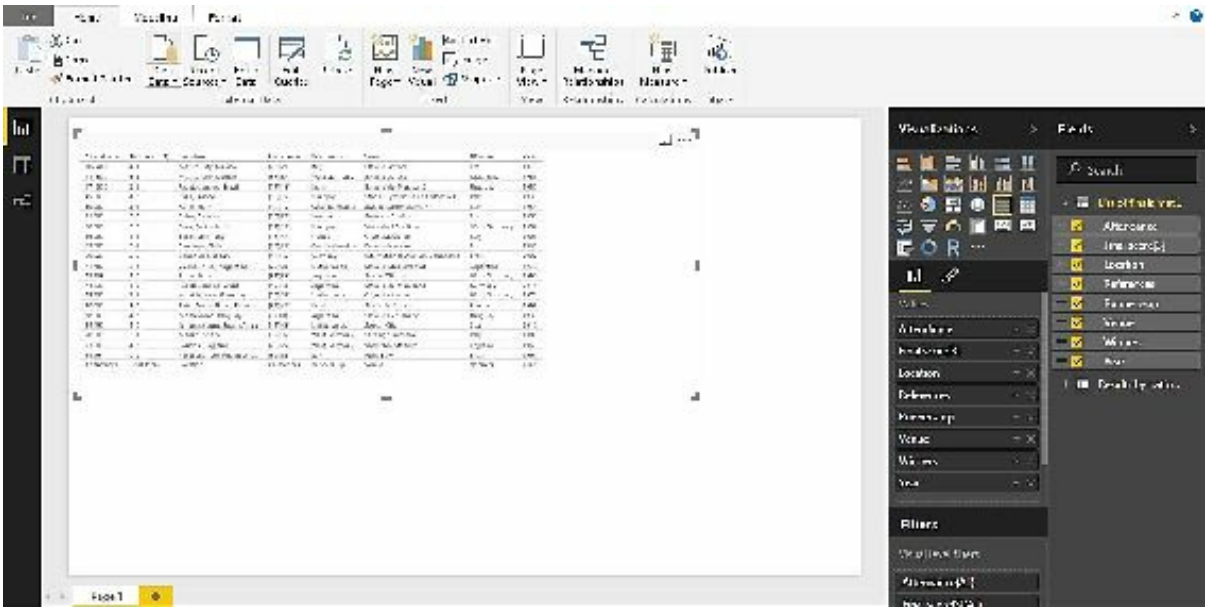
4. Select the type of authentication used for the URL. In this case, no authentication is required to access Wikipedia, hence the anonymous authentication type was selected. In the "Select which level to apply these settings to" drop down, pick the site level that hosts the data you are interested in. In this case, I selected the exact webpage within Wikipedia. Once done, click "Connect".

5. Click the checkmark beside the table containing the data you are interested in. A preview of the data appears on the right. Select all

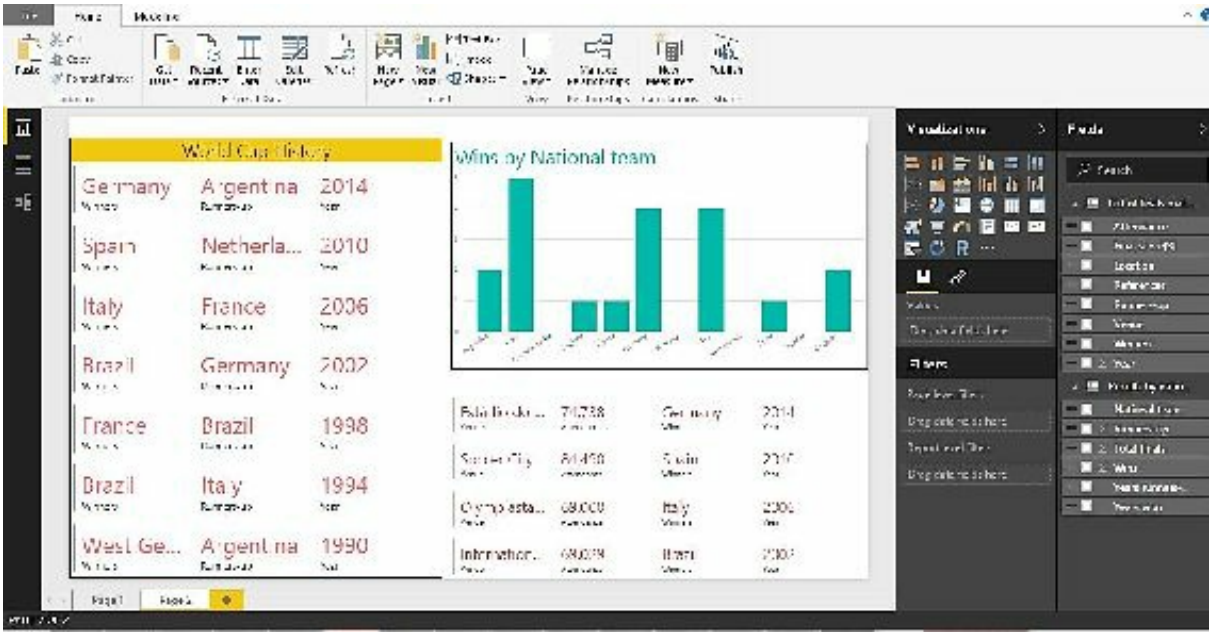
required tables and click “Load”.



6. The data is imported into Power BI.



7. Once in Power BI, you can shape it the way you want to create the right visualizations for your report.



World Cup History

Winners	Runners-up	Year
Germany	Argentina	2014
Spain	Netherla...	2010
Italy	France	2006
Brazil	Germany	2002
France	Brazil	1998
Brazil	Italy	1994
West Ge...	Argentina	1990

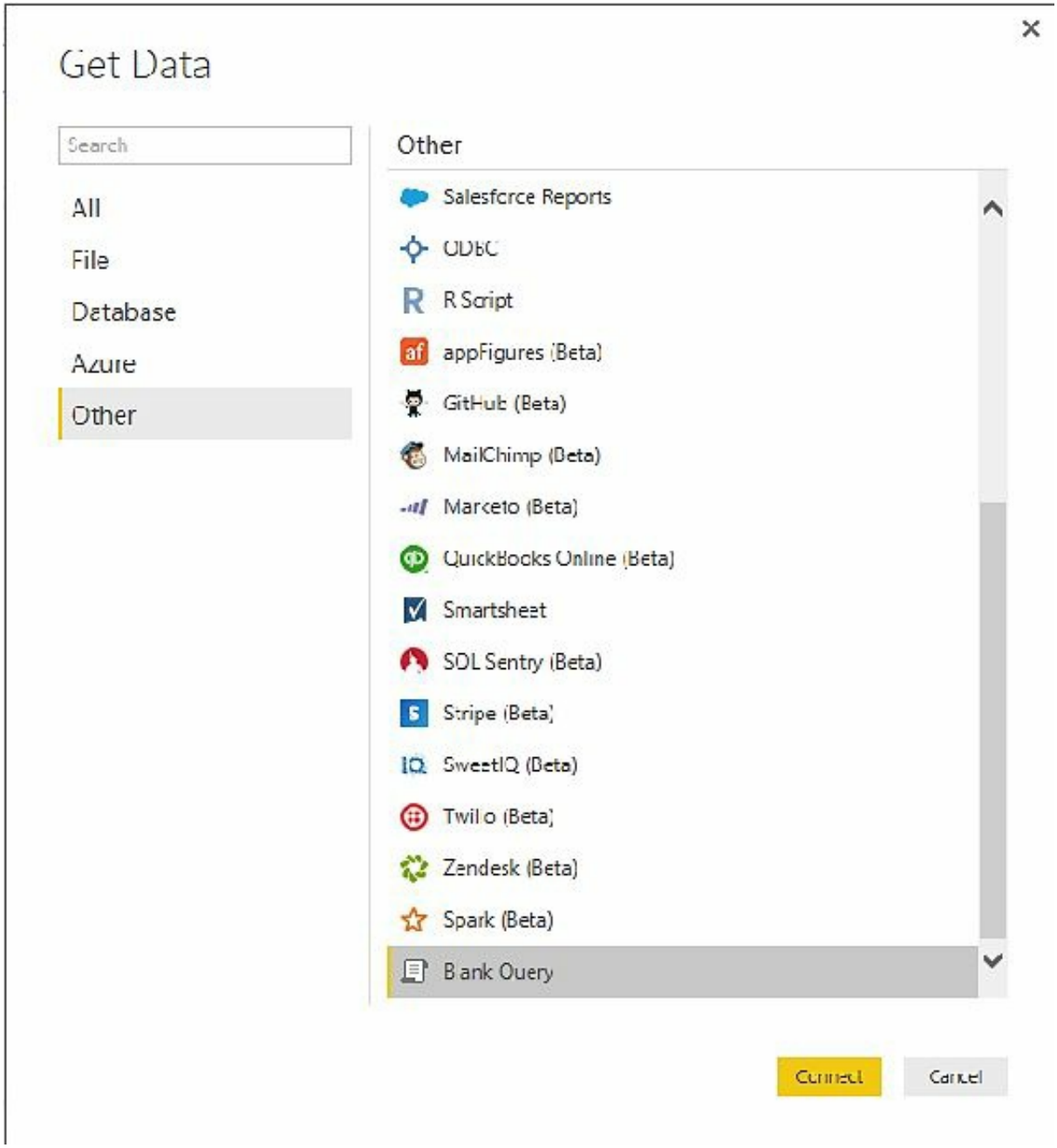
Wins by National team

Venue	Attendance	Winners	Year
Estádio do ...	74,738	Germany	2014
Soccer City	64,490	Spain	2010
Olympiasta...	69,000	Italy	2006
Internation...	69,029	Brazil	2002

GETTING DATA FROM TWITTER

At the time of writing this book, there was no connector to get data directly from Twitter. If you have the need to analyze Twitter data, you can find the steps written by Jeff Stokes in his blog here (https://azure.microsoft.com/en-gb/documentation/articles/stream-analytics-twitter-sentiment-analysis-trends/).

To wrap up, if you need to analyze data in Power BI, you will have to connect to the source of that data within your organization or online. If the source is present in the "Get Data" list, simply click on it and follow the wizard to complete the connection process. If it isn't listed, click on "Other" from the "Get Data" list and select "Blank Query". Type in your connection parameters and connect to the data.


Get Data
Search
All
File
Database
Azure
Other
Other
Salesforce Reports
ODBC
R Script
appFigures (Beta)
GitHub (Beta)
MailChimp (Beta)
Marketo (Beta)
QuickBooks Online (Beta)
Smartsheet
SQL Sentry (Beta)
Stripe (Beta)
SweetIQ (Beta)
Twilio (Beta)
Zendesk (Beta)
Spark (Beta)
Bank Query
Connect
Cancel

CHAPTER THREE

Now that you have a good understanding of how to get data for analysis in Power BI, it is time to create some amazing reports. Ready to get started?

Remember the building blocks of Power BI we discussed earlier, we're going to use those building blocks to understand the concept of creating reports. The first block on the list is the dataset. If you can't remember what a dataset is, skip back to the "Building Blocks of Power BI" section for a quick refresher.

The dataset is the backbone of our reports and dashboards. In simplistic terms, whatever report you want to see, the data needs to be present in the underlying dataset. If the data is not in the dataset, you can't visualize that information. Got it? Let's get right to it then.

In this chapter, we will look at creating datasets by getting data from a single source or combining data from different sources. Let's get started.

CREATING DATASETS

It is a known fact that the data needed for a report or dashboard can come from many different sources. When this data is brought into Power BI, it has to be combined into a single dataset so create the required reports or dashboards.

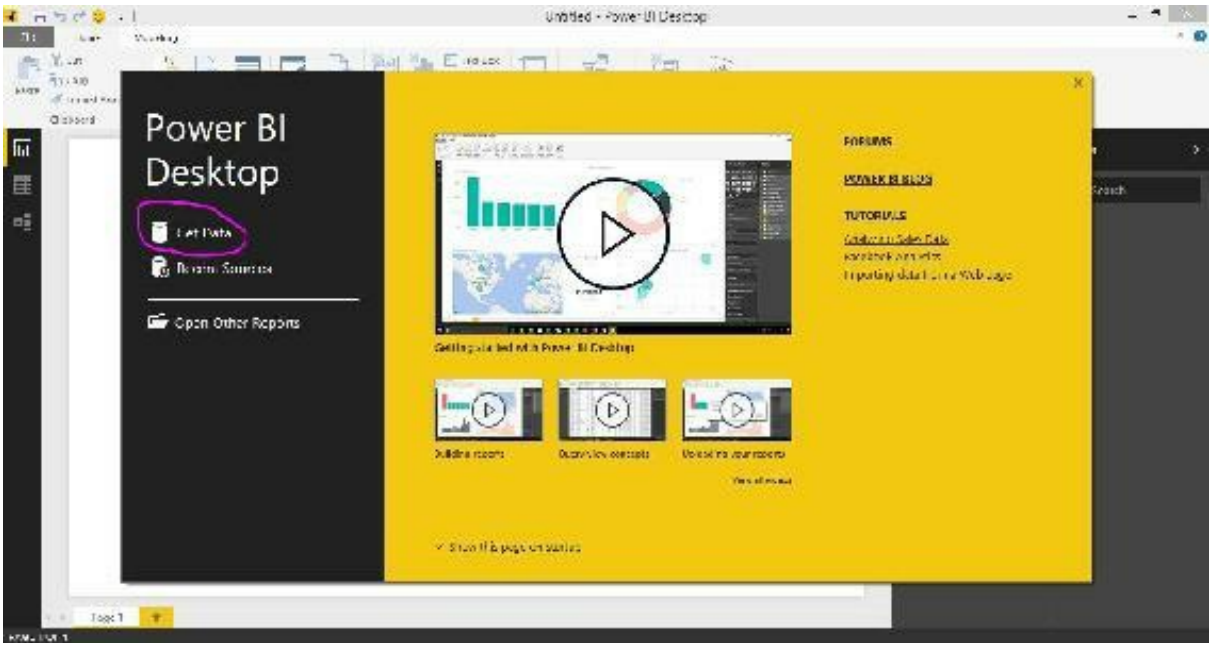
If the data you need for a report is stored in a single source e.g. one Excel sheet within a workbook or one table in a SQL Server Database, you're in luck. All you need to do to create a dataset is to connect to that data source and import the data into Power BI. Unfortunately, there's not that much luck to go around and for the rest of the bunch who aren't as lucky as you are, they have to get their data from multiple different sources to generate the reports or dashboards they need.

In this section, we will create datasets by using data from a single source, as well as combining data from different sources.

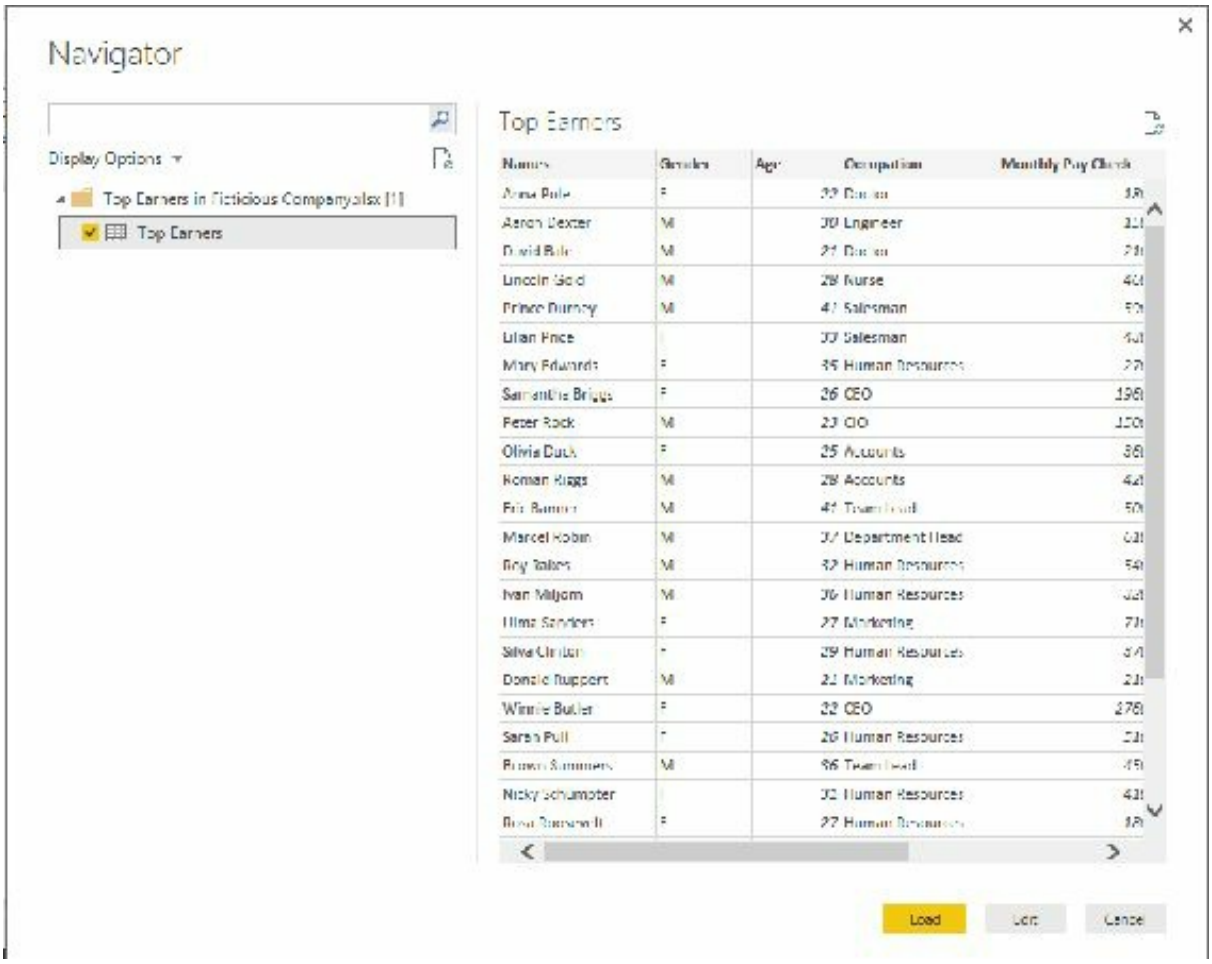
CREATING A DATASET FROM A SINGLE DATASOURCE

To create a dataset from a single data source, follow the steps below.

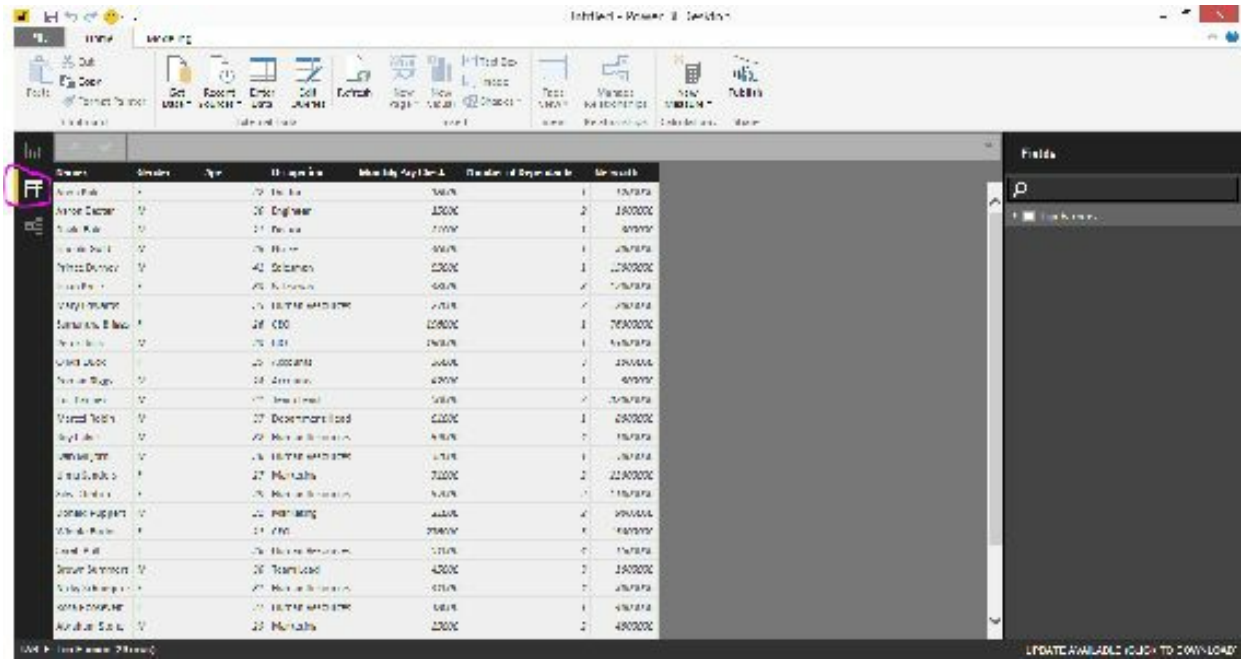
1. Launch the Power BI Desktop application and click on "Get Data".



2. Connect to the data source by selecting it from the list. Select the data you need by ticking the checkmark beside the table on the left. Click “Load” to bring the data into Power BI.



3. That's it. Your dataset is ready. Click on the dataset tab to view it if you like, or proceed with creating the reports you want.

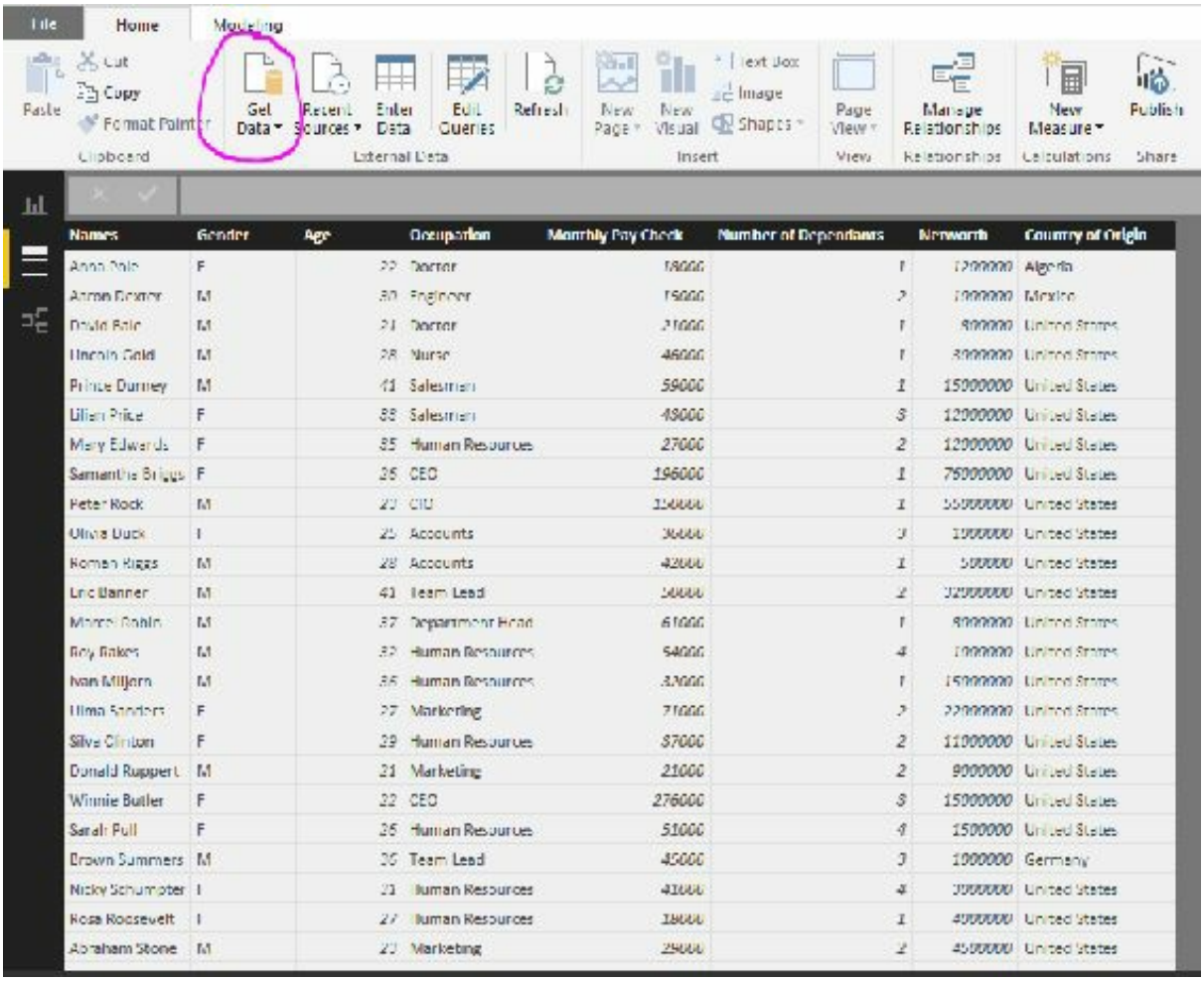


CREATING A DATASET FROM A MULTIPLE DATA SOURCES

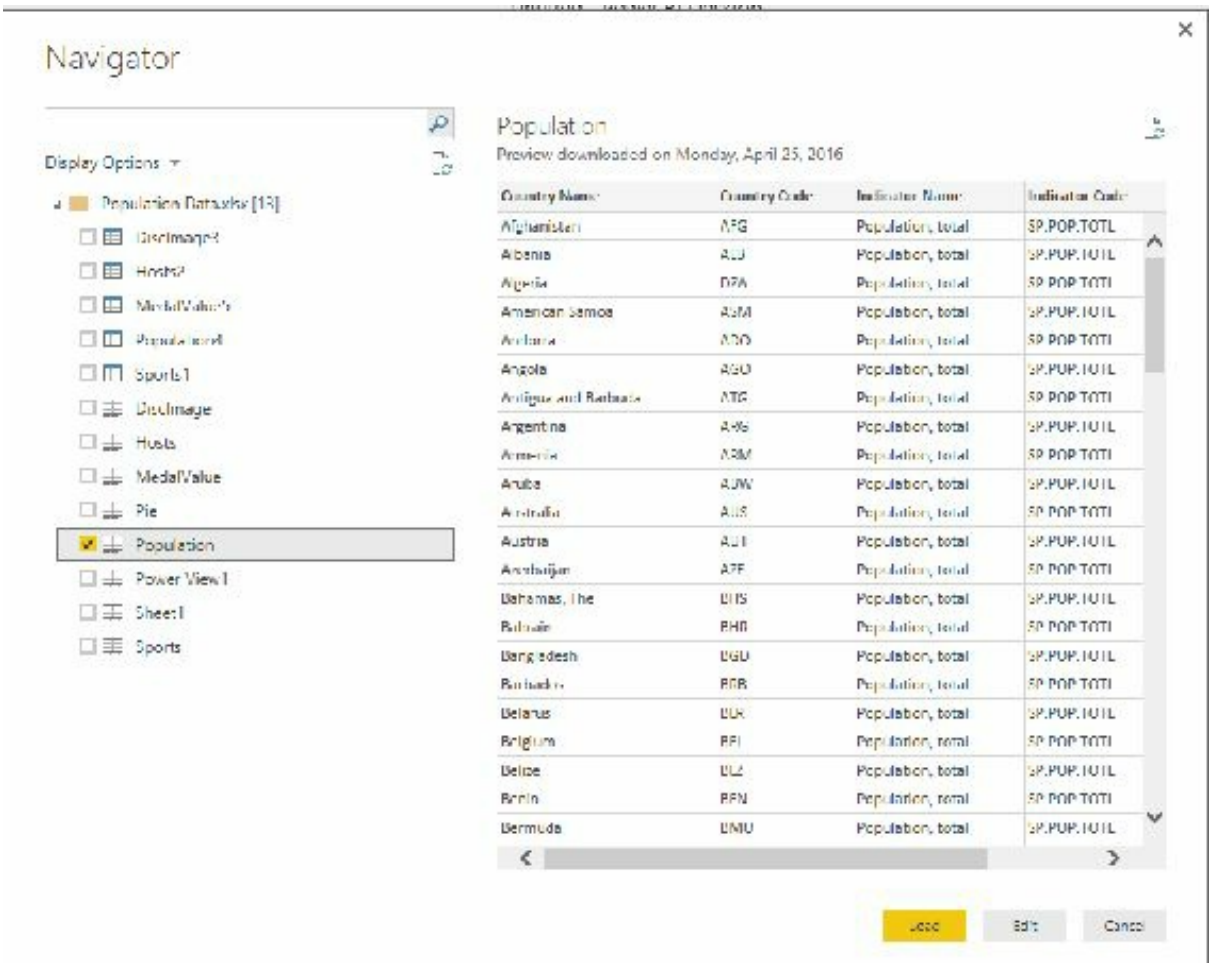
To create a dataset from multiple data sources, follow the steps below.

1. Launch the Power BI Desktop application.
2. Click on “Get Data” to get data from the first source.
3. Select the table(s) containing the data you need and click “Load” to bring it into Power BI. If you need to edit the data before importing it, click on the “Edit” tab and make the necessary changes.
4. Once the data is in the Power BI application, click on “Get

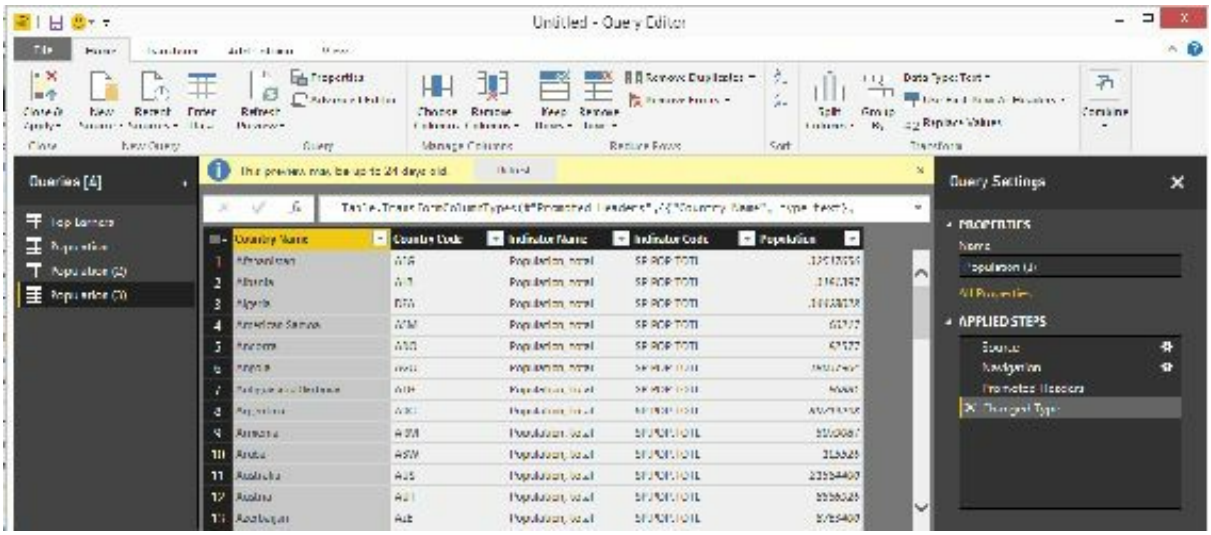
Data" again.



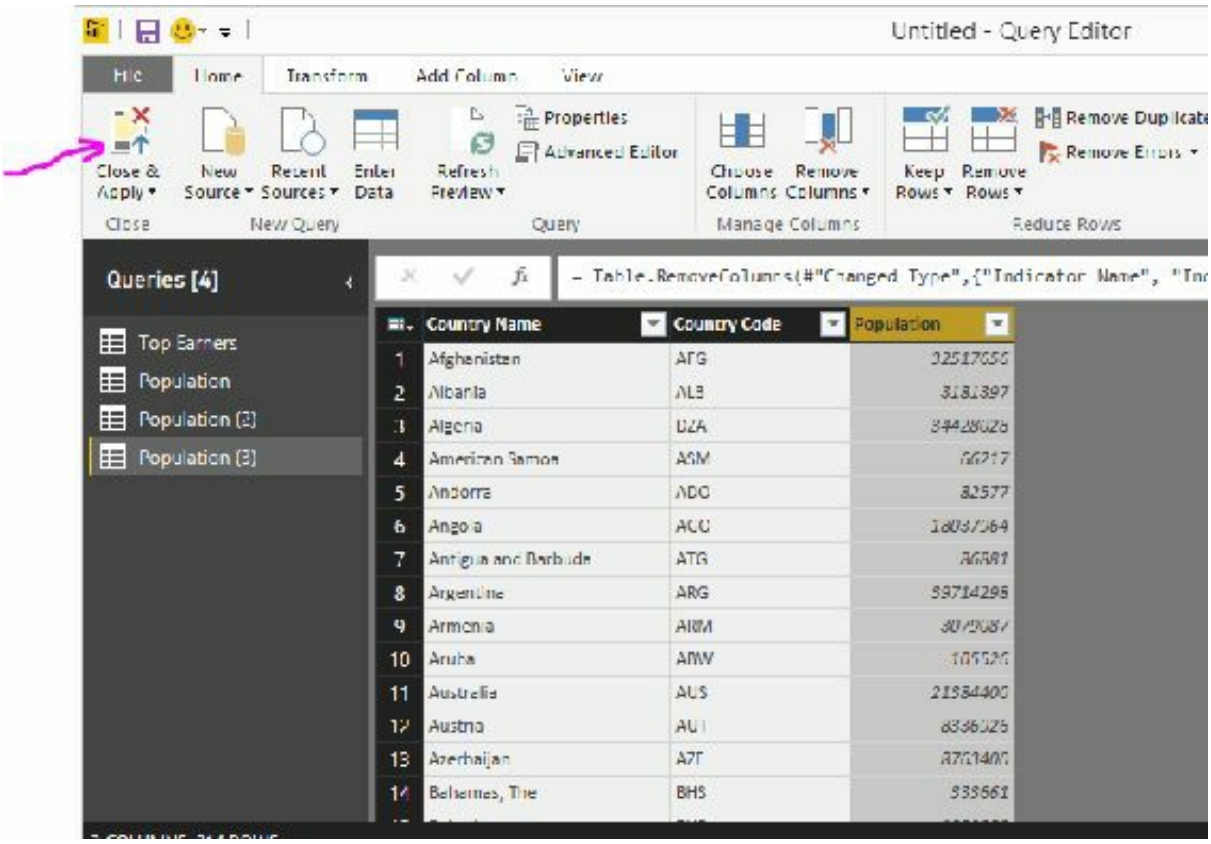
5. Connect to the second data source by selecting it from the list. Click the checkmark containing the table whose data you want to add to your existing dataset.



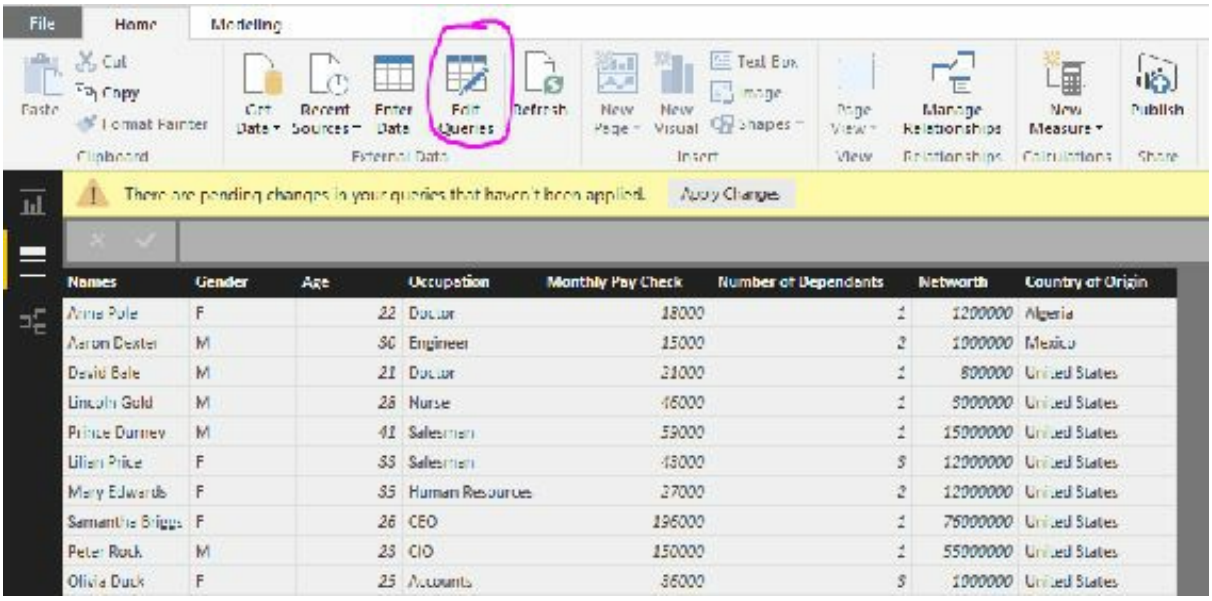
4. If you need to edit the data before importing it into Power BI, click on “Edit” beside “Load” at the bottom of the screen. In this case, I want to delete some columns before importing the data into Power BI, so I’m going to do just that.
5. The data opens up in the Query Editor window.



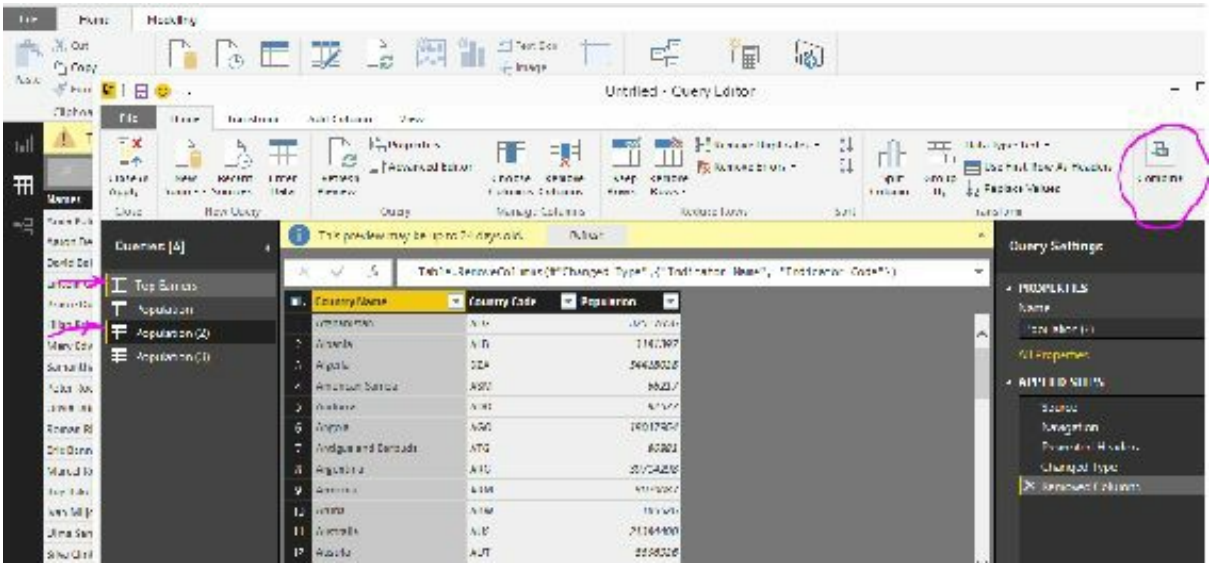
6. Right click any column you want to delete and click “Remove”. In this case, I’m going to delete two columns so I have just the columns I need.
7. Once done, click on the dropdown arrow beside “Close & Apply” and select “Close & Apply” from the list. The data is loaded into the Power BI application.



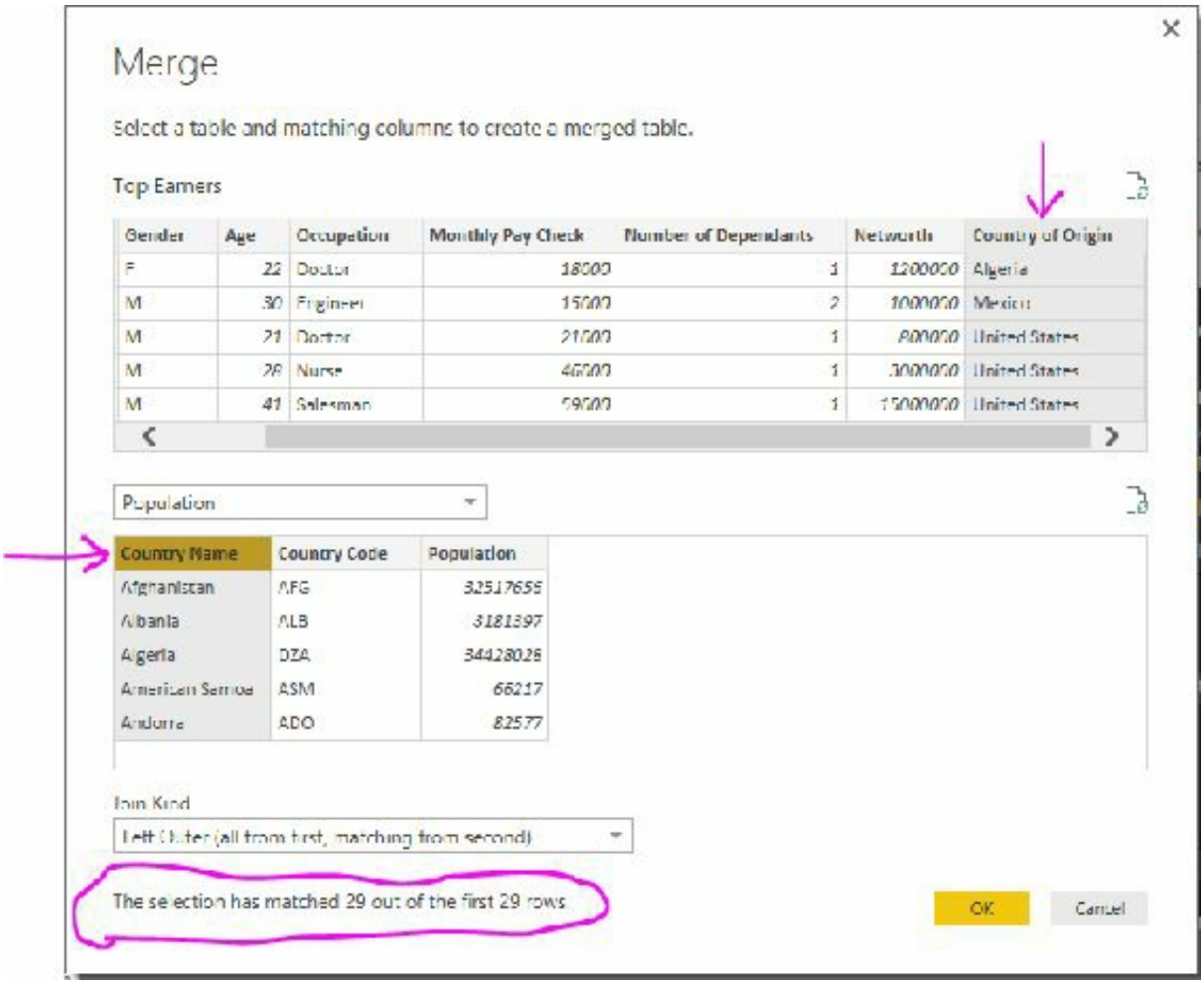
8. Now that we have the data we need in two datasets within the Power BI application, it's time to merge both datasets into one. Click on "Edit Queries" from the Menu ribbon.



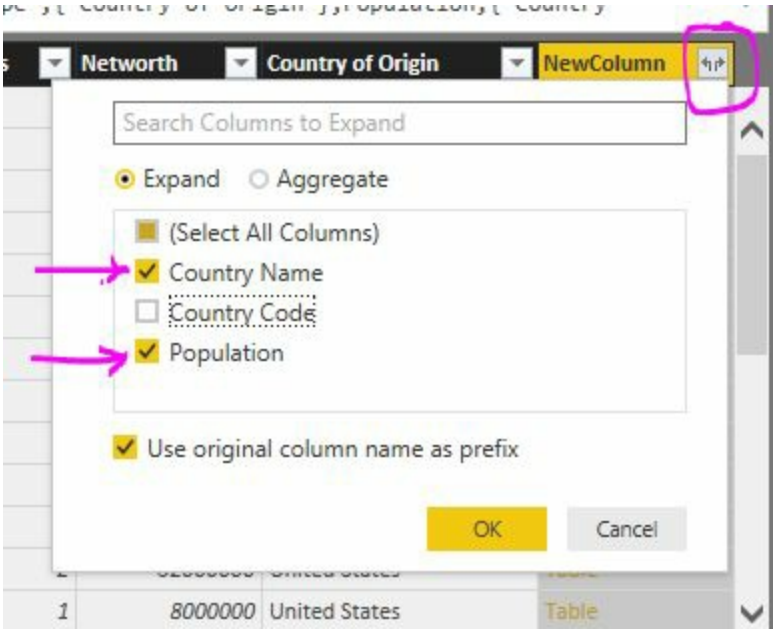
9. Highlight the datasets you want to merge by holding the “CTRL” key on your keyboard down and clicking each dataset. Click on the dropdown arrow below “Combine” and select “Merge Queries”.



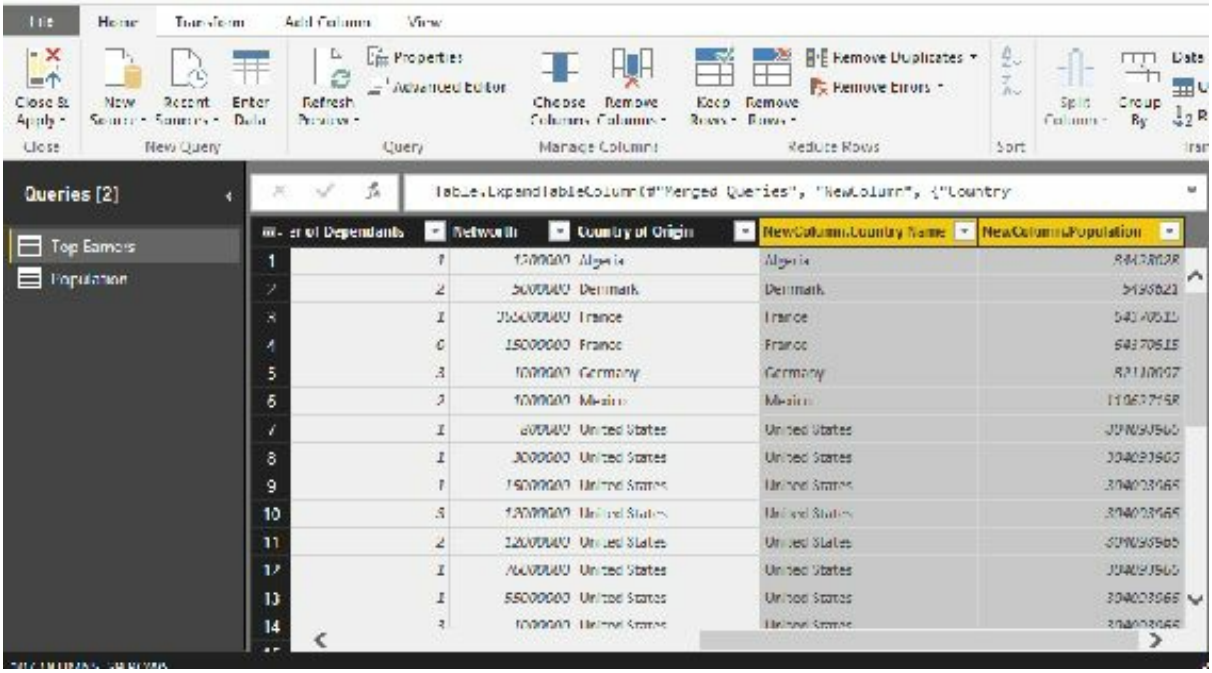
10. From the “Merge” window, select the table you want to merge with the already selected table and click on a matching column. Click “OK” once done. (Please note that the tables you combine need to have a matching column where they can be joined. In this case, the “Country of Origin” column from the “Top Earners” table matches the “Name of Country” column from the “Population” table).



11. Click on the ‘opposite arrows icon’ at the top right of the new included column and select the columns from the other table which you want to include in the first table. (In this case, I selected the “Country Name” and “Population” columns from the “Population” table because I want to add them to the “Top Earners” table)
12. Click “OK” once done.

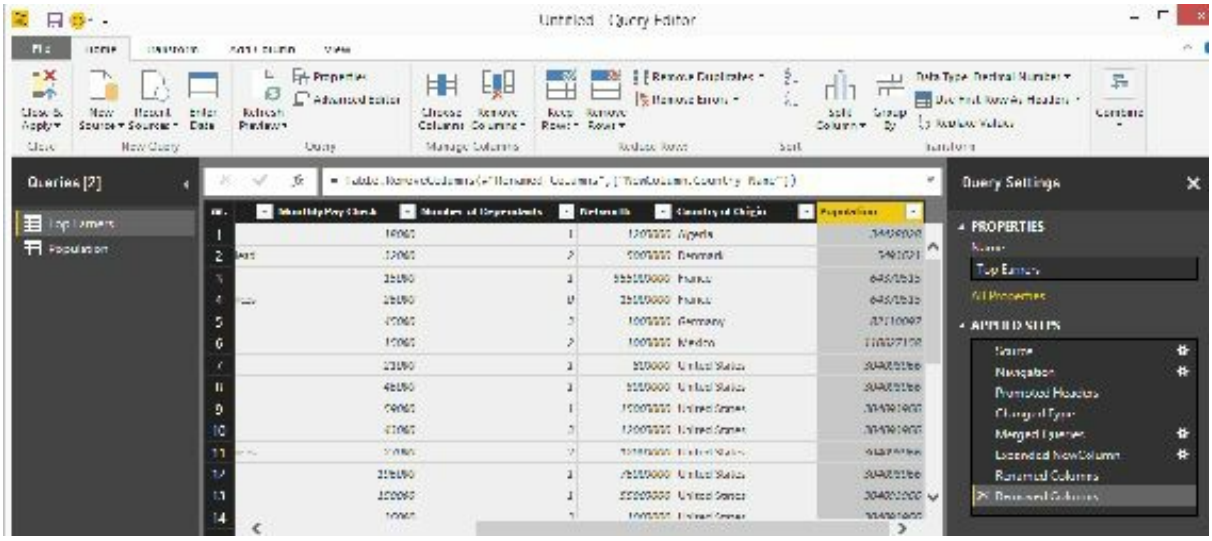


13. The selected columns get added to the dataset.

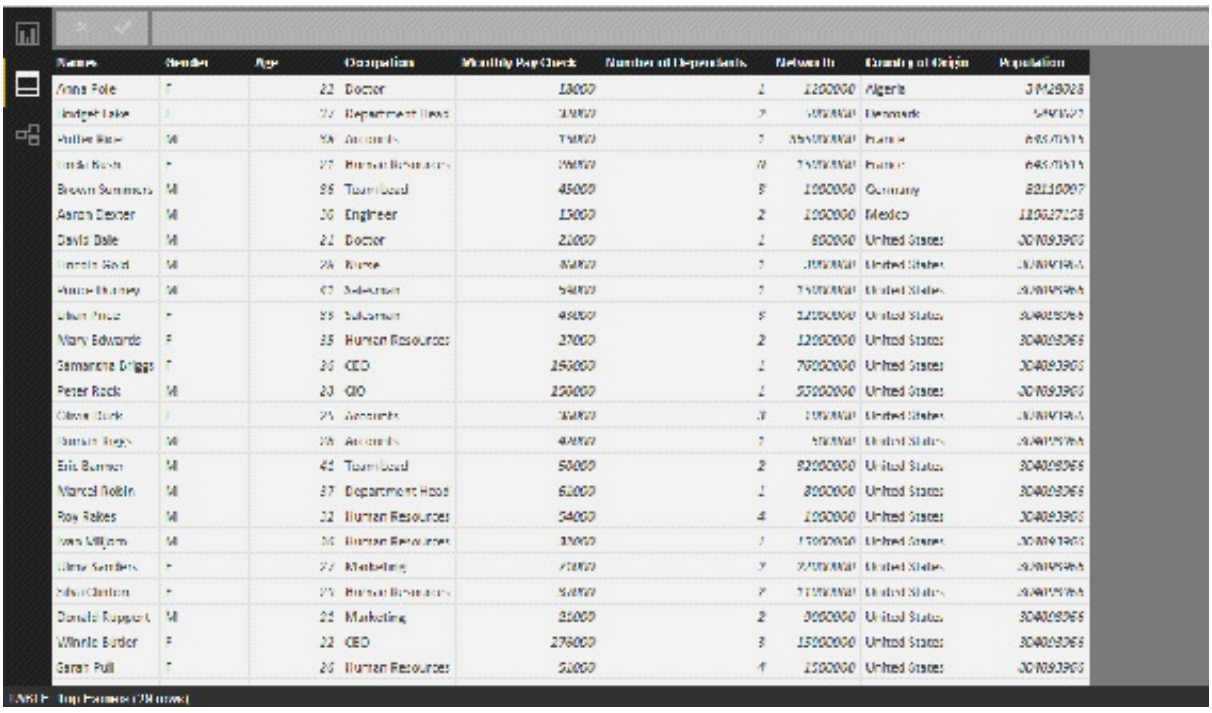


14. Rename the columns to match the naming convention of your base dataset and remove duplicate columns. (In this case, “NewColumn.Population” will be renamed to “Population” and

"NewColumn.Country Name" will be removed. This is because it contains the same data as the "Country of Origin" column. To rename a column, simply double click on the header and type in the new name).



15. The dataset now looks exactly how I want it to. To save this, I'll click on "Close & Apply" from the top ribbon. The "Top Earners" dataset now contains the "Population" column which I got from a different data source.



Name	Gender	Age	Occupation	Monthly Pay Check	Number of Dependants	Network	Country of Origin	Population
Anna Pole	F	22	Doctor	13000	1	1200000	Algeria	37128028
Bridget Lake	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Denmark	[illegible]
[illegible]	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	France	[illegible]
[illegible]	F	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	France	[illegible]
Brown Summers	M	56	Team Lead	45000	5	1000000	Germany	82110097
Aaron Dexter	M	30	Engineer	15000	2	1000000	Mexico	128627138
David Dale	M	22	Doctor	21000	1	800000	United States	304093966
[illegible]	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
[illegible]	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
[illegible]	F	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
Mary Edwards	F	35	Human Resources	27000	2	12000000	United States	304093966
Samantha Driggs	F	30	CEO	150000	1	70000000	United States	304093966
Peter Rock	M	20	CIO	120000	1	50000000	United States	304093966
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
[illegible]	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
Eric Banner	M	42	Team Lead	50000	2	82000000	United States	304093966
Marcel Noblin	M	37	Department Head	62000	1	8000000	United States	304093966
Roy Rakes	M	22	Human Resources	54000	4	1000000	United States	304093966
[illegible]	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
[illegible]	F	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
[illegible]	F	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	United States	[illegible]
Donald Ruppert	M	22	Marketing	21000	2	3000000	United States	304093966
Winnie Burden	F	22	CEO	270000	3	15000000	United States	304093966
Garan Pull	F	20	Human Resources	51000	1	1500000	United States	304093966

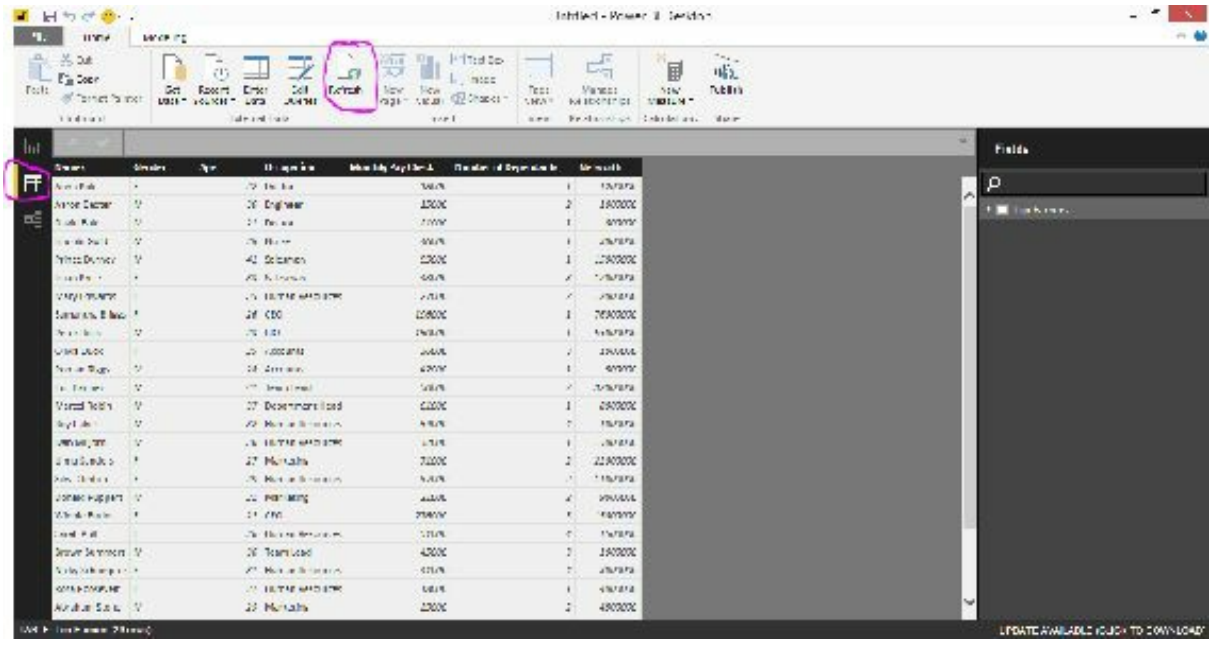
The general steps to note while creating datasets from different sources are as follows:

1. Know what data you want to include in your report/dashboard.
2. Know where that data is stored.
3. Establish a connection to the data store (e.g. by having authorized credentials).
4. Connect to the data store using the Power BI application.
5. Load the data you need into the Power BI application.
6. Find matching columns with which to join the tables.
7. Combine the data as appropriate.

REFRESHING DATA IN A DATASET

If data is already imported into Power BI and changes are made to the source data, those changes can be brought into Power BI by using the “Refresh” functionality. To do this, follow the steps below.

1. Launch the Power BI Desktop application.
2. Click on the “Dataset” tab on the left to display the dataset.
3. Click on “Refresh” from the top menu. This imports all changes made to the source data store into the Power BI application.



Names	Gender	Age	Occupation	Monthly Pay Check	Number of Dependants	Networth	Country of Origin
Anna Pole	F	22	Doctor	13000	1	1200000	Algeria
Aaron Dexter	M	30	Engineer	15000	2	1000000	Mexico
David Dale	M	21	Doctor	21000	1	800000	United States
Lincoln Gold	M	25	Nurse	40000	1	3000000	United States
Prince Durney	M	41	Salesman	53000	1	15000000	United States
Lilian Price	F	33	Salesman	43000	3	12000000	United States
Mary Edwards	F	35	Human Resources	27000	2	12000000	United States
Samantha Briggs	F	26	CEO	190000	1	70000000	United States
Peter Rock	M	23	CIO	150000	1	55000000	United States
Olivia Duck	F	25	Accounts	26000	3	1000000	United States
Roman Riggs	M	25	Accounts	42000	1	500000	United States
Eric Banner	M	41	Team Lead	50000	2	52000000	United States
Marcel Rubin	M	37	Department Head	61000	1	8000000	United States
Roy Rakes	M	32	Human Resources	54000	4	1000000	United States
Ivan Mirjam	M	35	Human Resources	52000	1	15000000	United States
Uma Sanders	F	27	Marketing	71000	2	22000000	United States
Silvi Clinton	F	25	Human Resources	57000	2	11000000	United States
Donald Ruppert	M	21	Marketing	21000	2	3000000	United States
Winnie Butler	F	22	CEO	276000	3	15000000	United States
Sarah Pull	F	25	Human Resources	51000	4	1500000	United States
Brown Summers	M	35	Team Lead	45000	3	1000000	Germany
Nicky Schumpler	F	31	Human Resources	41000	4	3000000	United States
Rosa Roosevelt	F	27	Human Resources	18000	1	4000000	United States
Abraham Stone	M	25	Marketing	23000	2	4500000	United States

Note: A new column "Country of Origin" has been added to the dataset.

CHAPTER FOUR

CREATING VISUALIZATIONS FROM DATASETS

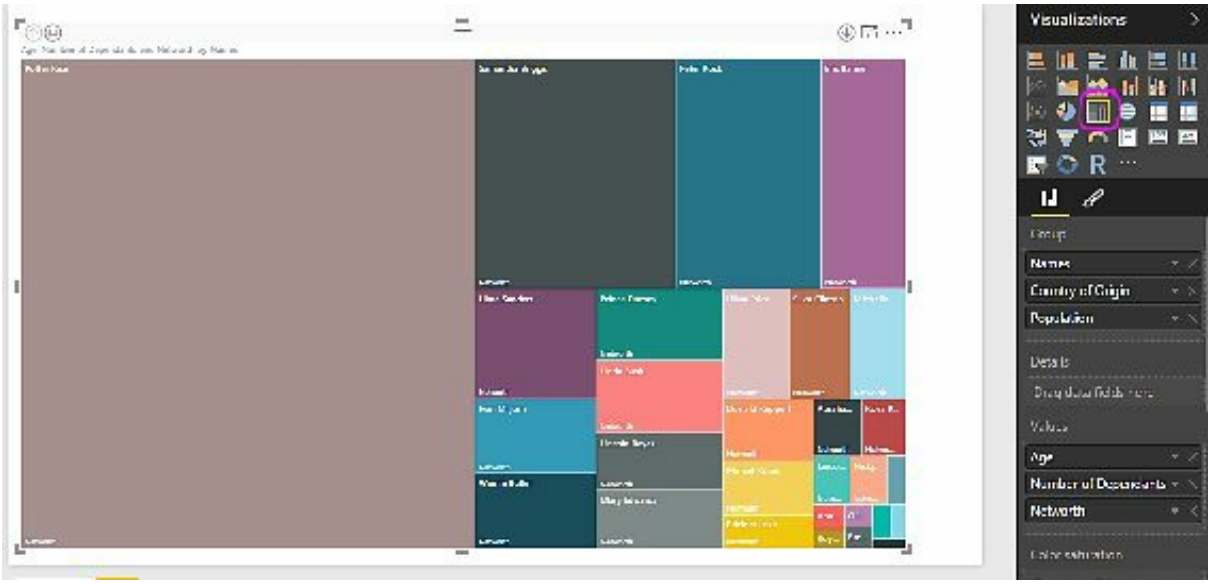
Now that you know how to create datasets that contain the right information necessary for your reports, it is time to create visualizations.

The first thing to consider here is the right visualization for the type of report you are trying to create. For instance, if your data contains geographical information (e.g. States, countries, cities), a map will be great for visualization.

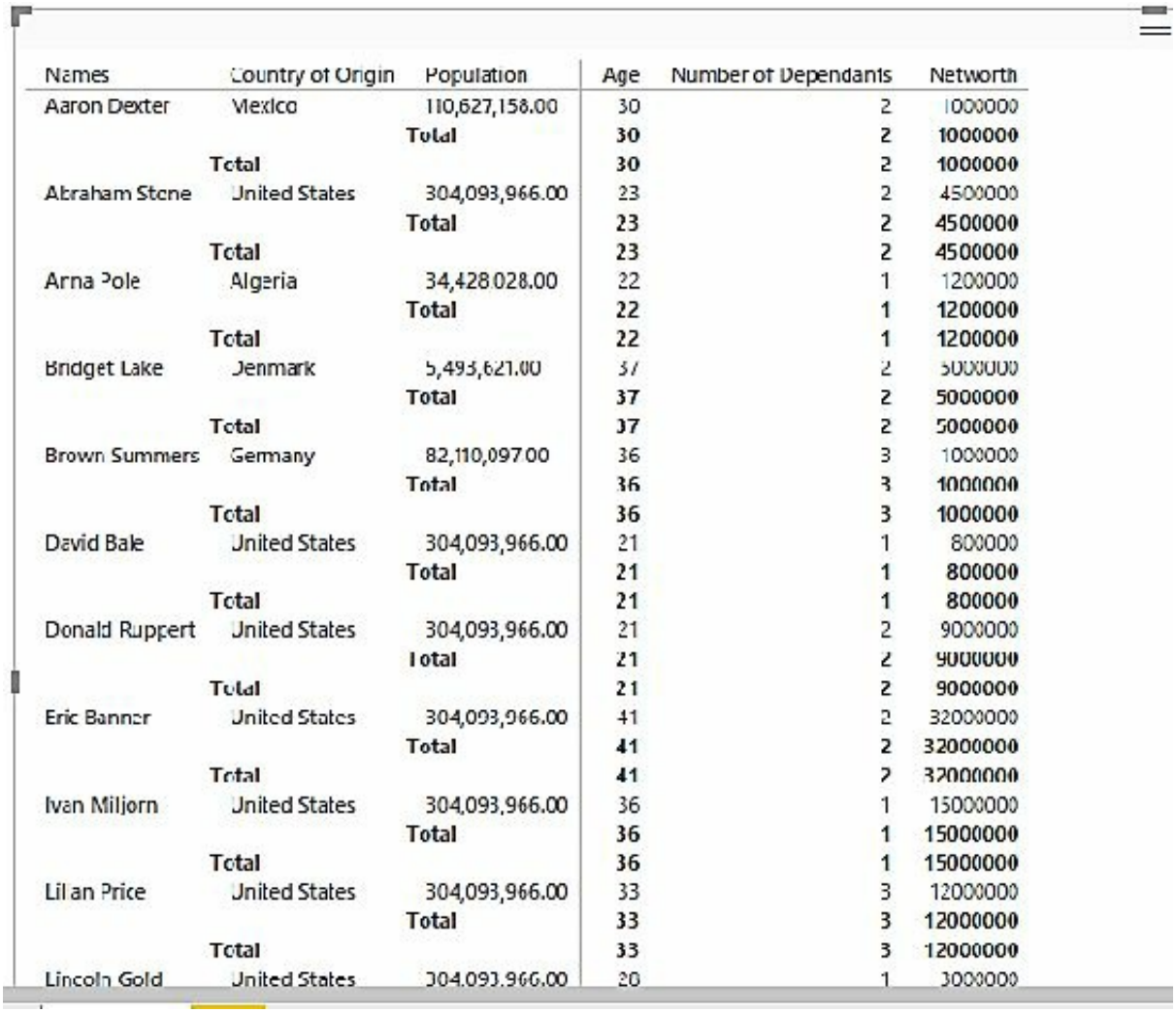
The beautiful thing about Power BI is that you can try out multiple visualizations until you find the one that is right for you. To do this, follow the steps below.

1. From the “Report” view of the Power BI Desktop application, select the columns you want to see in your report. The columns are listed under the “Fields” section on the right.

2. Once the appropriate columns have been selected, click on the visualizations contained in the “Visualizations” tab. This will transform the data and help you choose which one is best from a visual stand point.



From the visualization above, we can clearly see that Potter Rice has the greatest net worth among the top earners in my fictitious company.



Names	Country of Origin	Population	Age	Number of Dependants	Networth
Aaron Dexter	Mexico	110,627,158.00	30	2	1000000
		Total	**30**	**2**	**1000000**
	Total		**30**	**2**	**1000000**
Abraham Stone	United States	304,093,966.00	23	2	4500000
		Total	**23**	**2**	**4500000**
	Total		**23**	**2**	**4500000**
Arna Pole	Algeria	34,428,028.00	22	1	1200000
		Total	**22**	**1**	**1200000**
	Total		**22**	**1**	**1200000**
Bridget Lake	Denmark	5,493,621.00	37	2	5000000
		Total	**37**	**2**	**5000000**
	Total		**37**	**2**	**5000000**
Brown Summers	Germany	82,110,097.00	36	3	1000000
		Total	**36**	**3**	**1000000**
	Total		**36**	**3**	**1000000**
David Bale	United States	304,093,966.00	21	1	800000
		Total	**21**	**1**	**800000**
	Total		**21**	**1**	**800000**
Donald Ruppert	United States	304,093,966.00	21	2	9000000
		Total	**21**	**2**	**9000000**
	Total		**21**	**2**	**9000000**
Eric Banner	United States	304,093,966.00	41	2	32000000
		Total	**41**	**2**	**32000000**
	Total		**41**	**2**	**32000000**
Ivan Miljorn	United States	304,093,966.00	36	1	15000000
		Total	**36**	**1**	**15000000**
	Total		**36**	**1**	**15000000**
Lilan Price	United States	304,093,966.00	33	3	12000000
		Total	**33**	**3**	**12000000**
	Total		**33**	**3**	**12000000**
Lincoln Gold	United States	304,093,966.00	20	1	3000000

The visualization above shows the same data in a less colorful format.

Names	Age	Number of Dependants	Networth	Country of Origin
Aaron Bauer	39	2	1000000	Mexico
Abraham Stone	23	2	4500000	United States
Anna Pole	22	1	1200000	Algeria
Bridget Lake	37	2	5000000	Denmark
Brown Summers	36	3	1000000	Germany
David Bell	21	1	900000	United States
Donald Rudpert	21	2	8000000	United States
Eric Banner	41	2	32000000	United States

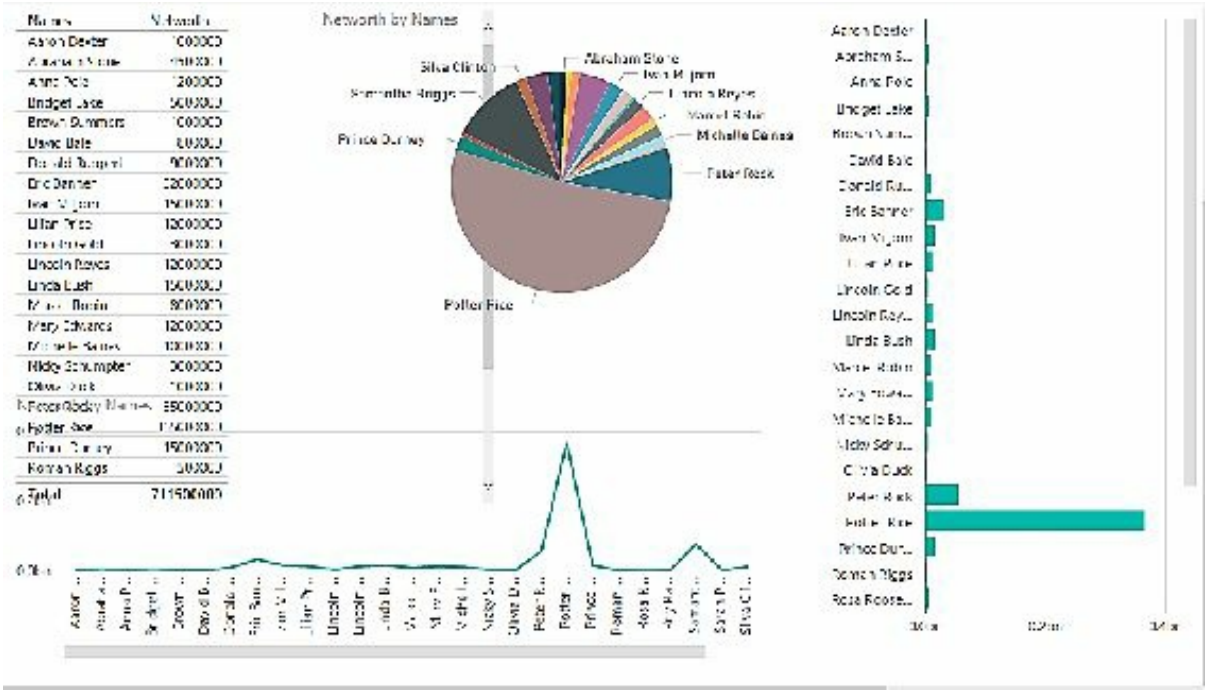
CHAPTER FIVE

CREATING REPORTS

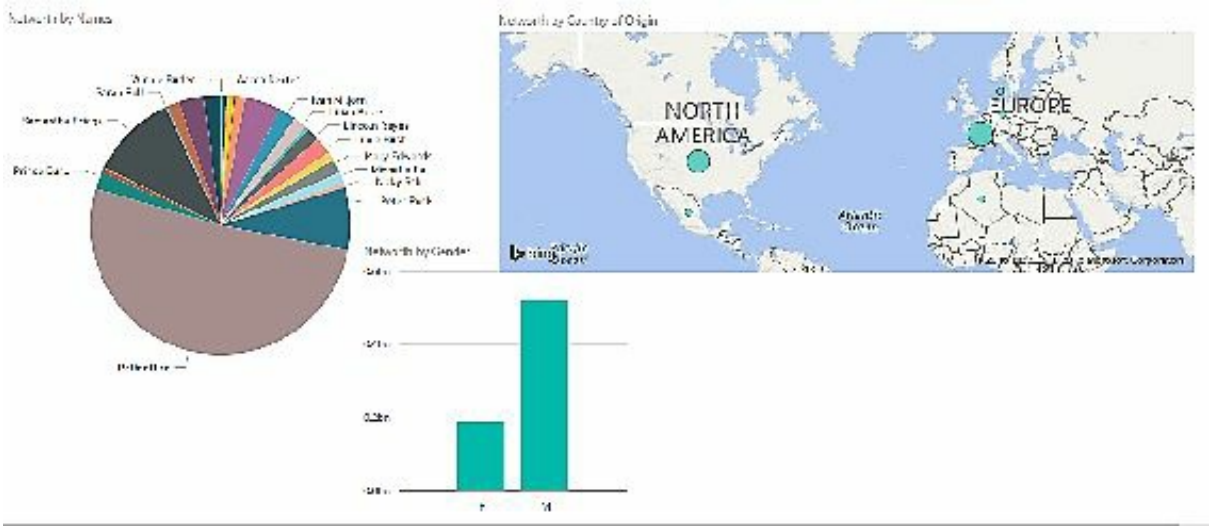
Now that you can create datasets and visualizations, it is time to put them together in a report. You can represent different facets of the data in a dataset using different visualizations. Power BI makes it easy to move data around the report dashboard as well as rearrange data in the way you deem best.

Let's go ahead and create a report from the dataset we created in the previous section.

The first report I'm going to create is one that shows the name of the Earners and their corresponding net worth. To do this, I'll select the "Names" and "Net-worth" fields from the "Fields" section and select the visualization I want from the "Visualizations" section. To represent the same data using different visualizations in the same report, I can simply copy the source tile and paste it on the report canvas. I can then apply two different visualizations to the tiles.



The second report I'm going to create will represent two different facets of my data. I'm going to show the net worth by names (because I want to know who my biggest top earner is), the net worth by gender (because I'm interested in the gender that's dominating my top earners list) and the net worth by country (because I'm interested in knowing which countries produce the highest earning members of my fictitious company).



I did find some pretty interesting facts about my data. Potter Rice being the biggest earner is no longer news to me because I found that out from the last exercise. However, take a look at the gender chart. The males have more than double the net worth of the females! I also got to know that France produced the biggest earner in my fictitious company.

Now let's assume these pieces of information are important to me. Can you see how easy Power BI made it for me to discover them?

CHAPTER SIX

CREATING DASHBOARDS

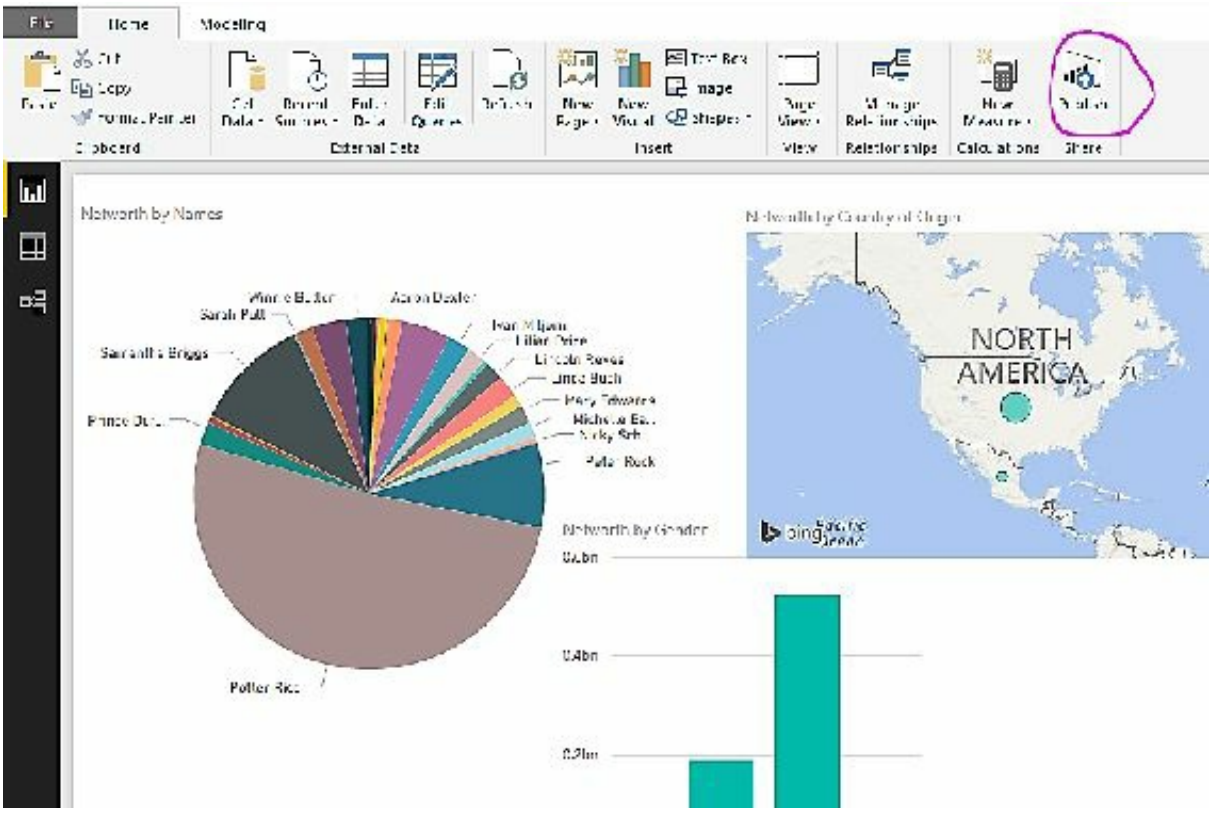
If you've gotten to this part of the book, good job! You're almost done with learning all the basic tricks of Power BI. In this section, we're going to create dashboards.

If you remember the definition of a dashboard from the "Building Blocks of Power BI" section, we stated that a dashboard is a collection of visualizations on a single page, which we can share with others. Wait a minute. That report we created in the previous section is on a single page! Why isn't it a dashboard? Well, the concluding part of the definition says that for it to be considered a dashboard, it has to be sharable with others and they need to be able to interact with it. Our report from the last section doesn't meet the last two criteria, so it's not a dashboard right now.

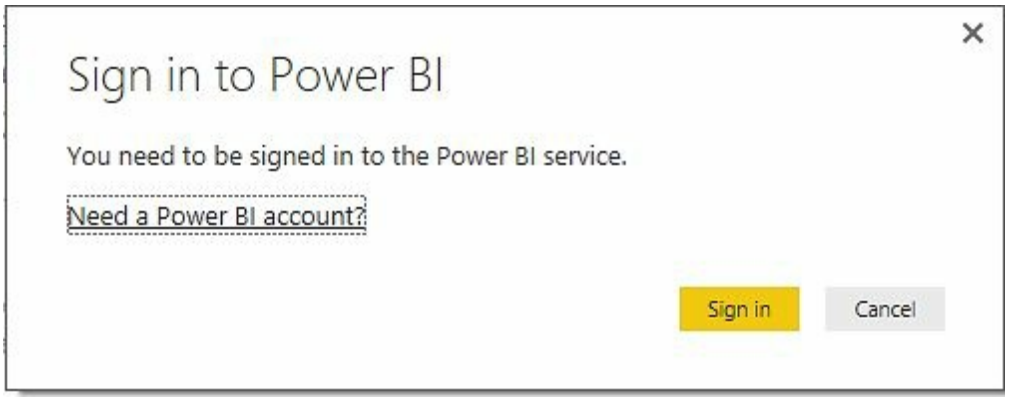
To create a dashboard, we're going to have to make use of the Power BI service – which is the online version of Power BI.

It's very easy to upload our already created report from Power BI desktop to the Power BI service. There are a number of ways to do this, but I'm going to use the "Publish" option. To do this, all I need to do is follow the simple steps below. Isn't it lovely when it's so simple?

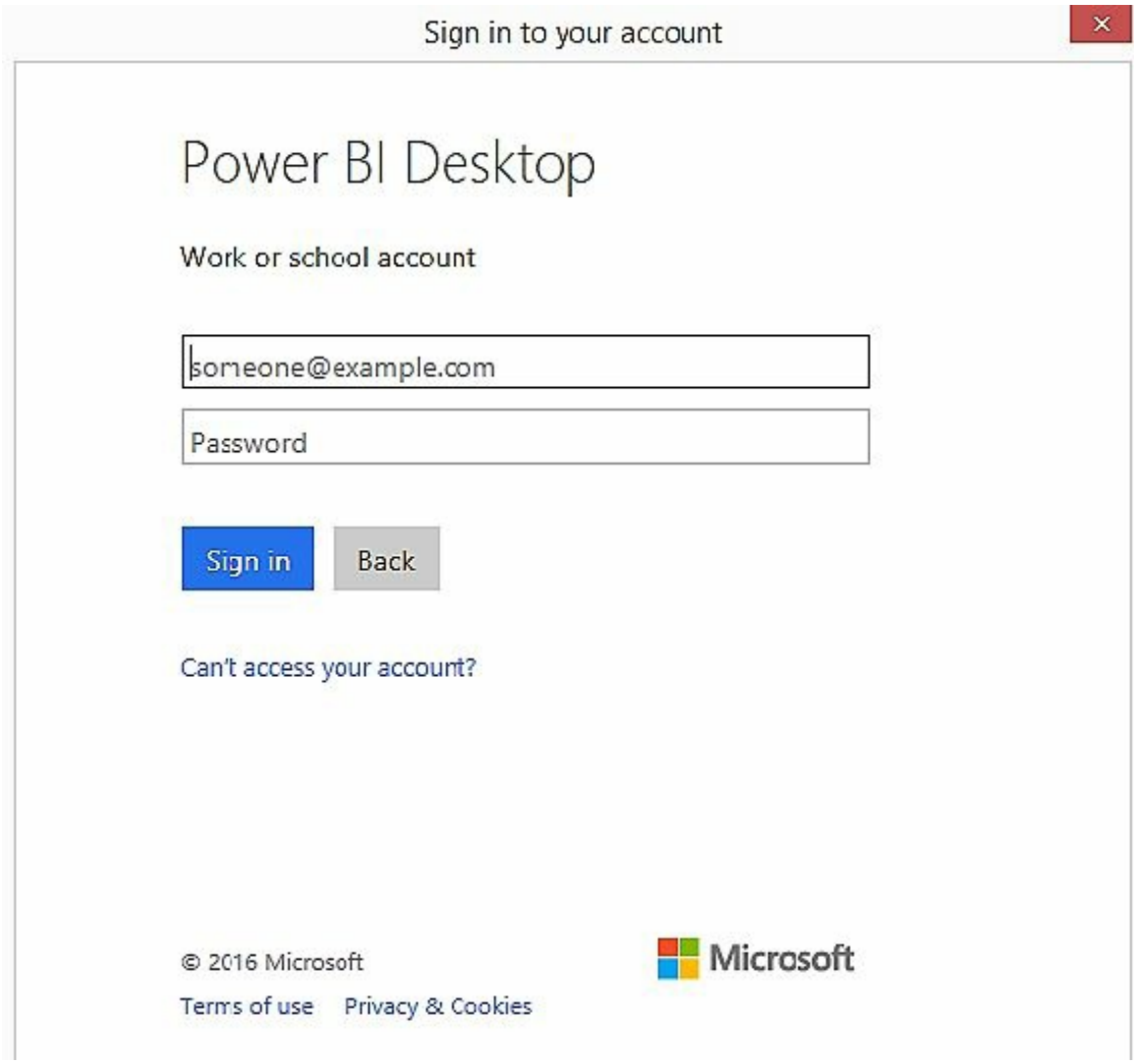
1. From the Menu ribbon on the Power BI Desktop application, click on the “Publish” button.



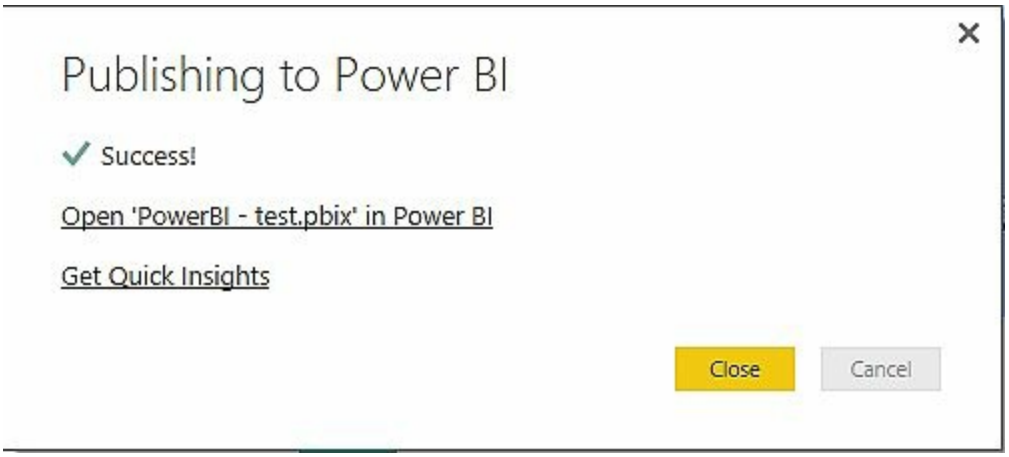
2. Click “Sign in”.



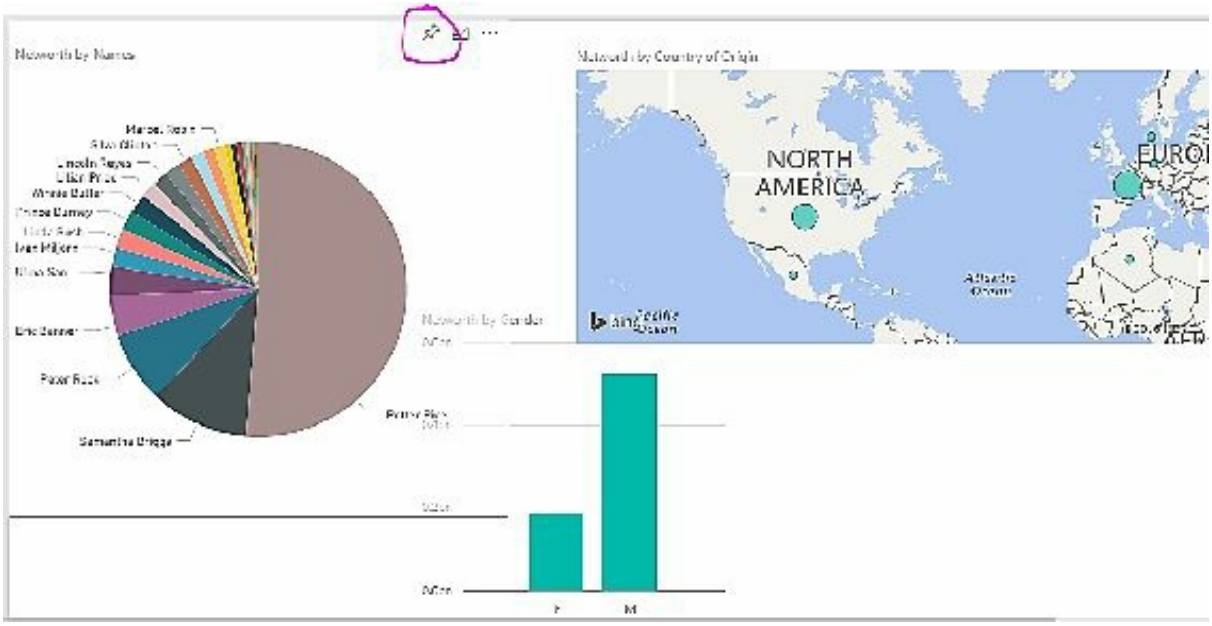
3. Type in your username and password for your Power BI service (online) account and click “Sign in”.



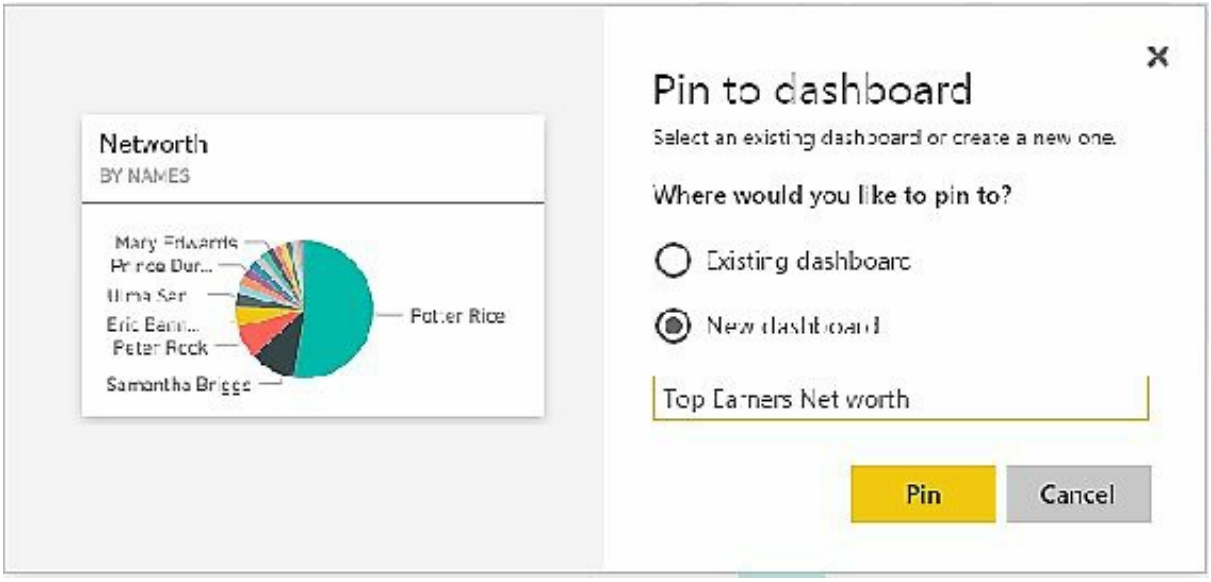
4. On successful login, the message below is displayed. You can click on the link to view the uploaded report in the Power BI service and click “Close”.



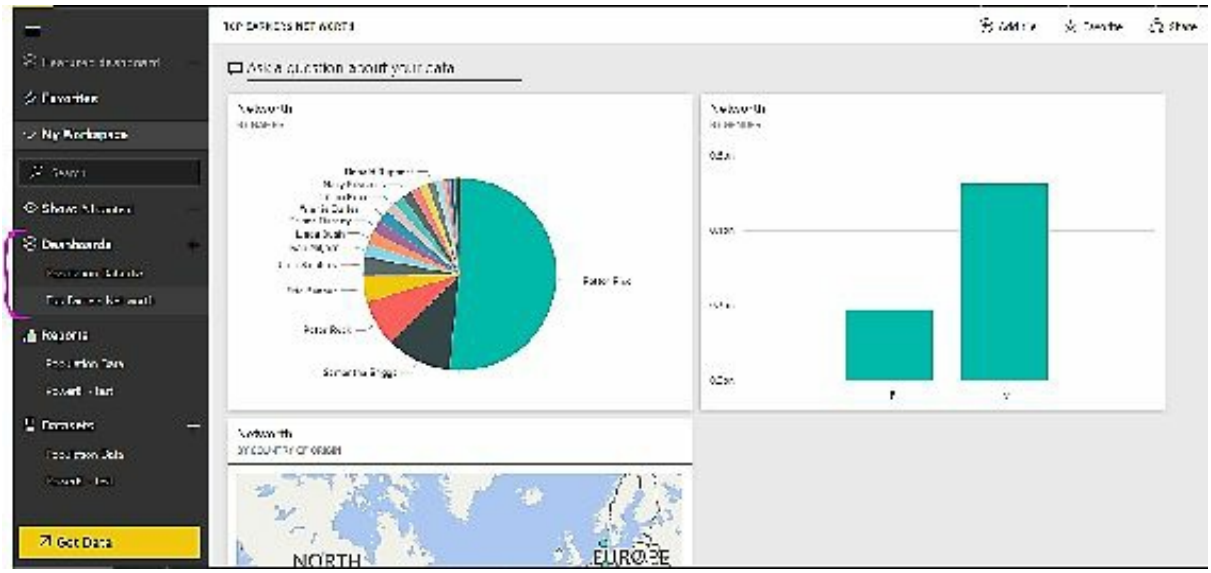
5. Once in the Power BI online service, you now have the “Pin” functionality which you will use to pin this report to a dashboard.



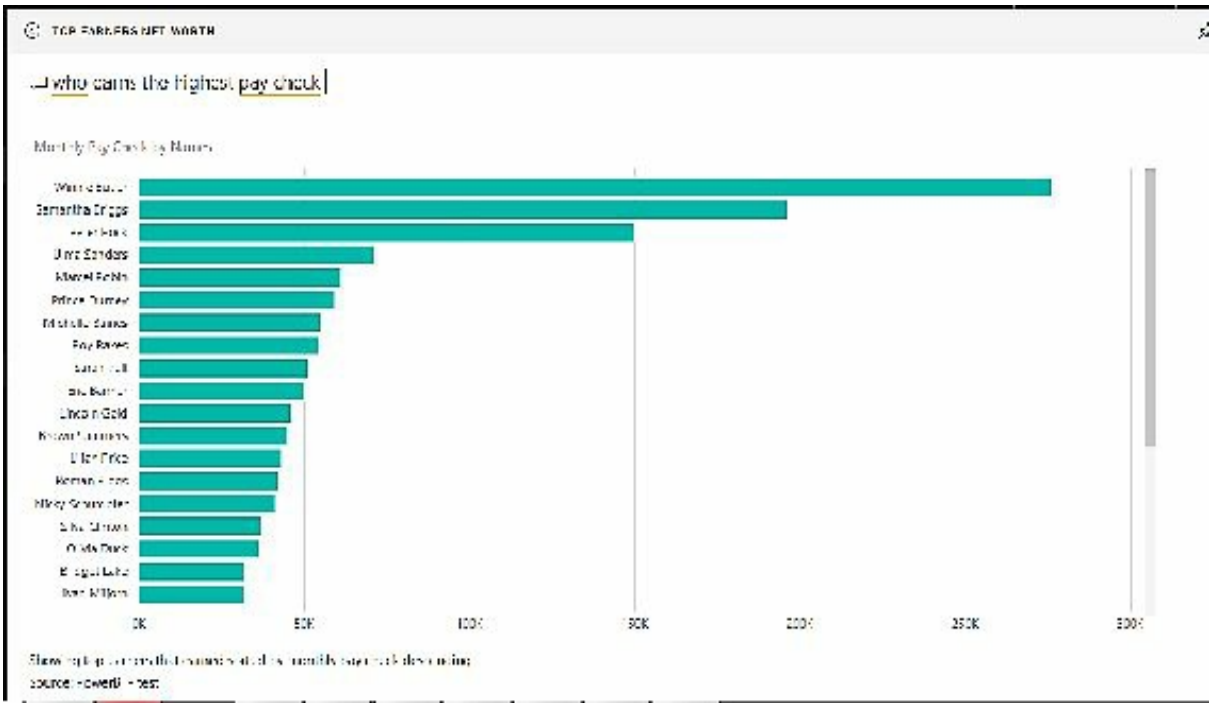
6. If the “Pin” button is clicked, you are asked to select the dashboard where you want to pin your report. You can select an existing dashboard or create a new one. In this case, I created a new one which I named “Top Earners Net Worth”. Click “Pin” after that.



7. After pinning all the reports you want to your dashboard, click on the name of the dashboard from the “Dashboards” section on the left.



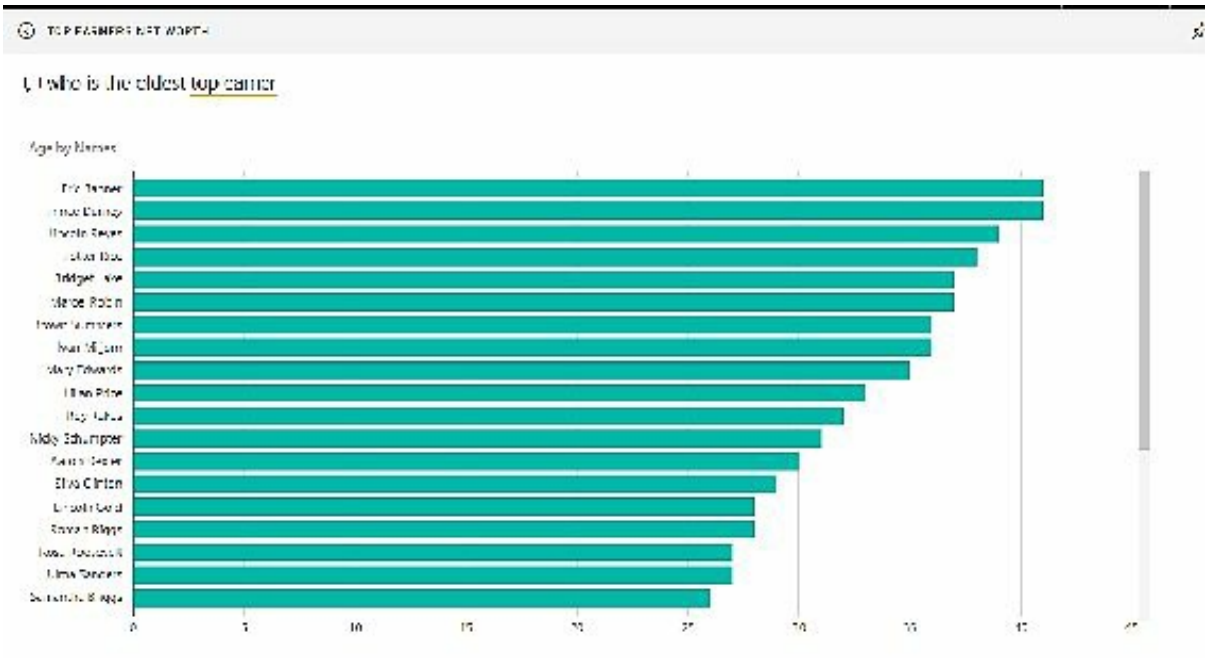
8. You’re all done! You have successfully created a Power BI dashboard and can now ask questions from your data. How cool is that?



In this case, I asked the question “who earns the highest pay check?” and guess what? Power BI produced a chart to show me the information I need. Remember the benefits of Power BI section? With an interactive tool like Power BI, you can create interactive dashboards which you can share with other people who can in turn ask questions that were not contained in your initial report (as long as the data exists in the dataset).

Just for kicks, let’s go ahead and ask some more questions.

Who is the oldest top earner? Eric Banner! I can also see from the same report that the youngest top earner is Samantha Briggs. I don’t need to ask that question again.



How many countries have top earners in my fictitious company?

There’s so much you can do with Power BI. Give it a go and have some fun!

CHAPTER SEVEN

SHARING REPORTS AND DASHBOARDS WITH OTHERS

So you have created that beautiful report or dashboard that contains the key information to help your company take its next step. Now what?

If a report or dashboard doesn't get to the right people who need it, it's as good as being non-existent. This brings us to the next section of our Power BI knowledge quest. How do we share our reports and dashboards with others?

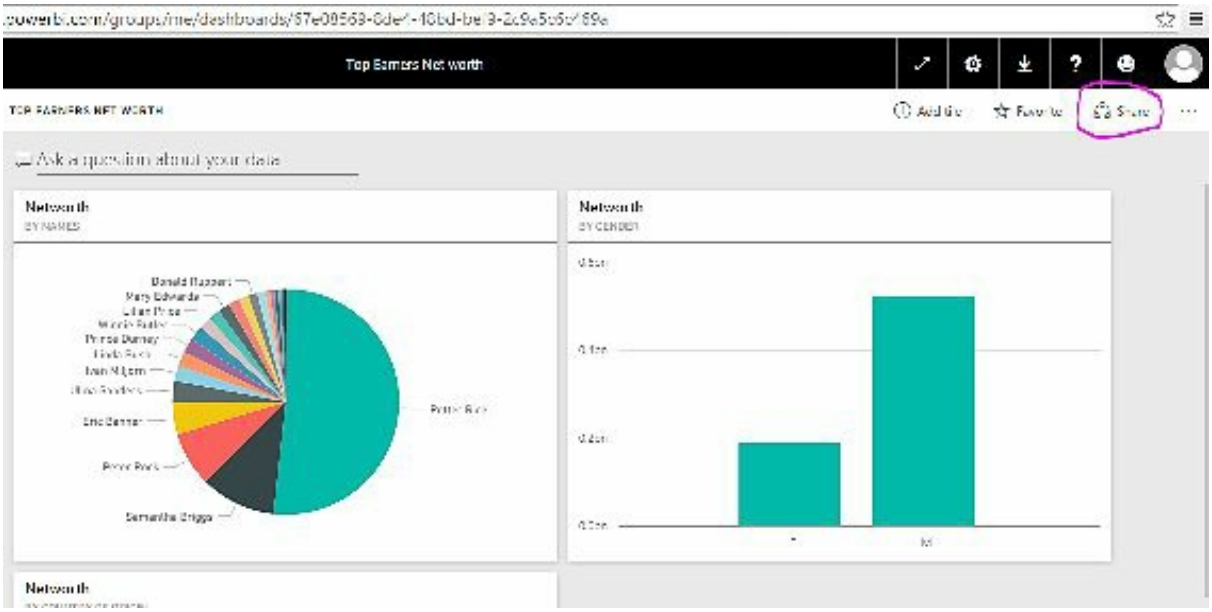
The good news is that it is very easy to do this. What you need to remember before doing this is that everyone you share your report/dashboard with MUST have a Power BI license. So, if you're on the free version of the Power BI service, just make sure to assign free licenses to everyone who needs to interact with your report. If your report/dashboard was created with Power BI Pro, you have to assign Power BI Pro licenses to everyone who needs to interact with your report.

Now that we have that sorted out, let's go ahead and share that dashboard!

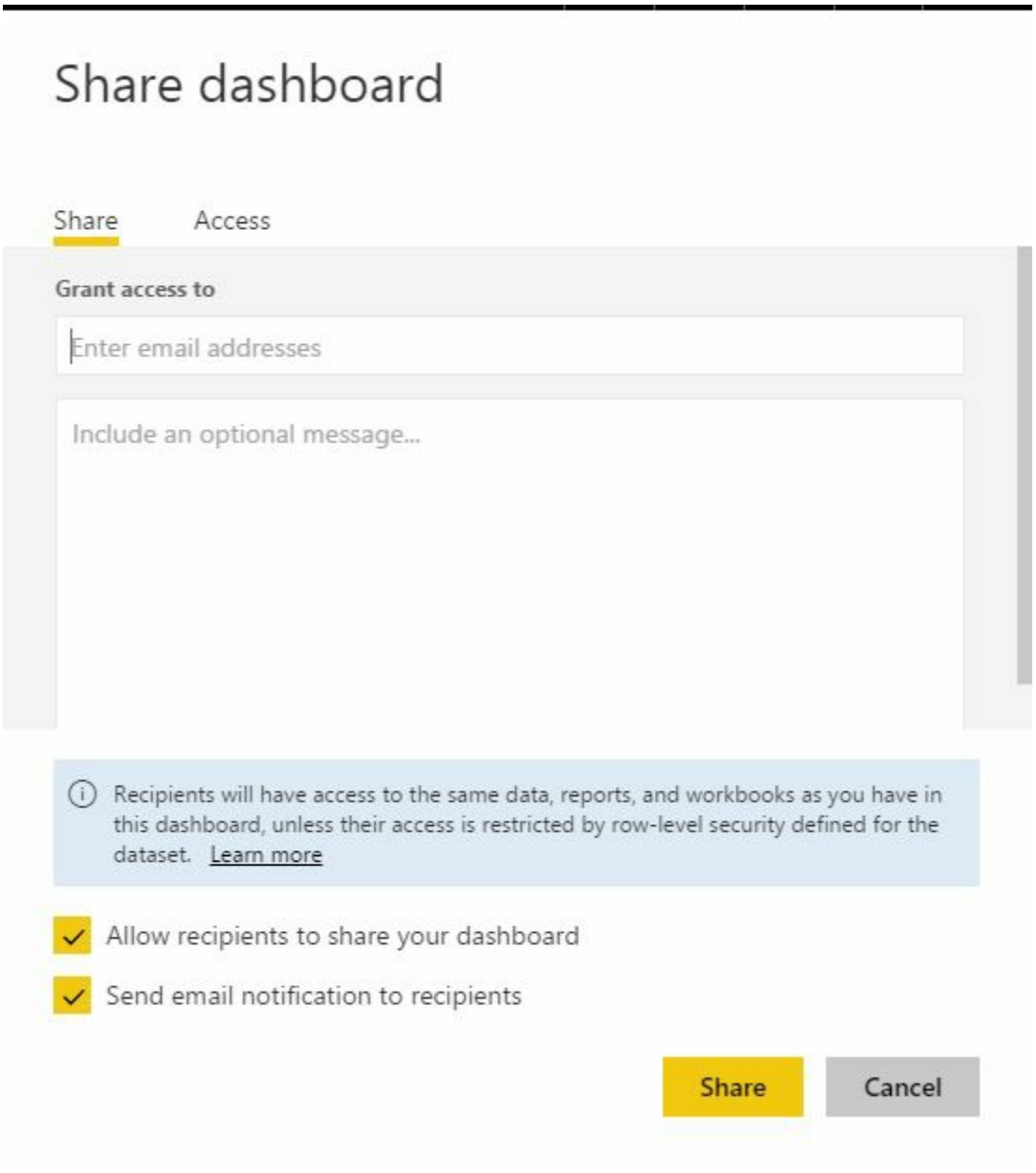
To do this, follow the steps below.

1. From the Dashboard canvas of the Power BI online service, click

on “Share”.



2. Enter the email addresses of the people you want to share the dashboard with in the “Email addresses” section.
3. Include an optional message (which is what the recipients will see to know what your dashboard is about).
4. Select whether or not you want them to be able to share the report as well.
5. Click on “Share”.
6. That’s it. You’re all done. The recipients will receive an email with a link to your dashboard.


Share dashboard
Share
Access
Grant access to
Enter email addresses
Include an optional message...
Recipients will have access to the same data, reports, and workbooks as you have in this dashboard, unless their access is restricted by row-level security defined for the dataset. Learn more
Allow recipients to share your dashboard
Send email notification to recipients
Share
Cancel

POWER BI FREQUENTLY ASKED QUESTONS

What is Microsoft Power BI?

Power BI is a cloud-based business analytics service that enables anyone to visualize and analyze data with greater speed, efficiency, and understanding. It connects users to a broad range of data through easy-to-use dashboards, interactive reports, and compelling visualizations that bring data to life.

What's the difference between Power BI and Power BI Pro?

Power BI provides all sorts of features to help you get started exploring data in a whole new way. Power BI Pro provides all of the same great features in Power BI, plus additional features like more storage capacity, scheduling data refresh more frequent than daily, live data sources with full interactivity, groups, and more. Learn more about the differences between Power BI Pro and the free Power BI.

How much does Power BI cost?

Power BI and Power BI Desktop are free. There is a 60-day free trial available for Power BI Pro. After that, Power BI Pro is $9.99/User/Month. Learn more about our pricing Power BI pricing.

What is Power BI Desktop?

Power BI Desktop is a free desktop application you can install right on your

own computer. Power BI Desktop works cohesively with the Power BI service by providing advanced data exploration, shaping, modeling, and report creation with highly interactive visualizations. You can save your work to a file, and publish your data and reports right to your Power BI site to share with others.

What do I need to use Power BI?

Just a Web browser and work email address.

Note: Work email addresses ending in .gov and .mil aren't currently supported.

Why do I have to sign up with my work email?

Power BI does not support email addresses provided by consumer email services or telecommunications providers. Learn more about the Power BI self-service sign-up process.

Which work email addresses are supported?

Work email addresses ending in **.edu** and **.org** are supported.

Those ending in **.gov** and **.mil** aren't currently supported.

Is government, academic and non-profit pricing available for Power BI?

Yes, non-profit pricing is available when purchasing directly from Microsoft. You can learn more and sign up through the Microsoft Product Donation site.

Government and academic pricing is offered through the MOSP/Direct, EA, and Open licensing programs. Government pricing is also available in syndication. Power BI is not yet available for the US Government Community Cloud (GCC).

Is Power BI available on-premises?

No, Power BI is not available as a private, internal cloud service. However, with Power BI and Power BI Desktop, you can securely connect to your own on-premises data sources. With the Power BI Gateway - Enterprise, you can connect live to your on-premises SQL Server Analysis Services server. And, with the Power BI Gateway - Personal, you can refresh data from other on-premises data sources.

You can also view on-premises SQL Server mobile reports with the Power BI iOS apps:

- SQL Server mobile reports on the iPhone.
- SQL Server mobile reports on the iPad

Does Power BI support mobile devices?

Yes. Power BI has native apps for Android phones, iOS devices, and Windows 10 devices. Download one of the Power BI mobile apps from its respective store:

- Apple App Store
- Google Play
- Windows Store

What data sources can I connect to?

The list of data sources for Power BI is extensive, but it can be grouped into the following:

- Data from Excel and Power BI Desktop files.
- Content packs for services, with ready-made dashboards, reports, and datasets for services such as Salesforce. In addition to establishing a data connection, Power BI provides pre-built dashboards and reports for each of these services.
- Connectors to databases and other datasets such as Azure SQL Database and SQL Server Analysis Services tabular data.

Read more about getting data in Power BI.

What are content packs?

Content packs for services are pre-built solutions for popular services as part of the Power BI experience. A subscriber to a supported service can quickly connect to their account from Power BI and see their data through live dashboards and interactive reports that have been pre-built for them. We've

released content packs for popular services such as Salesforce.com, Marketo, Adobe Analytics, Azure Mobile Engagement, CircuitID, comScore Digital Analytix, Quickbooks Online, SQL Sentry, and tyGraph. Over the coming months, we'll extend this to include content packs and integrations for Sage, SpaceCurve, Sumo Logic, Zuora, Planview, Insightly, Troux, Inkling, and others.

Organizational content packs provide users, BI professionals, and system integrators the tools to build their own content packs to share purpose-built dashboards, reports, and datasets within their organization.

What do I need to install in order to use Power BI?

To use the Power BI service for free, you just need a Web browser and email.

To explore data and create reports in Power BI Desktop, download Power BI Desktop for free.

You can download the Power BI mobile apps from their respective stores:

- App Store
- Google Play
- Windows Store

Where do I get started with Power BI?

The following resources are available to help get your started:

- Power BI Blog
- Webinars
- Getting started videos on our YouTube Channel
- Get started with Power BI article
- Join our community and ask questions

What browsers does Power BI support?

Here's a complete list of supported browsers for Power BI.

What regions and languages does Power BI support?

Here's a complete list of regions and languages supported by Power BI.

How can I buy Power BI Pro in my country?

You can purchase Power BI Pro licenses directly or chat with a representative at www.powerbi.com.

You can also find a Microsoft Partner to help you with your Power BI implementation.

Where can I learn more about security?

Learn more about Power BI security, privacy and compliance in this Power BI Security whitepaper and our Power BI security support article.

What has happened to the Power BI for Office 365 experience?

The Power BI for Office 365 experience has been deprecated. Learn more about migrating to the new Power BI experience.

Source: This Power BI FAQ was gotten from the official Microsoft Power BI site which you can find here.

(https://powerbi.microsoft.com/en-us/documentation/powerbi-frequently-asked-questions)

LEARN MORE

This book is meant to serve as an introductory guide which will take you from the point of having zero or very little knowledge about Power BI, to the point where you can comfortably produce reports and dashboards that provide useful organizational insights.

If you will like to know more about Power BI, visit the official Power BI learning site here.

ABOUT THE AUTHOR

M.O. Cuddley is a Microsoft Certified professional with a Microsoft Certified Solutions Expert (MCSE) certification in Business Intelligence.

M.O. Cuddley has been working with the Microsoft SQL Server and Business Intelligence platforms for five years and has delivered solutions across different industry sectors.