

Business Intelligence: Power BI – Part 1

POWER BI EXERCISES

In this class, we will focus on the following exercises.

- **Introduction to Business Intelligence (BI) Tools and Power BI**
- **Get Started with Power BI**
- **Get data**
- **Create a Report with Visualisation**

Note: 1. In order to receive the certificate of course completion from LinkedIn, please make sure you complete all activities of the course <https://www.linkedin.com/learning/power-bi-essential-training-17362720> at your own pace and in your own time.

2. If you have watched all of the videos on the above link, then you can start working on the exercises. The exercises below are extracted from the same videos, so there is no need to redo them.

3. Certificate of Completion (Power BI Essential Training) **must** be attached to the Assignment Report in the Appendix section.

4. Microsoft continually enhances the features of Power BI, see also Power BI feature summary blog post: (<https://learn.microsoft.com/en-us/power-bi/fundamentals/desktop-latest-update?tabs=powerbi-service>).

INTRODUCTION TO BI TOOLS AND POWER BI

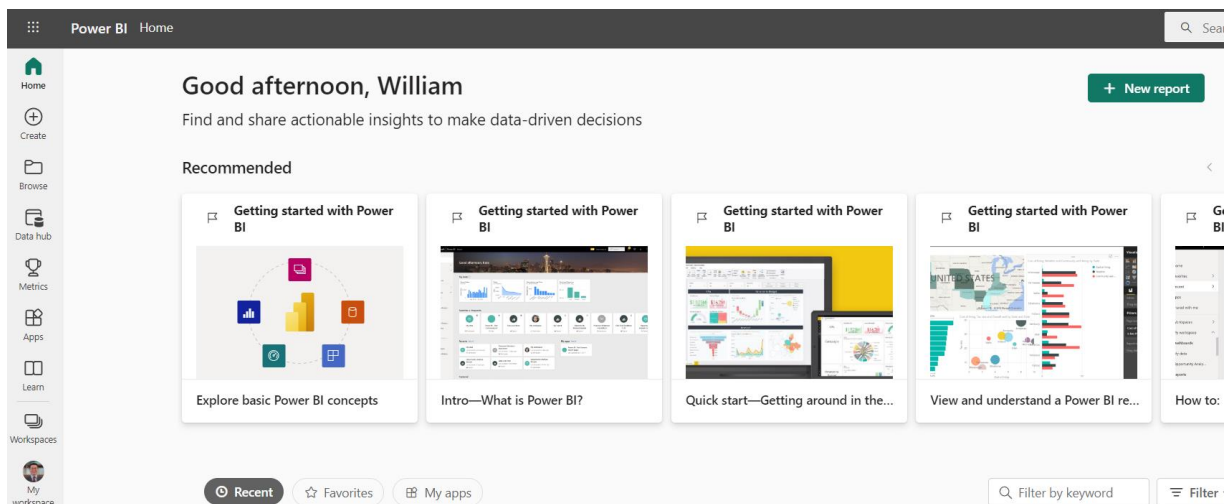
Power BI is a suit of business intelligence and analytics tools used for data analysis and data insights sharing. The tool supports monitoring your business and getting answers quickly with rich dashboards available on different devices.

In this lesson, you will gain:

- Power BI concepts
- What Power BI can do for data analysis
- Navigating through Power BI service tool

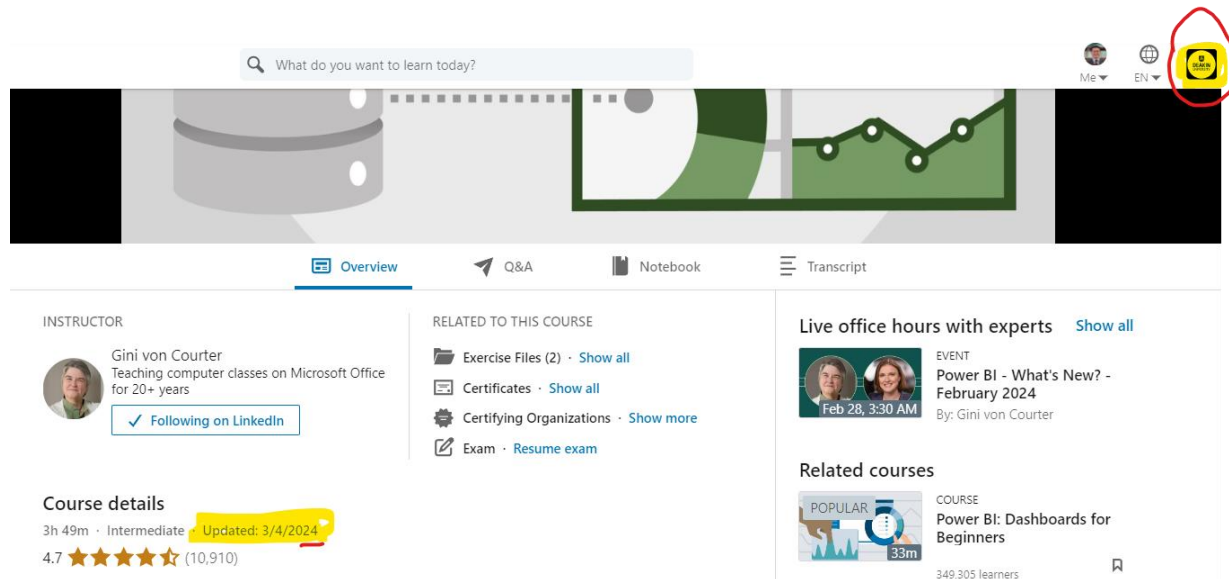
GET STARTED WITH POWER BI

Tasks: Navigating on and getting familiar with Power BI service site



1. Follow the instructions in the video lesson 'Introduction' and 'Get started with Power BI':

<https://www.linkedin.com/learning/power-bi-essential-training-17362720>



2. Let your tutor know if you need assistance (or see <https://docs.microsoft.com/en-us/power-bi/consumer/>)

3. Now, answer the **questions** on the Learning site (see Chapter Quiz: 5 questions) or below questions (copied from the Learning site for better discussion).

Q1. If you are an independent user and you do not have an organizational email address, can you still sign up for a Power BI trial subscription?

- A. No, unless you contact Microsoft to approve your request.
- B. Yes, you can get a trial subscription to Office 365, and then use that account to sign up for a Power BI trial
- C. Yes, because a trial subscription for Power BI does not have the organisational email requirement of a full subscription.
- D. No, because Power BI is limited to individuals with organisational/educational email addresses.

Q2. What will you find in Favourite & Frequents on your Power BI service home page?

- A. Items you have set as favourites as well as dashboards and reports
- B. items you have set as favourites, or have most recently used
- C. items you have set as favourites, or have used often by count
- D. items you have set as favourites and workplaces you have created.

Q3. On a basic level, how do you use Power BI?

- A. To create reports you can share directly with other users
- B. To create models from which you will utilize other Power BI features
- C. To create datasets if your company does not have data stored in the cloud
- D. To create reports from which you will utilize other Power BI features

Q4. Renata is a business analyst who spends significant time modelling and transforming data. Which Power BI tool, a free download software, will Renata most often be using?

- A. Power BI service
- B. BI Desktop
- C. Power BI Pro
- D. Power BI Mobile

Q5. You are trying to sign up for a free 60 day trial of Power BI Pro with your personal email, yourname@gmail.com. Why won't you be able to sign up for the free trial? (Note: Deakin students have access to Power BI tool, only full-time Deakin staff can request for Pro version)

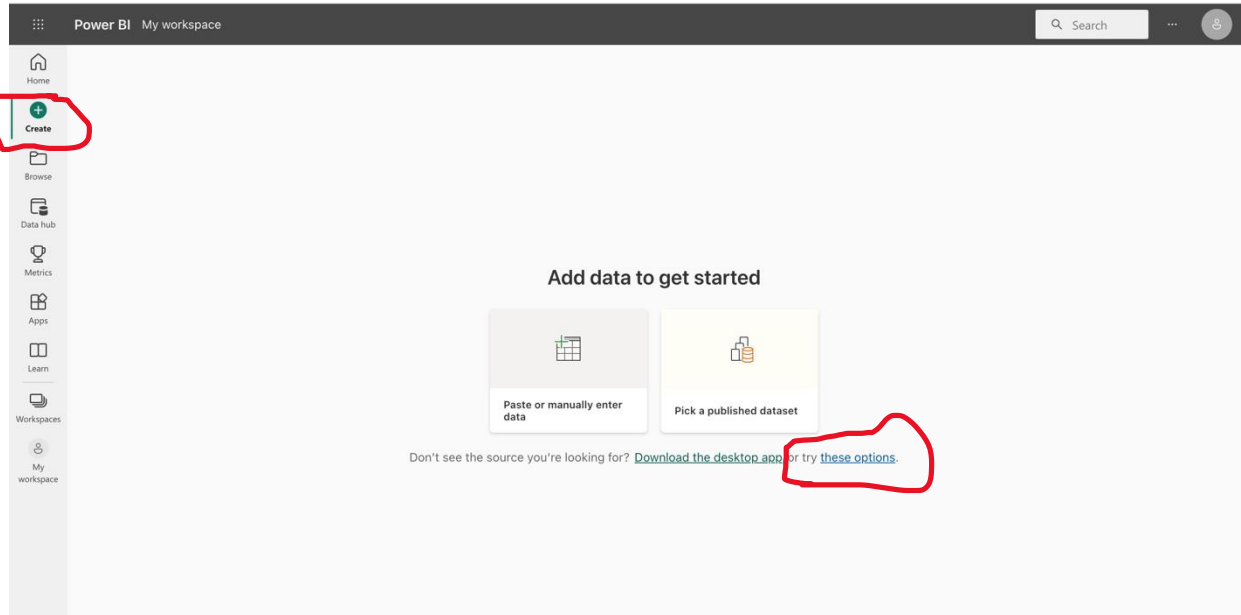
- A. Your email address has to be a business email, not a personal email address.
- B. You included your name in the email address; only an organisation's name can be used.
- C. You are currently using the free version of the Power BI service, so you are not eligible for the trial.
- D. You do not have any Microsoft accounts connected to your email address

GET DATA

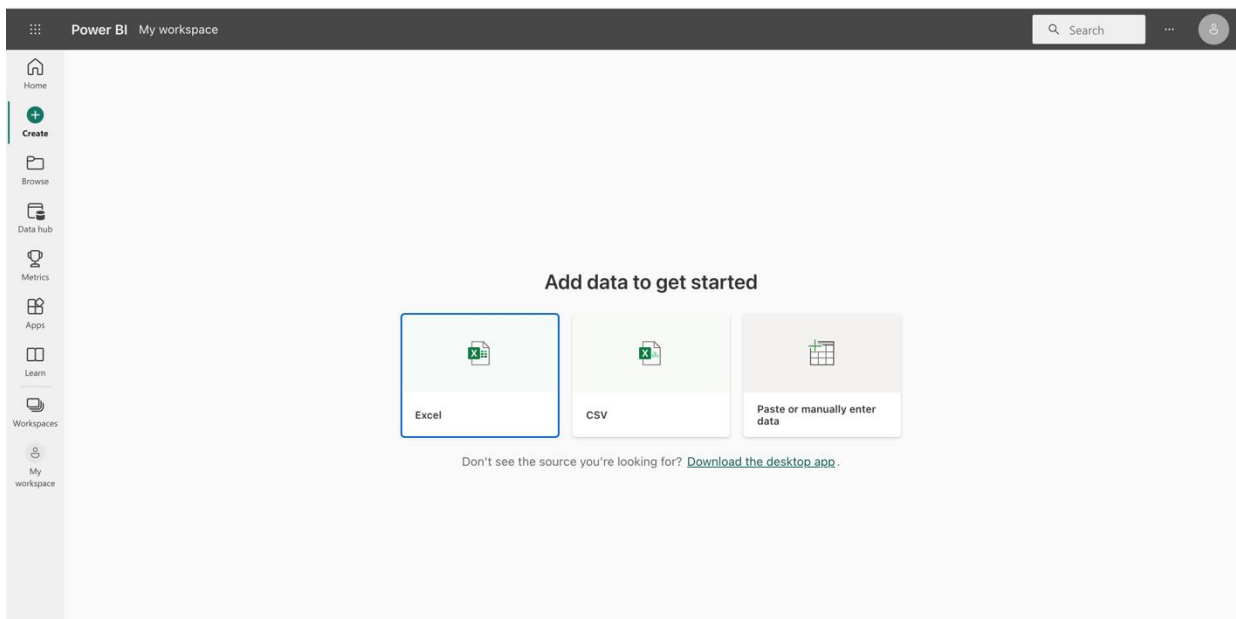
A **dataset** is a collection of data that Power BI uses to create its visualisations. Datasets can also be a combination of many different sources, which you can filter and combine to provide a unique collection of data (a dataset) for use in Power BI. Filtering data before bringing it into Power BI lets you focus on the data that matters to you. For example, you can filter your contact database so that only customers who received emails from the marketing campaign are included in the dataset. You can then create visuals based on that subset (the filtered collection) of customers included in the campaign. Filtering helps you focus your data—and your efforts. After you have a dataset, you can create visualizations that show different portions of it in other ways, and gain insights based on what you see. That's where reports come in.

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	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	96.5	2896
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
2131	2005	1	January	1/1/2005	2,921	94.2	2827
2132	2005	2	February	2/1/2005	2,699	96.4	2892
2133	2005	3	March	3/1/2005	3,024	97.5	2926
2134	2005	4	April	4/1/2005	3,037	101.2	3037
2135	2005	5	May	5/1/2005	3,231	104.2	3127
2136	2005	6	June	6/1/2005	3,163	105.4	3163
2137	2005	7	July	7/1/2005	3,119	100.6	3018
2138	2005	8	August	8/1/2005	3,156	101.8	3054
2139	2005	9	September	9/1/2005	3,439	114.6	3439

- Navigating on the 'Get data' interface.
- Click on **"create"** and go to "try **these options**", as shown in the image below.
- Then, navigate through different types of Power BI data sources. Watch the video lesson: '2. Get Data' <https://www.linkedin.com/learning/power-bi-essential-training-17362720>



- Then you can select either Excel, CSV or Paste manually.



- Now, answer the **questions** on the Learning site (see Chapter Quiz: 5 questions)

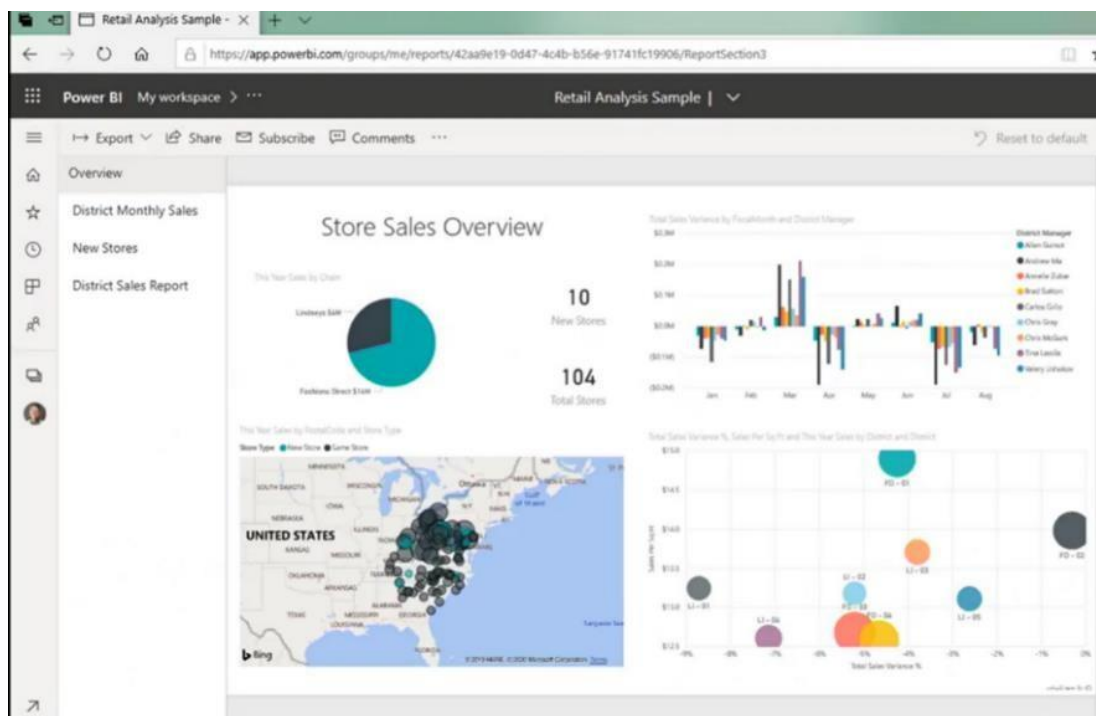
CREATE A REPORT WITH VISUALISATION

Before we create a report with visualisation, review the following basic BI concepts:

Visualisations, reports, tiles (Source: Microsoft Power BI)

- **Visualisation:** a visual representation of data, like a chart, a color-coded map, or other interesting things you can create to represent your data visually. Power BI has all sorts of visualisation types, and more are coming all the time. The goal of a visual is to present data in a way that provides context and insights, both of which would probably be difficult to discern from a raw table of numbers or text.

- **A report** is a collection of visualisations that appear together on one or more pages. Just like any other report you might create for a sales presentation or write for a school assignment, a report in Power BI is a collection of related items. You can create reports in the Power BI service.



Tasks:

1. Follow the instructions in the video lesson '3. Create a Report with Visualisations':

<https://www.linkedin.com/learning/power-bi-essential-training-17362720>

2. Let your tutor know if you need assistance.

3. Now, answer the **questions** on the Learning site (see Chapter Quiz).

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