

AN INTRODUCTION TO POWER BI AND THE BASICS OF BUSINESS INTELLIGENCE

1 - What is Power BI and its Importance in Data Analytics?

Power BI is a powerful business analytics tool developed by Microsoft that enables users to visualize their data and share insights across their organizations or embed them in an app or website.

It simplifies complex data analysis, allowing users to make informed decisions by transforming raw data into visually appealing and interactive dashboards and reports.

Power BI is widely used in various industries for its ability to handle large datasets, integrate with multiple data sources, and provide real-time analytics.

For businesses and individuals, it is an invaluable tool for identifying trends, monitoring performance, and driving data-driven strategies.

- Power BI is a business analytics tool that transforms raw data into interactive dashboards and reports.
- Simplifies complex data analysis for informed decision-making.
- Integrates with various data sources and supports real-time analytics.
- Widely used in industries to identify trends and monitor performance.
- Helps businesses implement data-driven strategies effectively.

2 - A Brief Overview of its Main Components

Power BI is composed of three main components: Power BI Desktop, Power BI Service, and Power BI Mobile.

Power BI Desktop is the foundational application where users can connect to data sources, clean and transform data, and create detailed reports and dashboards.

Power BI Service is an online platform that allows users to publish, share, and collaborate on reports in real-time.

Power BI Mobile provides on-the-go access to dashboards and reports, enabling users to stay connected and make data-driven decisions from anywhere.

Together, these components provide a comprehensive ecosystem for end-to-end business intelligence.

- **Power BI Desktop:** The primary tool for creating and designing reports and dashboards.
- **Power BI Service:** An online platform for publishing, sharing, and collaboration.
- **Power BI Mobile:** On-the-go access to dashboards and reports.
- Seamless integration between components ensures an end-to-end BI solution.
- Supports collaboration and accessibility for data insights across devices.

3 - Installing Power BI Desktop

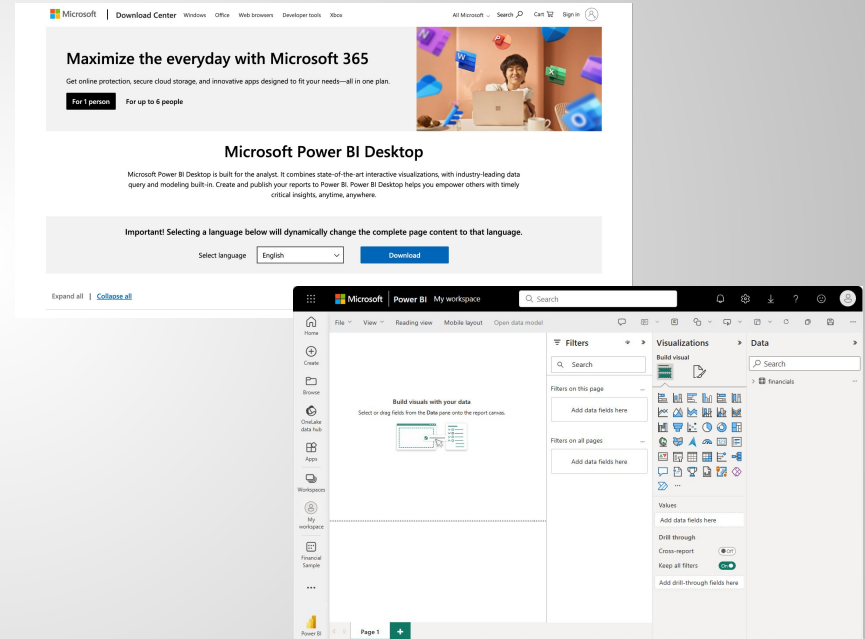
Head to the Microsoft Power BI download area by following this link: [Power BI Desktop](#).

Download Power BI Desktop and select your own personal language settings.

Follow the on-screen instructions to complete and finalise your download and installation.

Proceed by either signing in with a Microsoft account, or skip this for now if you wish to head straight into importing data.*

You're ready to begin with your Power BI journey!



**Power BI only allows work emails to be used for accounts, you cannot sign in using a personal email account.*

4 - Importing a Dataset

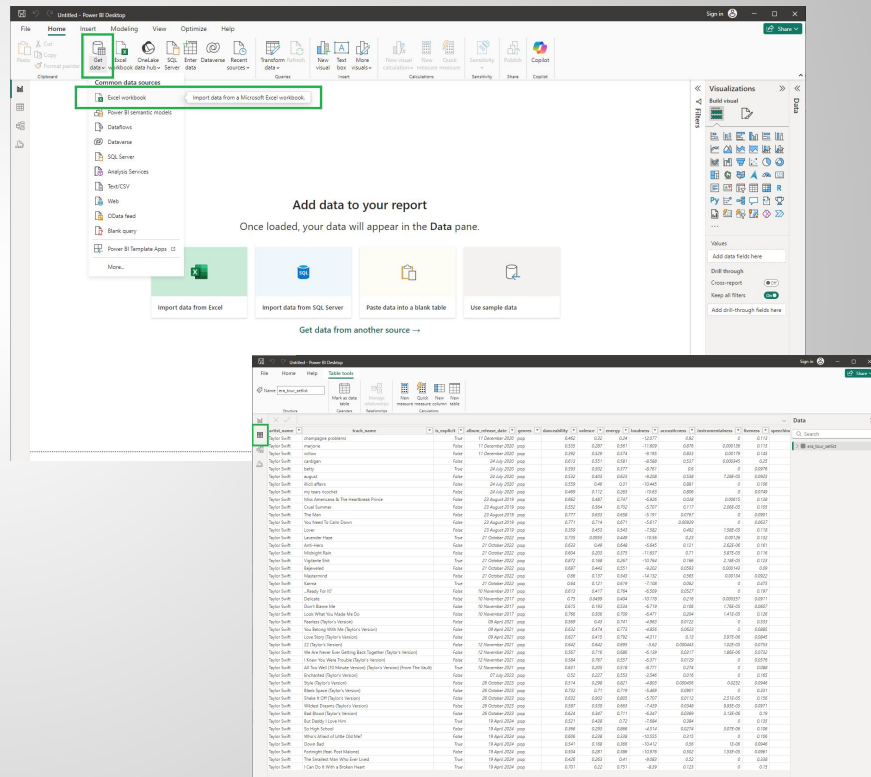
Power BI allows multiple sources of data, however the easiest and most used is .csv and Excel files.

Make sure you have a dataset you would like to use.

Across the upper ribbon on the workspace, you will see the button 'Get Data'. Click this and select .csv or Excel (depending on your data type).

You can choose to directly import your data, or transform it in Power Query.

Once loaded, you will see the data populate on the right of the screen, as well as within the 'Table View' tab on the left.



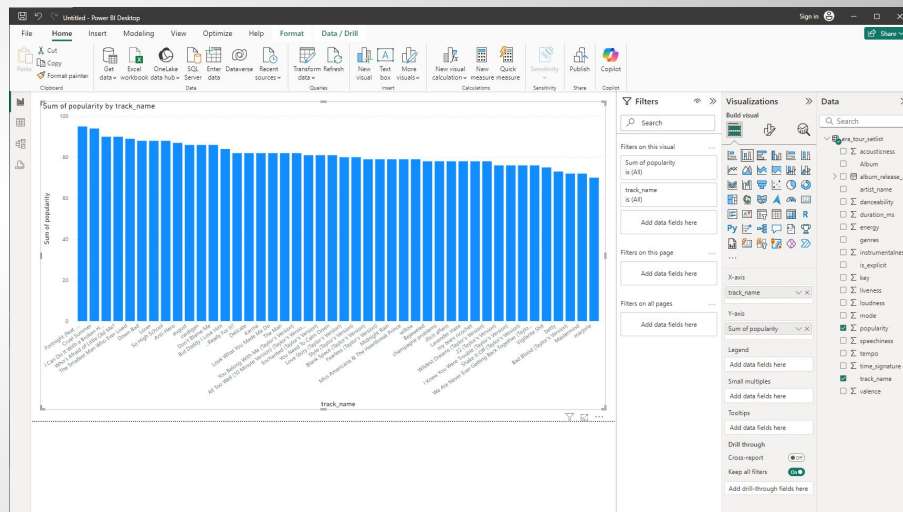
5 - Creating Your First Visual

Within the workspace, you will see ‘Visualisations’ on the right hand side, select an option from here. You can select data cards, bar charts, line graphs plus more!

By expanding your data in the ‘Data’ view on the far right, you can select options from a range of columns within your dataset.

In the image example here, we have selected the ‘track_name’ column as our X-Axis value, and the sum of ‘popularity’ column as our Y-Axis.

This gives us a bar graph showing popularity of each track name on the Taylor Swift Era’s Tour dataset!



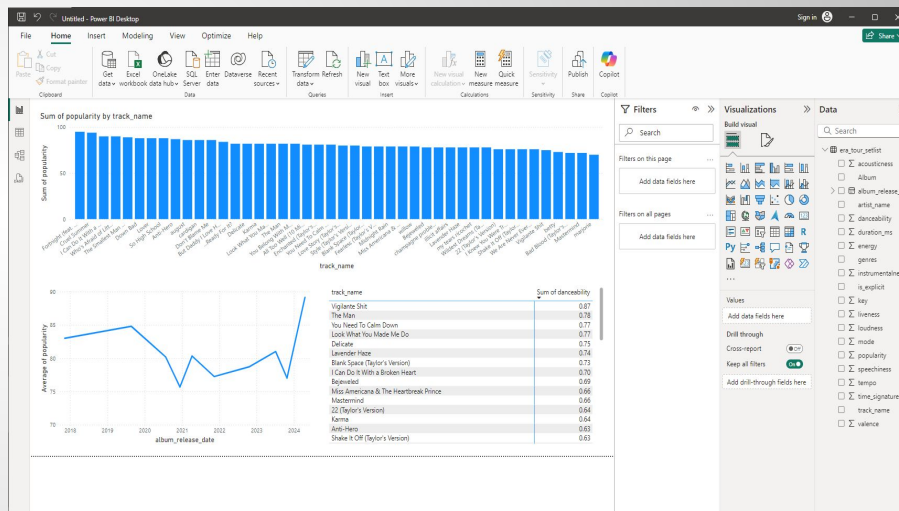
6 - Designing Your Dashboard

A dashboard is classified in BI as a collection of visuals for the purpose of analysis data.

Have a play around with some of the visualisation tools to build your very own multi-visual dashboard!

In the image example here, we have added a line chart showing popularity over a time period, using the 'album_release_date' column as our X-Axis. We have also added a matrix table to show danceability score of each track and sorted this from highest to lowest.

What visuals will you choose to display?



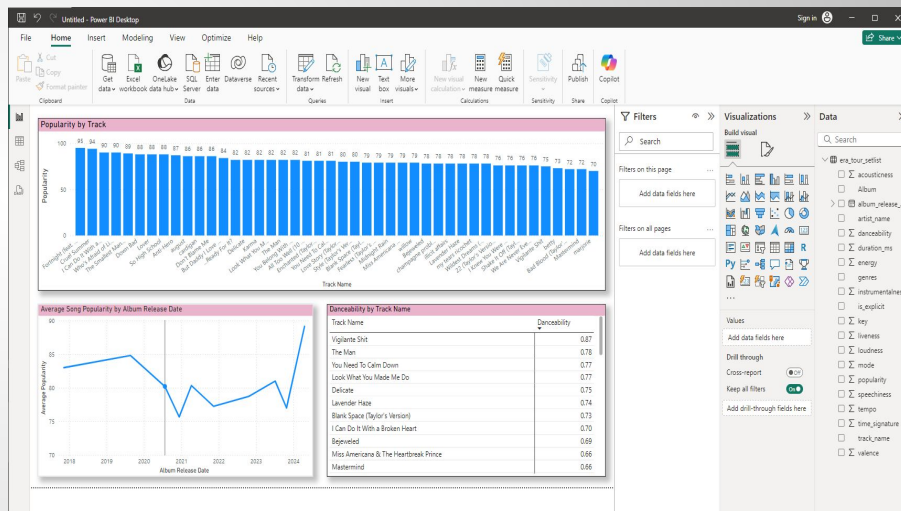
7 - Basics of UI and UX in Dashboard Design

Your audience will thank you for putting time into designing your dashboard and considering UI and UX when you do it!

Adding a title to your visuals, plus renaming your axis are the bare minimum when it comes to a professional looking dashboard design.

In this example I have spent some extra time working on separating the visuals using a simple black border and title background.

Additional tip: Audiences typically read dashboards from top to bottom, from left to right. So take this into consideration when displaying your most important visuals!



8 - Exporting Your Dashboard

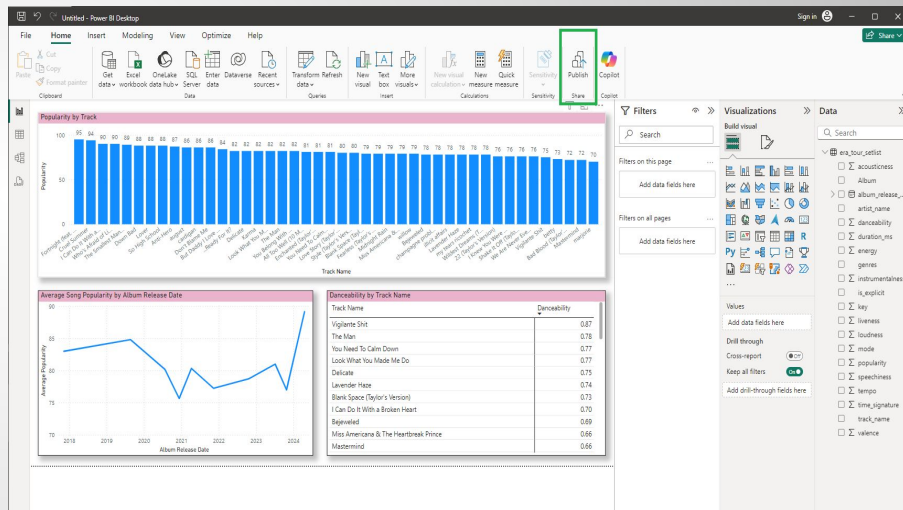
Exporting a dashboard is super easy and can be done in a few clicks!

Remember: You need to be signed in to a Power BI account to do this! You can check if you're signed in, in the top right of the screen.

Clicking 'publish' in the top ribbon will begin the process of uploading your dashboard to your Power BI Service area*.

Log into Power BI Service in your favourite web browser and login using your account credentials.

Once you are logged into Power BI Service, you will see your dashboard in your workspace! From here you can save as a PDF and send it to your boss for extra gold stars!



**Check step 2 to brush up on your knowledge of the difference between Power BI Desktop and Power BI Service!*

9 - Stay up to Date with Aaron the Analyst

Stay up to date using the following mediums!

Tik Tok:

[@Aarontheanalyst](#)

Website:

aarontheanalyst.co.uk