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Part of the Power BI
Bootcamp Series

Microsoft Power BI Bootcamp

Introduction to Business Intelligence & PBI

Instructors:

Nicolás Lagreste Zucchini

Maria Florencia Hourcouripé



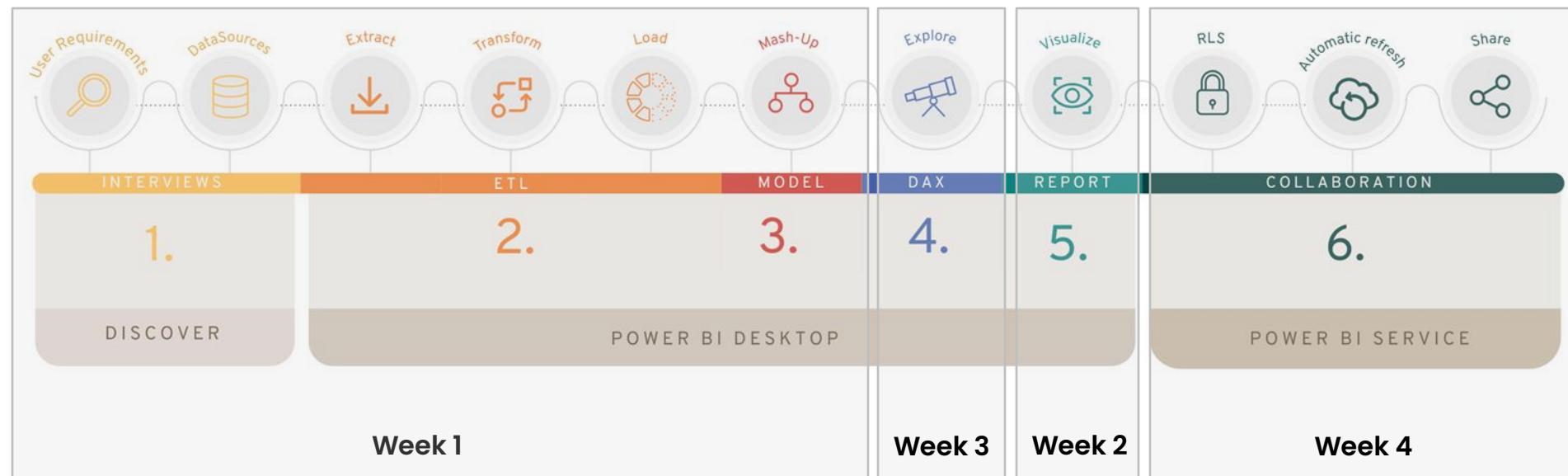


Course Agenda

- **Week 1:** Introduction to Business Intelligence, Power BI and Power Query.
- **Week 2:** Advanced and Interactive Visuals.
- **Week 3:** Calculated measures, columns & custom tables with Power BI Programming Language (DAX).
- **Week 4:** Ways to collaborate and share in Power BI.



Our Method: Flow of Report Development





Instructors

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María Florencia Hourcouripé

Let's Collaborate: Interested in a personalized mentorship or consulting session? Contact us:

- nico@analyticmood.com
- flor@analyticmood.com

Visit Our Website:

- www.analyticmood.com for resources, upcoming events, and blog articles.

analytic mood



Exercise 0.0 – Initial set up

- ✓ To get started, download all the files from:

www.analyticmood.com/resources

- ✓ Ensure all files are downloaded before proceeding.



NOTE: use the latest version of Power BI Desktop.



WEEK 04

Ways to collaborate
and share in Power Bl.





Week 4: Ways to collaborate and share in Power BI.

- How to share your reports or dashboard in Power BI Service.
- How to collaborate with coworkers in workspaces to create meaningful reports and dashboards.
- How to collaborate in Microsoft Teams.
- How to print reports.
- How to publish to the web. This allows you to publish Power BI reports to the whole Internet by embedding visualizations in blog posts, websites, social media, and other online communications.



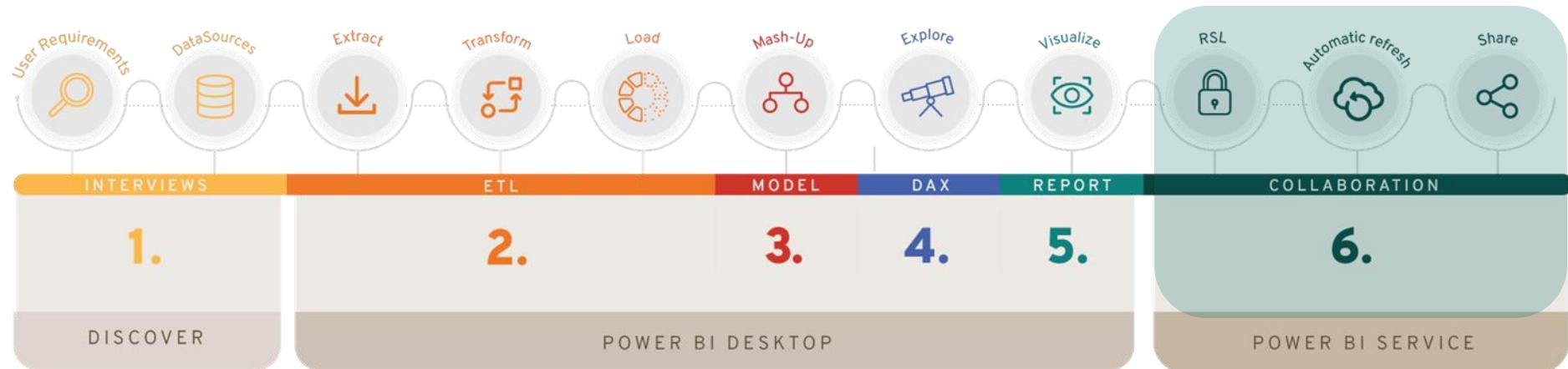


Introduction to Power BI Service

- Review of Week 3 and Exercise 3.5
- Presentation: Introduction to Power BI Service.
- Demo Case 4.1: Log in and Publish the report.
- Exercise Case 4.1
- Q&A



Our Method: Flow of Report Development





Demo 4.1





Introduction to Power BI Service

Before we start, we are going to publish the report created in the previous module. We do it through Power BI Desktop, with the Publish button.

The screenshot shows the Power BI desktop application with a report open. The ribbon at the top has tabs for File, Home, Insert, Modeling, View, Help, and External Tools. The Home tab is selected. Below the ribbon, there are three visualizations: a pie chart titled 'Sales by ClassName' showing 82.02% for Regular, 14.48% for Deluxe, and 3.50% for Economy; a bar chart titled 'Sales Quantity by ProductSubcategoryName' listing items like Computer Monitors, Camera and camcorders, TV and Video, Cell phones, Music, Movies and Audio Books, and a total sales quantity of \$16,900,418; and a line chart titled 'Sales by Year, Month and ClassName' showing monthly sales for Regular, Deluxe, and Economy classes. A green arrow points from the 'Publish' button in the ribbon to the Power BI service interface on the right.

The Power BI service interface shows the published report titled 'O'Reilly Power BI BootCamp'. The ribbon at the top has tabs for Home, Create, Browse, Data hub, Metrics, Apps, Deployment pipelines, Learn, Workspaces, and O'Reilly Power BI BootCamp. The left sidebar shows navigation links for Home, Create, Browse, Data hub, Metrics, Apps, Deployment pipelines, Learn, Workspaces, and O'Reilly Power BI BootCamp. The main area displays the report with three visualizations: a pie chart for Sales by ClassName, a bar chart for Sales Quantity by ProductSubcategoryName, and a line chart for Sales by Year, Month and ClassName. The report is updated to 7/16/22.

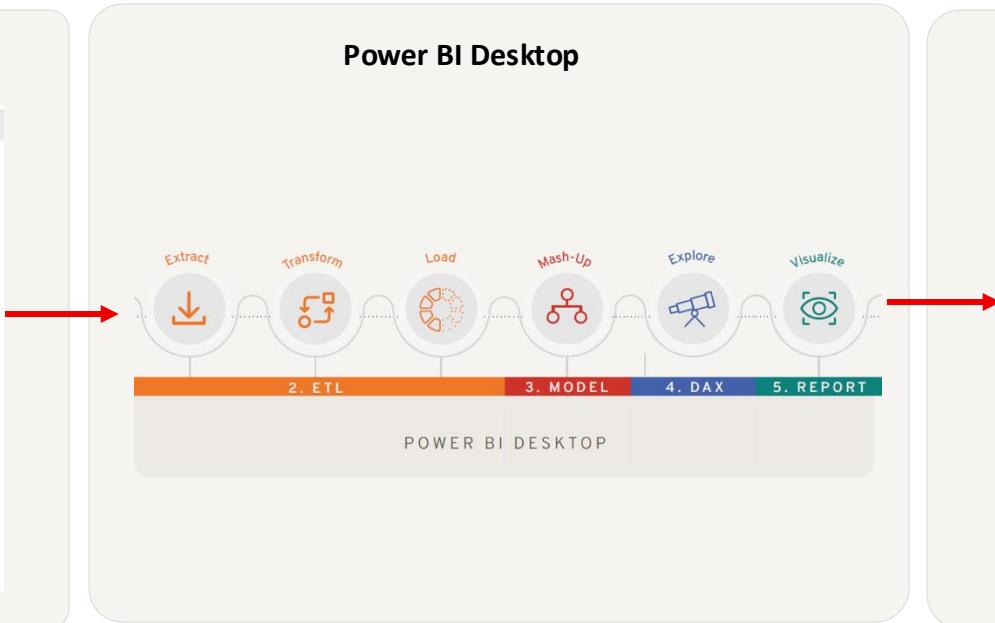


Introduction to Power BI Service

Data Sources

- Excel Workbook
- Text/CSV
- XML
- JSON
- Folder
- PDF
- Parquet
- SharePoint folder
- SQL Server database
- Access database
- SQL Server Analysis Services database
- Oracle database
- IBM Db2 database
- IBM Informix database (Beta)
- IBM Netezza
- MySQL database

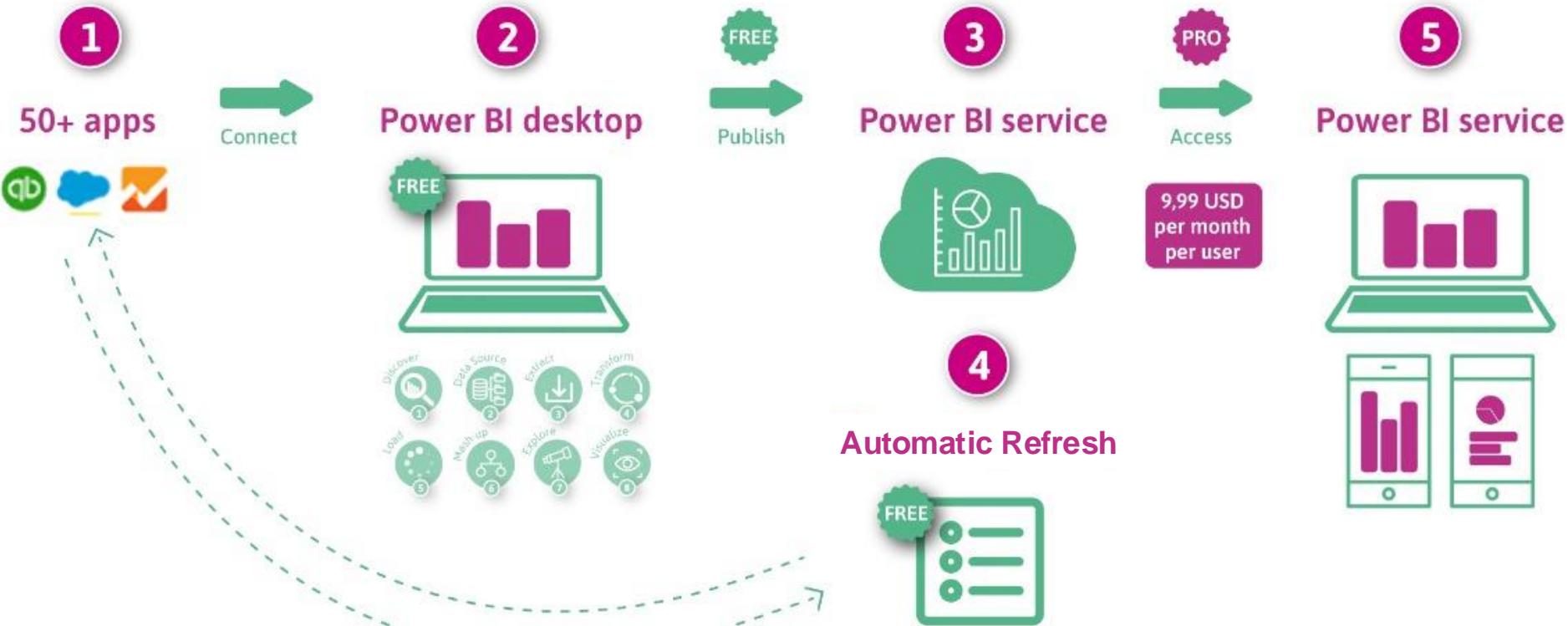
Power BI Desktop



Power BI Service



Power BI architecture

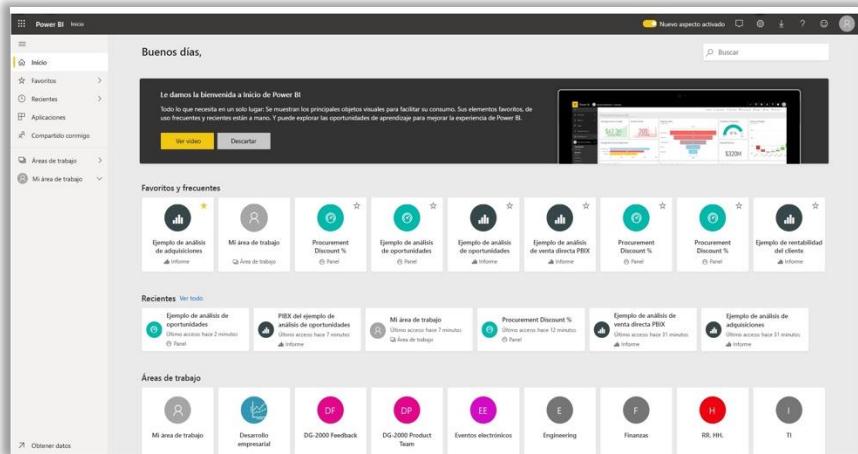




Introduction to Power BI Service

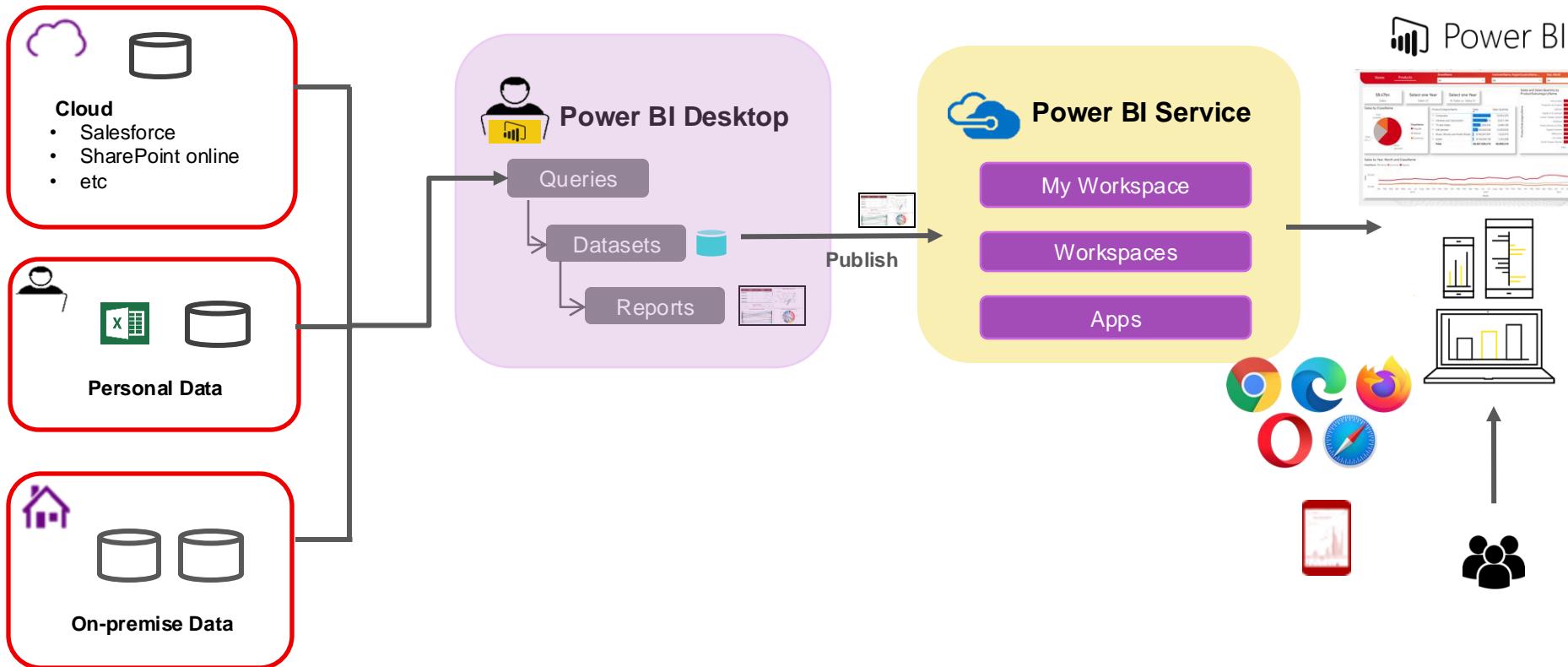
Power BI is a cloud-based business analytics service that allows anyone to:

- Visualize and analyze data faster, more efficiently and more consciously
- Connect users to a wide variety of data
- Use easy-to-use dashboards, interactive reports and engaging visualizations that bring data to life
- Insights from any device
- Collaboration across your organization





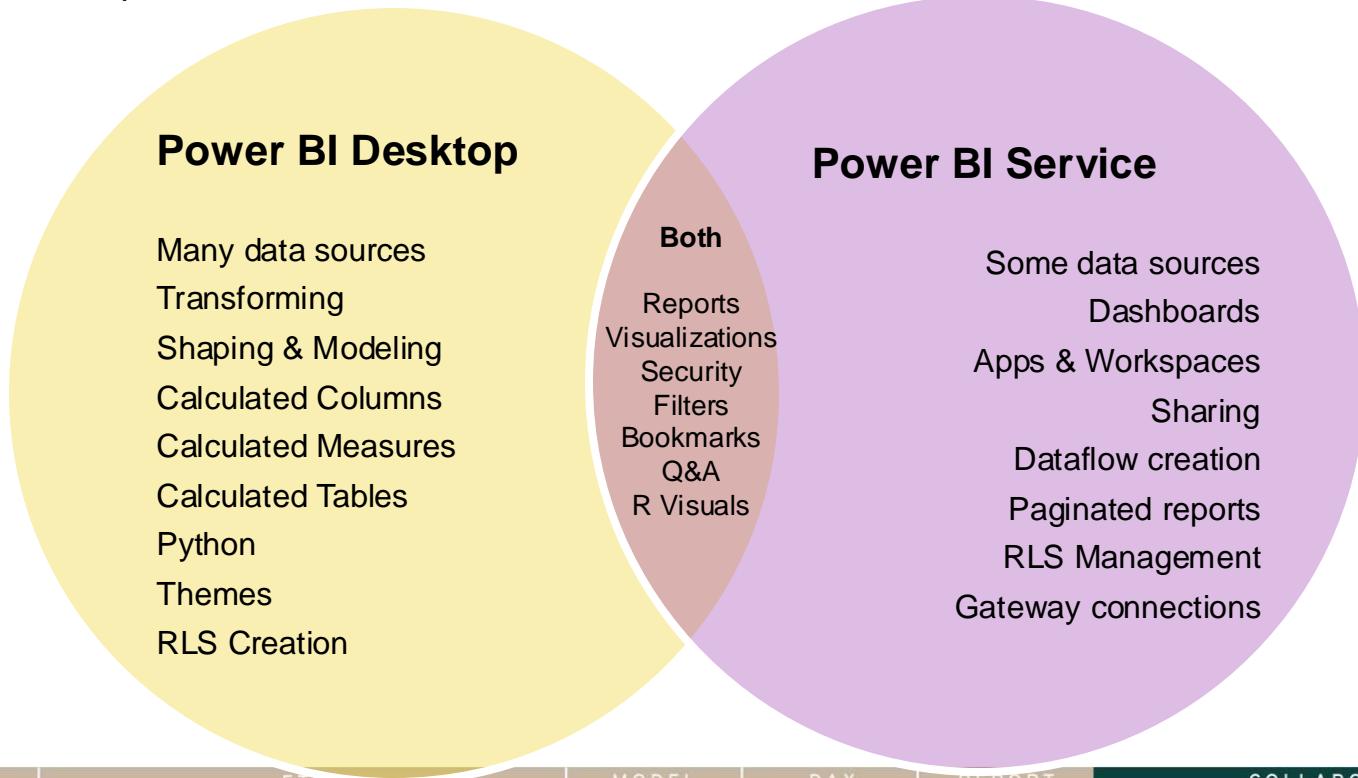
Power BI





Introduction to Power BI Service

Most Power BI report designers who work on business intelligence projects use **Power BI Desktop** to create Power BI reports, and then use the **Power BI service** to collaborate and distribute their reports.





Poll

You can publish a report to the Power BI service without having a Pro account.

- True
- False





Exercise 4.1





Exercise 4.1

- **Goal:** Deliver reports and dashboards to other users
- Open the file ***Exercise4.1.pbix***
- **Save it as “X_Y_Report”.**

X → Initial of name

Y → Initial of surname

- Log in Power BI Desktop with the user:
 - training01@analyticmood.com → (surnames A-K)
 - training02@analyticmood.com → (surnames L-S)
 - training03@analyticmood.com → (surnames T-Z)
- **Password:** AnalyticMood123
- Publish the report in the work area: **My Workspace**
- Validate that it has been uploaded correctly. Go to app.powerbi.com on your browser.



Sharing Reports

- Demo 4.2: How to share reports:
 - ❑ Workspaces
 - ❑ Apps
 - ❑ Types of members and access
 - ❑ Publish to Web



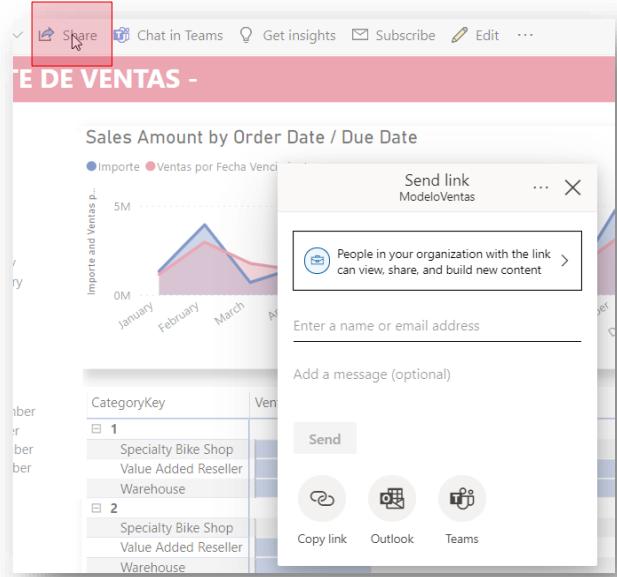
Demo 4.2





Sharing

Sharing is the easiest way to give people access to your reports and dashboards in the Power BI service. You can share with people inside or outside your organization.



When you share a report or dashboard, the people you share it with can view it and interact with it, but can't edit it. The recipients see the same data that you see in the reports and dashboards.

They also get access to the entire underlying dataset, unless row-level security (RLS) is applied to it. The coworkers you share with can reshare with their coworkers if you allow them to.



Sharing

Prerequisites:

- You need a Power BI Pro or Premium Per User (PPU) license, whether you share content inside or outside your organization.
- Your recipients also need Power BI Pro or Premium Per User (PPU) licenses, unless the content is in a Premium capacity.
- If you want to allow recipients to edit a shared report, you have to assign the user a workspace role that allows editing. To learn more about role-level permissions and how to assign roles, read [Roles in workspaces](#).

Where you can share

- You can share reports and dashboards from My Workspace.
- You can share from workspaces other than My Workspace, if you have the Admin or Member role in the workspace. If you have the Contributor or Viewer role, you can share if you have Reshare permissions.
- You can share from the Power BI mobile apps.
- You can't share directly from Power BI Desktop. You publish reports from Power BI Desktop to the Power BI service.



My Workspace

My workspace is your personal sandbox where you can create content for yourself.

You can see your workspaces in Power BI by selecting Workspaces from your navigation pane.

The screenshot shows the Power BI Home page. On the left, the navigation pane includes options like Home, Create, Browse, Data hub, Metrics, Apps, Deployment pipelines, Learn, Workspaces (selected), and My workspace. The main area features a greeting "Good evening, Nicolás" and a tagline "Find and share actionable insights to make data-driven decisions". A "Recommended" section displays five cards with titles like "Getting started with Power BI" and descriptions. Below this is a "Recent" section showing two items: "My workspace" (Workspace, opened now) and "Exercise3.6" (Report, opened 26 minutes ago). There are also "Favorites" and "My apps" tabs, along with search and filter tools at the bottom.



Security: Role's creation

- In Power BI Desktop

The screenshot shows the Power BI Desktop ribbon with the 'Manage roles' icon highlighted (01). A tooltip indicates 'Create, change, or delete security roles.' Below the ribbon, the 'Time Intelligence' feature is active. The main area displays the 'Manage roles' dialog box. On the left, under 'Roles', 'Spain Managers' is selected (02). Under 'Tables', 'Customer' is selected, and a 'Table filter DAX expression' is defined as `[Country] = "Spain"`. A note at the bottom explains: 'Filter the data that this role can see by entering a DAX filter expression that returns a True/False value. For example: [Entity ID] = "Value"'.

Create security roles using RLS.

All rows in tables where the specified DAX condition applies will be filtered.



Security: Role's creation

- In Power BI Service

01

All Content Datasets + dataflows

Name	Type	Owner
Exercise3.6	Report	Oreilly Po...
Exercise3.6	Analyze in Excel	Oreilly Po...
Sales Report	Create report	Oreilly Po...
Sales Report DataSet	Create paginated report	Oreilly Po...
	Create formatted table	Oreilly Po...
	Delete	Oreilly Po...
	Quick insights	Oreilly Po...
	Security	Oreilly Po...
	Rename	Oreilly Po...

02

Row-Level Security

Spain Managers (0)

Members (0)

People or groups who belong to this role

Enter email addresses

Add

Roles created on desktop

Assign the users we want to have that role (filter)



Apps

- It allows the business users to view and interact with the reports shared by Power BI Service.
- Reports and dashboards can be distributed to a larger audience
- Users cannot personalize or create filters for existing reports/dashboards.

Security settings:

Private: Only members of the group will be able to view the contents.

Public: Any member of the organization will be able to see the contents.

The screenshot shows the 'Demos' app setup page in the Power BI service. The 'Setup' tab is selected. Under 'Build your app', there are fields for 'App name *' (set to 'Demos') and 'Description *' (with placeholder 'Enter a summary'). A note indicates '200 characters left'. Below these are sections for 'Support site' (with placeholder 'Share where your users can find help') and 'App logo' (with a placeholder image and 'Upload' and 'Delete' buttons). At the bottom, there's a 'Contact Information' section with a radio button for 'Show app publisher'.

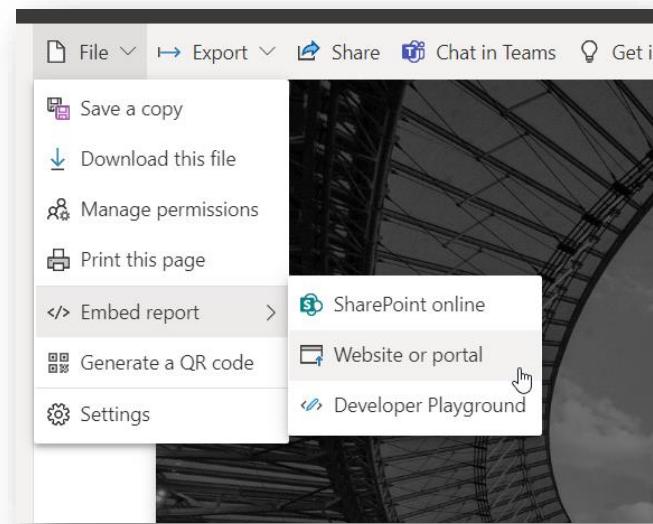


Publish to Web

- New functionality that allows you to embed the created reports in a web page or blog and share the amazing visual effects through your emails or social networks. You can reach millions of users with any device and from anywhere.

Warning

When you use **Publish to web**, anyone on the Internet can view your published report or visual. Viewing requires no authentication. It includes viewing detail-level data that your reports aggregate. Before publishing a report, make sure it's okay for you to share the data and visualizations publicly. Don't publish confidential or proprietary information. If in doubt, check your organization's policies before publishing.





Licencing

Power BI FREE

- Includes 1 GB of storage in Import Mode
- Cannot be shared with other users (reports, dashboard and datasets)
- Sharing reports is only possible in Public Mode
- Does not include Dataflows

Power BI PRO

- All the functionality of Power BI
- Monthly cost of \$10 USD per User / Month (plus applicable taxes)
- Includes 10 GB of storage in Import Mode
- Annual subscription required, more information at

Power BI Premium

- Monthly subscription required
- Has a minimum base cost to cover
- Based on the amount of resources to be used
- This option is recommended from 500 users (cost-benefit)
- Additionally includes Power BI Report Server licensing (on-premise)
- Part of Office 365 subscription

Power BI Embedded

- Licensing according to requirements
- Has a minimum base cost to cover
- Based on the amount of resources to be used and does not require PRO licenses to visualize
- PRO license is required to design / model
- Has limitations compared to the Power BI Free / PRO versions
- Does not include mobile access

Power BI Premium Per User

<https://powerbi.microsoft.com/en-us/pricing/>



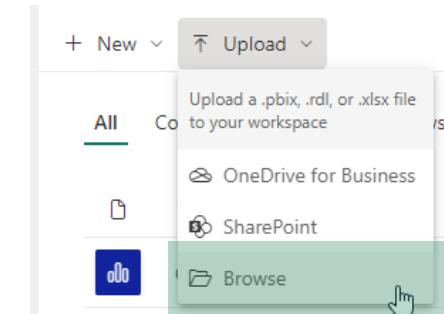
Exercise 4.2





Exercise 4.2

- **Goal:** Interacting and editing
- Access Power BI Service (Remember: app.powerbi.com on your browser).
- Find your report in your “*My Workspace*” and share it with:
 - training@analyticmood.com
- *Challenge 01:* try accessing the workspace: **Oreilly Workspace** and upload your report here.





Full capabilities of Power BI Service

- Demo Case 4.3: exploring the capabilities
- See the difference between a Report and a Dataset.
- Show Dashboards.
- Export data to PDF, PowerPoint
- Connect to the model from Excel
- Republish PBIX File.



Demo 4.3





Report / DataSet

When a PBIX is published in the service, file will be divided into a report and a Data Set:

	Name	Type
	Sales Report	Report
	Sales Report DataSet	Dataset

DataSet = Model. Tables, relations, Dax formulas.

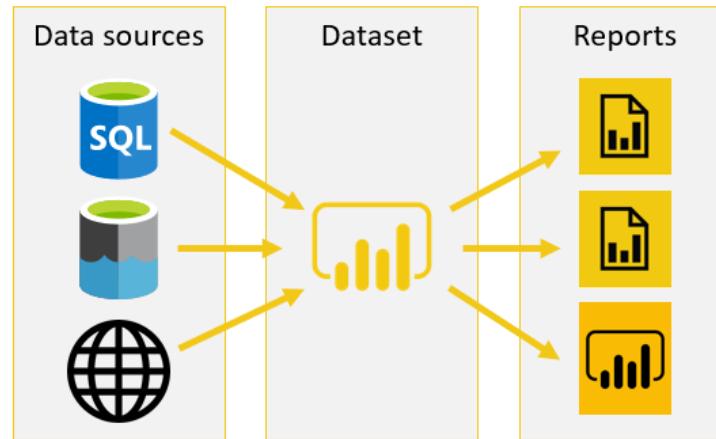
Report: All visual elements: Charts, tables, sliders, etc.



DataSet

A dataset is a collection of data that you import into the tool. Power BI allows you to import and connect to certain types of datasets and put them all in one place.

In the navigation bar, the datasets you have connected to appear under the Datasets heading. Each dataset in the list represents a data source, for example, an Excel workbook in OneDrive, a local SSAS tabular dataset, or a CRM 365 database.





DataSet

The screenshot shows the Power BI desktop application interface. On the left is the ribbon menu with 'Create' selected. A green arrow points from the 'Create' button on the ribbon to the 'Create' section in the main content area. The main content area has three main sections:

- Building your first report**: Contains links to 'Add and prepare your data', 'Auto-create a prefab report', and 'Personalize it to suit your needs'. A green arrow points from this section to a green box labeled 'Create a new dataset by manually entering data'.
- Add data to get started**: Contains two buttons: 'Paste or manually enter data' and 'Pick a published dataset'. A green arrow points from this section to a green box labeled 'Or picking an already published dataset'.
- Data hub**: A section titled 'Discover data from across your org and use it to create reports.' It includes filters for 'All', 'My data', and 'Endorsed in your org'. A green box labeled 'Or picking an already published dataset' is positioned above this section.

Create a new dataset by manually entering data

Or picking an already published dataset



DataSet

Example of creating
a new Dataset

My workspace

+ New ▾ Upload ▾

- Report
Visualize your data
- Paginated report
Build a paginated report
- Dashboard
Build a single-page data story
- Dataset**
Create a dataset to use in a report
- Streaming dataset
Build visuals from real-time data

and we'll show you how



Add data to get started



Excel



CSV



Paste or manually enter
data

Don't see the source you're looking for? [Download the desktop app.](#)

Select a file

Search

Quick access

As you open files from shared
libraries, they'll appear in this
Quick access list.

[More places...](#)



New datasets can be created within the service
by importing data from Excel or CSV files.



DataSet

Settings for Sales Report DataSet

[View dataset](#)

This dataset has been configured by nico@analyticmood.com.

[Refresh history](#)

► Dataset description

► Gateway connection

► Data source credentials

► Parameters

► Scheduled refresh

► Q&A

► Featured Q&A questions

► Endorsement and discovery

► Request access

► Large dataset storage format

► Dataset

Settings configuration

By default the datasets are updated once a day, but this can be modified and refreshed manually or an update schedule can be created.

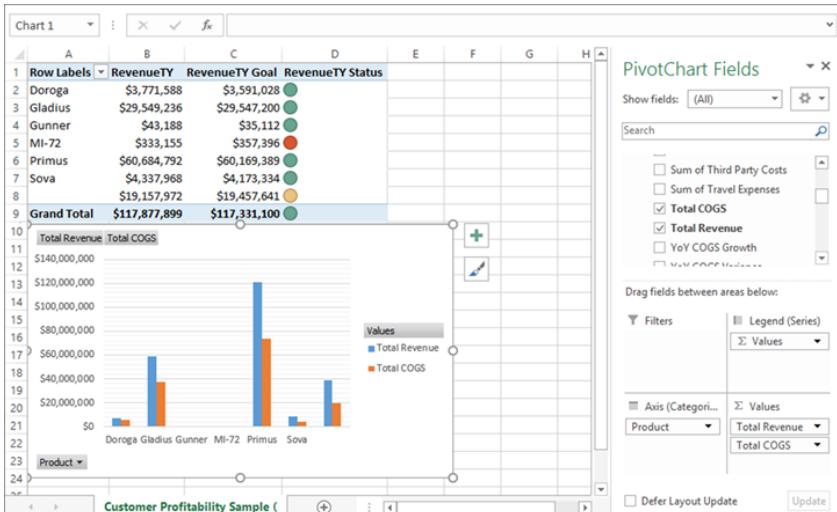
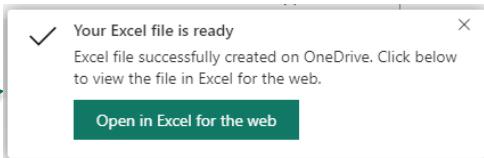
- Refresh History: Displays the update history.
- Gateway Connection: Indicates whether the Gateway is connected and online.
- Data Source Credentials: Shows if the credentials used to connect to the data source are correct.
- Parameters: Displays the parameter settings.
- Schedule Refresh: A refresh schedule can be configured.
- Featured Q&A questions: List of questions to be displayed to those consuming reports based on the dataset.
- Endorsement: Approved or certified dataset.



DataSet

Analyze in Excel

The screenshot shows the Power BI service interface. On the left, there's a sidebar with 'Workspaces', 'Oreilly Power BI Bo...', 'Exercise3.6', 'Sales Report', 'Workbooks' (empty), 'Datasets' (empty), and 'Get data'. A green box highlights the 'Analyze in Excel' button under 'Datasets'. A green arrow points from this button to a modal window.



New functionality that allows us to export the data source in order to analyze it from Excel.



Report

- A Power BI report is one or more pages of visualizations (tables and charts, such as line charts, pie charts, rectangle charts, and more). Visualizations are also called visual objects.
- All visualizations in a report come from a single data set.
- Reports can be created from scratch in Power BI, can be imported with dashboards that colleagues share with you, or can be created by connecting to datasets from Excel, Power BI Desktop, databases, SaaS applications, and content packages.



Report - Edit

- We can edit a report from within the service.
- Remember that not all Power BI Desktop functionalities are accessible from here.

The screenshot shows a Power BI report titled "Sales Analysis" for O'Reilly. The report includes the following components:

- Top Navigation:** Export, Share, Chat in Teams, Get insights, Subscribe, Edit (highlighted with a green box), and three dots.
- Left Sidebar:** Season (All), Date (1/1/2020 to 12/31/2021), Product (All), and Team (Real Madrid, Atletico Madrid, Barcelona, Valencia).
- Key Metrics:** Net Sales (\$99,916) and Units Sold (1,339).
- Category Breakdown:** Football (\$50K), Outerwear (\$35K), Footwear (\$15K).
- Customer Breakdown:** Age groups [0-2] (\$10K), [3-4] (\$7K), [Other] (\$3K), [5-6] (\$2K).
- Product Breakdown:** A table showing sales and quantity for various products like Real Madrid Icon jacket, Joao Felix signed boots, etc.
- Sales by Date:** A line chart showing monthly sales from January 2020 to July 2021.



Report view

File Export Share Chat in Teams Get insights Subscribe Edit ...

Year: All | State: All | Focus mode: All | Department: All | Position: All

194 employee | 78.42K Salary AVG | 7.02 employee evaluation A...

0.00 % Employee vs LY | 2.59 % Salary AVG vs LY | -0.40 % Eval vs LY

Full Name Position Date Boss Department Salary AVG employee evaluation AVG

Full Name	Position	Date	Boss	Department	Salary AVG	employee evaluation AVG
Ait Sidi, Karthikeyan	Eng					
Alagbe, Trina	Tech					
Albert, Michael	Man					
Anderson, Linda	Adm					
Andreola, Colby	Eng					
Bachiochi, Linda	Tech					
Bacong, Alejandro	Eng					
Baczenski, Rachael	Eng					
Beak, Kimberly	Tech					
Beatrice, Courtney	Tech					
Becker, Renee	Eng					
Bernstein, Sean	Eng					
Billis, Helen	Tech					
Blount, Dianna	Tech					
Boutwell, Bonalyn	Man					
Total						

Back to report | EMPLOYEE | BY COUNTRY AND STATE | LAST REFRESH 8/7/2022, 13:48:01 | Filters

LAST REFRESH 8/7/2022, 13:48:01

Filters

INTERVIEWS | ETL | MODEL | DAX | REPORT | COLLABORATION



Report view

File Export Share Chat in Teams Get insights Subscribe Edit ...

Year State Department Position

All All All All

194 employee 78.42K Salary AVG 7.02 employee evaluation A...

0.00 % Employee vs LY 2.59 % Salary AVG vs LY -0.40 % Eval vs LY

Full Name Position State Boss Department

Full Name	Position	State	Boss	Department
Ait Sidi, Karthikeyan	Engineer II	MA	Simon Roup	Information Techn...
Alagbe, Trina	Technician I	CA	Elijah Gray	Production
Albert, Michael	Manager	MA	Janet King	Production
Anderson, Linda	Administrative II	TX	David Stanley	Admin Offices
Andreola, Colby	Engineer II	CA	Alex Sweetwater	Software Engineer
Bachiochi, Linda	Technician I	TX	Brannon Miller	Production
Bacong, Alejandra	Engineer I	TX	Peter Monroe	Information Techn...
Baczenski, Rachael	Engineer I	TX	Alex Sweetwater	Software Engineering
Beak, Kimberly	Technician II	CA	Kelley Spirea	Production
Beatrice, Courtney	Technician II	CA	Elijah Gray	Production
Becker, Renee	Engineer I	MA	Simon Roup	Information Techn...
Bernstein, Sean	Engineer I	TX	Alex Sweetwater	Software Engineering
Billis, Helen	Technician I	TX	Brannon Miller	Production
Blount, Dianne	Technician II	MA	Michael Albert	Production
Bouwell, Bonalyn	Manager	CA	Elijah Gray	Admin Offices
Total				

Full screen Fit to page Fit to width Actual size High-contrast color

Year State Department Position

All All All All

194 employee 78.42K Salary AVG 7.02 employee evaluation A...

0.00 % Employee vs LY 2.59 % Salary AVG vs LY -0.40 % Eval vs LY

Full Name Position State Boss Department

Full Name	Position	State	Boss	Department	Salary AVG	Employee evaluation AVG
Ait Sidi, Karthikeyan	Engineer II	MA	Simon Roup	Information Technology	115,677.60	7.33
Alagbe, Trina	Technician I	CA	Elijah Gray	Production	37,800.00	8.67
Albert, Michael	Manager	MA	Janet King	Production	100,389.00	6.00
Anderson, Linda	Administrative II	TX	David Stanley	Admin Offices	61,789.00	8.67
Andreola, Colby	Engineer II	CA	Alex Sweetwater	Software Engineering	87,904.33	9.67
Bachiochi, Linda	Technician I	TX	Brannon Miller	Production	45,441.33	7.00
Bacong, Alejandra	Engineer I	TX	Peter Monroe	Information Technology	86,213.42	8.00
Baczenski, Rachael	Engineer I	TX	Alex Sweetwater	Software Engineering	88,416.00	5.67
Beak, Kimberly	Technician II	CA	Kelley Spirea	Production	86,942.40	7.67
Beatrice, Courtney	Technician II	CA	Elijah Gray	Production	74,083.75	8.00
Becker, Renee	Engineer I	MA	Simon Roup	Information Technology	81,558.95	5.33
Bernstein, Sean	Engineer I	TX	Alex Sweetwater	Software Engineering	88,416.00	5.33
Billis, Helen	Technician I	TX	Brannon Miller	Production	30,789.33	8.00
Blount, Dianne	Technician II	MA	Michael Albert	Production	71,246.50	7.33
Bouwell, Bonalyn	Manager	CA	Elijah Gray	Admin Offices	66,307.58	7.00
Total					78,422.33	7.02

O'REILLY®



Export data to PDF, PowerPoint

File ▾ Export ▾ Share Chat in Teams Get insights Subscribe Edit ...

Analyze in Excel

PowerPoint

PDF

Year State Department Position

All All All All

194 employee 78.42K Salary AVG 7.02 employee evaluation A...

0.00 % Employee vs LY 2.59 % Salary AVG vs LY -0.40 % Eval vs LY

The screenshot shows a data visualization interface. At the top, there are filters for Year (All), State (All), Department (All), and Position (All). Below the filters are three summary cards: '194 employee', '78.42K Salary AVG', and '7.02 employee evaluation A...'. Underneath these are three smaller cards showing growth percentages: '0.00 % Employee vs LY', '2.59 % Salary AVG vs LY', and '-0.40 % Eval vs LY'. The main area features a map of North America with data points represented by blue circles of varying sizes. Labels on the map include CANADA, UNITED STATES, MEXICO, GUATEMALA, NICARAGUA, ECUADOR, COLOMBIA, VENEZUELA, CUBA, HAITI, PR (U.S.), and SUR. To the right of the map is a detailed table of employee data:

Full Name	Position	State	Boss	Department	Salary AVG	employee evaluation AVG
Ait Sidi, Karthikeyan	Engineer II	MA	Simon Roup	Information Technology	115,677.60	7.33
Alagbe, Trina	Technician I	CA	Elijah Gray	Production	37,800.00	8.67
Albert, Michael	Manager	MA	Janet King	Production	100,389.00	6.00
Anderson, Linda	Administrative II	TX	David Stanley	Admin Offices	61,789.00	8.67
Andreola, Colby	Engineer II	CA	Alex Sweetwater	Software Engineering	87,904.33	9.67
Bachiochi, Linda	Technician I	TX	Brannon Miller	Production	45,441.33	7.00
Bacong, Alejandro	Engineer I	TX	Peter Monroe	Information Technology	86,213.42	8.00
Baczenski, Rachael	Engineer I	TX	Alex Sweetwater	Software Engineering	88,416.00	5.67
Beak, Kimberly	Technician II	CA	Kelley Spirea	Production	86,942.40	7.67
Beatrice, Courtney	Technician II	CA	Elijah Gray	Production	74,083.75	8.00
Becker, Renee	Engineer I	MA	Simon Roup	Information Technology	81,558.95	5.33
Bernstein, Sean	Engineer I	TX	Alex Sweetwater	Software Engineering	88,416.00	5.33
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Blount, Dianna	Technician II	MA	Michael Albert	Production	71,246.50	7.33
Boutwell, Bonalyn	Manager	CA	Elijah Gray	Admin Offices	66,307.58	7.00
Total					78,422.33	7.02

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Create reports based on datasets from different workspaces

- To create a report on an existing dataset, you can start in Power BI Desktop or in the Power BI service. In the service you should go to "My Workspace" or some other workspace you have access to.

Option 01 -Service

01

Oreilly Power BI BootCamp

+ New Create a pipeline

Report Visualize your data

Paginated report

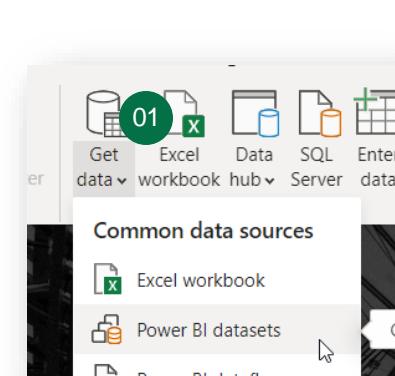
02 Add data to get started

Paste or manually enter data

Pick a published dataset

03

Name	Endorsement	Owner	Workspace	Refreshed
Exercise3.6	-	Oreilly Power BI BootCamp	8/21/22, 1:51:56 PM	
Ventas y Costes FAR10	-	AnalyticMood	8/21/22, 5:33:13 AM	
Team 6	-	Power BI Neueda	8/12/22, 4:10:51 PM	
Team 4	-	Power BI Neueda	8/12/22, 4:23:46 PM	



02

to create reports. [Learn more](#)

Filter by keyword

Filter (1)

Owner	Workspace	Refreshed	Sensitivity
Nicolas Lagre...	Oreilly Power BI Boot...	8/21/22, 1:51:56 PM	-
Maria Florenc...	AnalyticMood	8/21/22, 5:33:13 AM	-
Training Anal...	Power BI Neueda	8/12/22, 4:10:51 PM	-
Training Anal...	Power BI Neueda	8/12/22, 4:23:46 PM	-
Training Anal...	Power BI Neueda	8/11/22, 11:55:29 PM	-



Full practice with a connection to SharePoint and how scheduled updates work.

- Demo 4.4:
- Full practice connecting to SharePoint from Power BI Desktop
- Publish in Service of Power BI
- Configure the automatic refresh of the report.



Demo





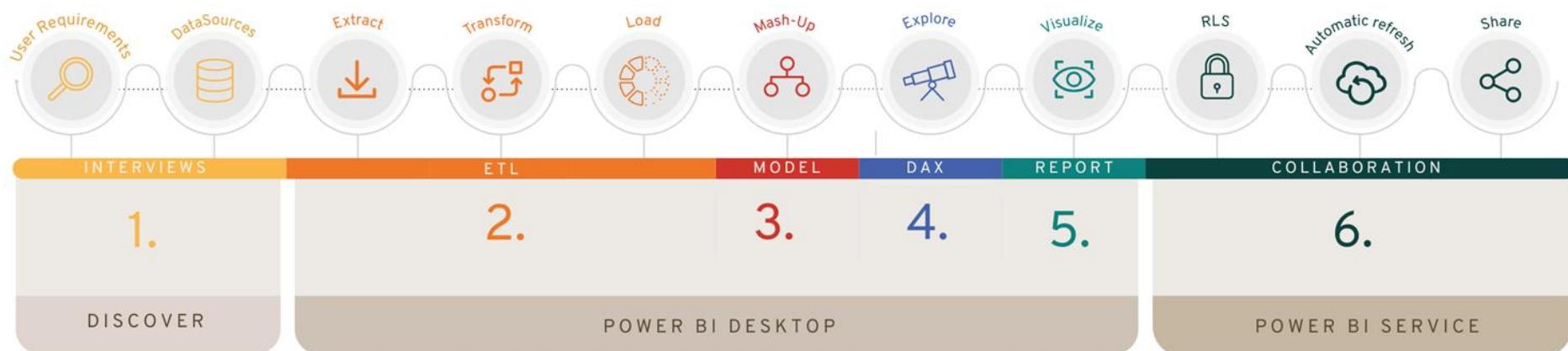
FINAL DEMO

Full example to recap flow of development





Our Method: Flow of Report Development



Interviews

Understand processes, needs and data sources



- Where are our employees located?
- Which is the position and department with the highest salary and evaluation?
- Salary and performance evaluation through years



Interviews

Understand processes, needs and data sources



- Excel Workbook
- Text/CSV
- XML
- JSON
- Folder
- PDF
- Parquet
- SharePoint folder
- SQL Server database
- Access database
- SQL Server Analysis Services database
- Oracle database
- IBM Db2 database
- IBM Informix database (Beta)
- IBM Netezza
- MySQL database

- Share Point

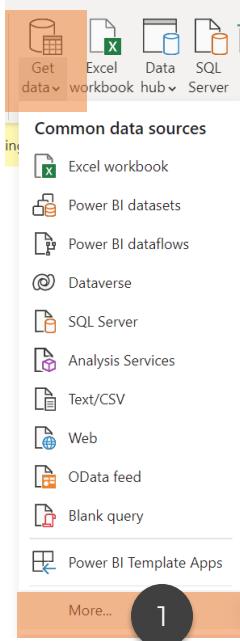


Power BI Desktop: Power Query

Clean and transform data sources



Connection to
SharePoint
folder



Get Data

share x

All

All

2

SharePoint folder

SharePoint Online List

SharePoint list

File

Online Services

Other

SharePoint folder

Site URL (?)

https://biapps.sharepoint.com/sites/Cursos

3

URL SharePoint Site

OK

Cancel



Power BI Desktop: Power Query

Clean and transform data sources

Extract



Filter the
specific file

https://biapps.sharepoint.com/sites/Cursos

Content	Name	Extension	Date accessed	Date modified	Date created	Attributes
Binary	HHRR.xlsx	.xlsx	null	11/02/2022 18:24:34	11/02/2022 18:24:34	Record

The data in the preview has been truncated due to size limits.

4

Combine > Transform Data Cancel

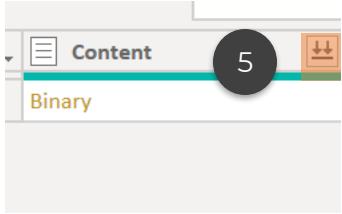


Power BI Desktop: Power Query

Clean and transform data sources



Filter the specific file



Combine Files

Select the object to be extracted from each file. [Learn more](#)

Sample File: First file

- Display Options ▾
- Parameter1 [3]
 - Employee
 - Performance evaluation
 - Salary

Salary

ID Empleado	Salary	Date
1205033102	26536	01/01/2018
1211051232	27684	01/01/2018
1204032927	28153	01/01/2018
1308060366	28865	01/01/2018
1408069882	29135	01/01/2018
1202031618	30150	01/01/2018
1001735072	30600	01/01/2018
1011022887	31152	01/01/2018
1304055987	32015	01/01/2018
1107027392	32400	01/01/2018
1302053339	32615	01/01/2018
1305057440	33015	01/01/2018
1203032357	34126	01/01/2018
1309061015	34200	01/01/2018
1211050793	55146	01/01/2018
1311063114	42974	01/01/2018
1406068293	36784	01/01/2018
711007713	36900	01/01/2018
10110228814	37156	01/01/2018
10110228813	37800	01/01/2018

Skip files with errors

6

OK Cancel

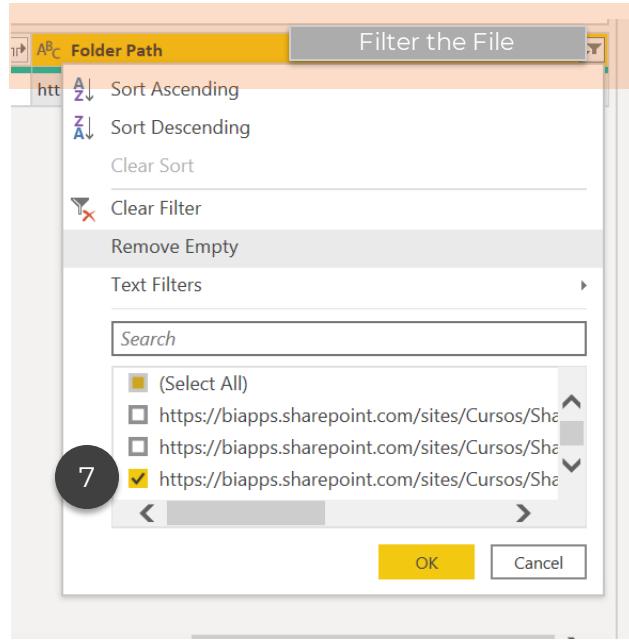


Power BI Desktop: Power Query

Clean and transform data sources



Filter the specific file





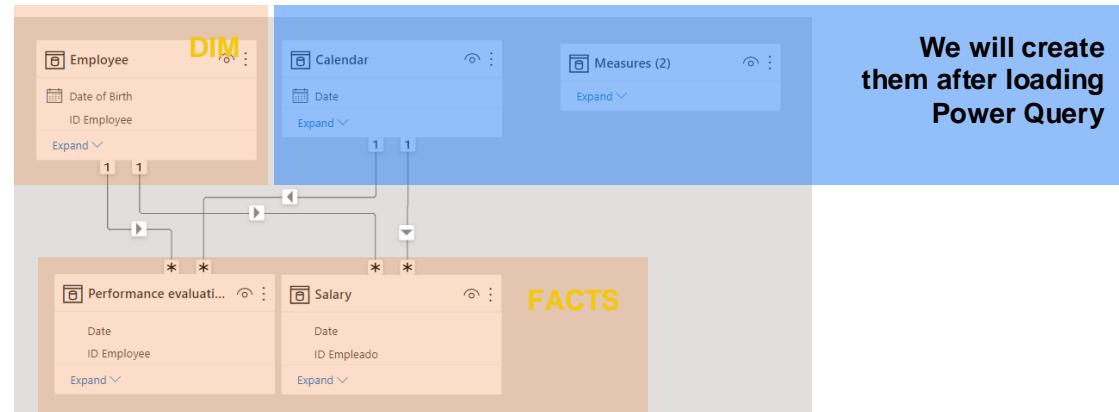
Power BI Desktop: Power Query

Clean and transform data sources

Transform



Plan the model
and transform
the structure of
data if
necessary.





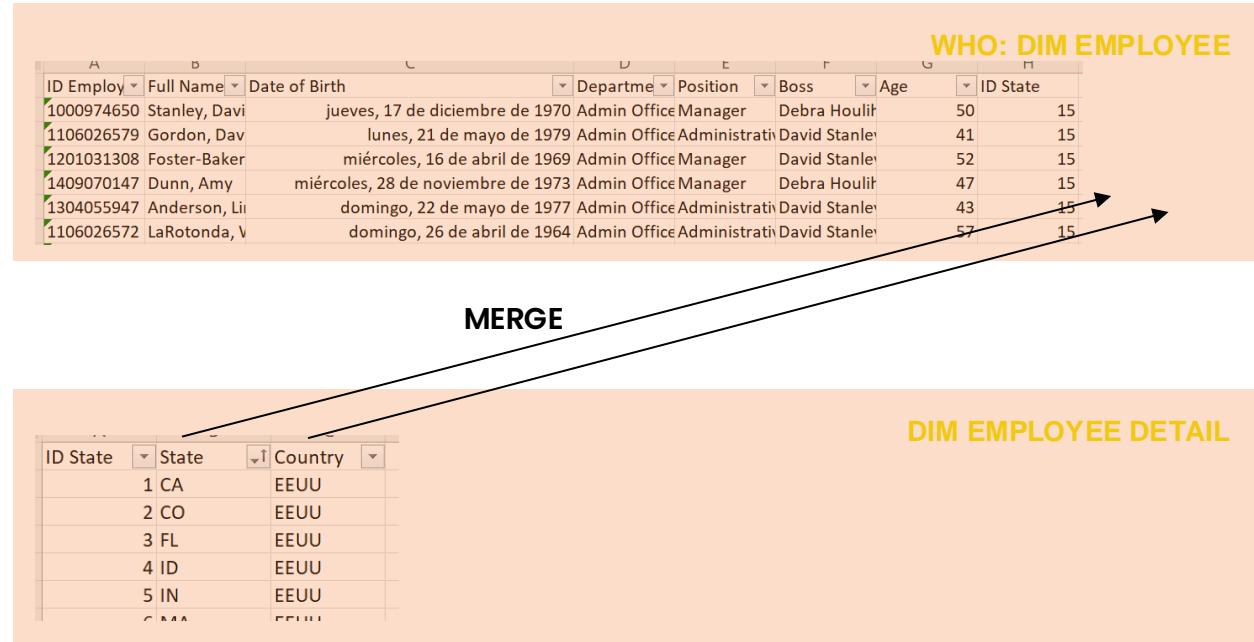
Power BI Desktop: Power Query

Clean and transform data sources

Transform



Plan the model
and transform
the structure of
data if
necessary.





Power BI Desktop: Power Query

Clean and transform data sources

Transform



Plan the model
and transform
the structure of
data if
necessary.

The screenshot shows the Power BI Desktop interface with the Power Query Editor open. In the main area, there is a 'Merge' step between two tables: 'Employee' and 'State'. The 'Employee' table contains data for employees like Stanley David and Gordon David. The 'State' table contains data for states like CA, CO, FL, ID, and IN. A context menu is open over the 'State' table, with the following options visible:

- Copy
- Paste
- Delete
- Rename
- Enable load
- Include in report refresh

Callout 1 points to the 'Transform' tab in the ribbon bar at the top. Callout 2 points to the 'Merge' step in the main workspace. Callout 3 points to the 'Include in report refresh' checkbox in the context menu.

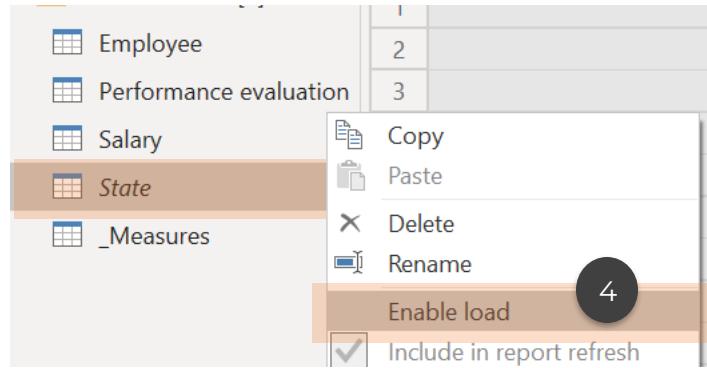


Power BI Desktop: Power Query

Clean and transform data sources



Plan the model
and transform
the structure of
data if
necessary.

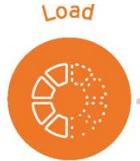




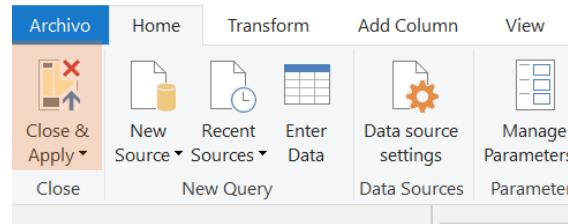
Power BI Desktop:

Power Query

Clean and transform data sources



**Load data to
Power BI**





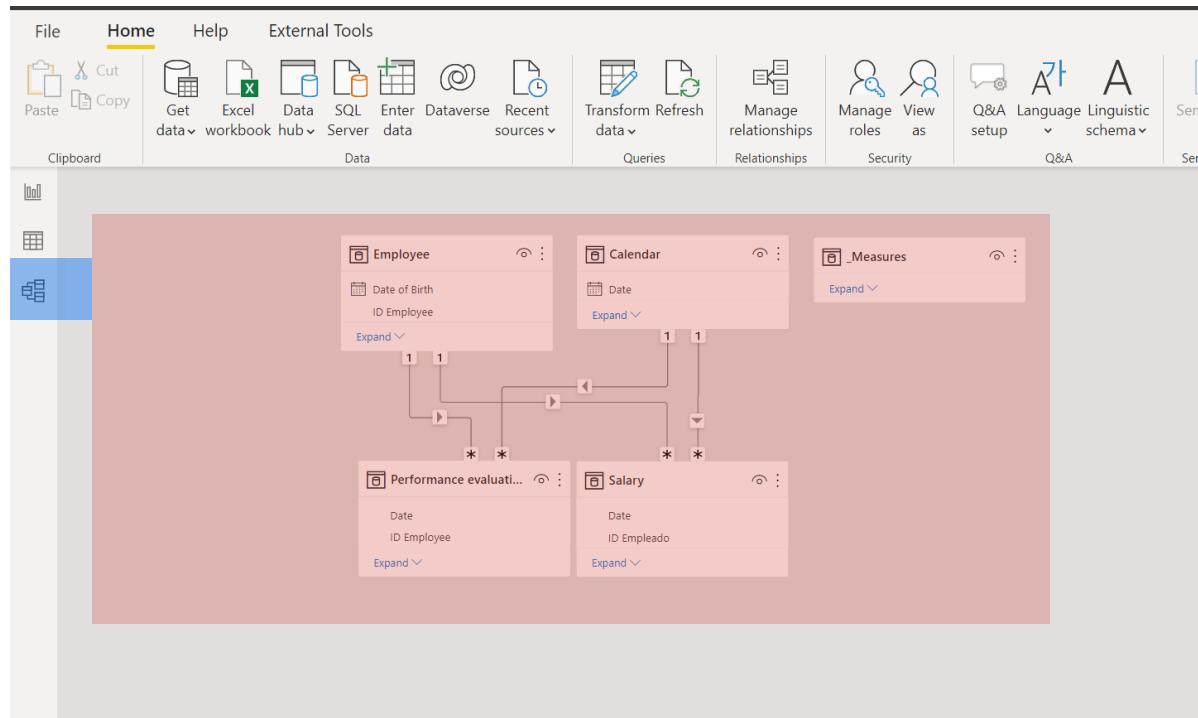
Power BI Desktop: Model

Mash-Up tables to create a model that allowed different analysis



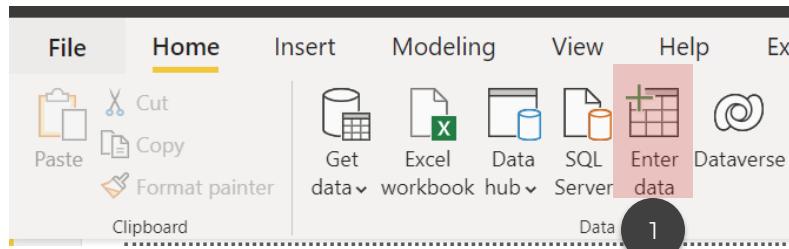
Create:

- Calendar
- _Measures
- Make the relations





Create Measure table



Create Table

A screenshot of the 'Create Table' dialog box. At the top, there is a table with one row labeled '1' and two columns: 'Column1' and '+'. Below the table is a large empty area for defining columns. At the bottom, there is a 'Name:' input field containing 'Measure' (circled with a black number '2'), and three buttons: 'Load' (yellow), 'Edit' (white), and 'Cancel' (white).



Create Calendar table

The screenshot shows the Power BI desktop interface. The ribbon at the top has tabs: File, Home (selected), Help, External Tools, Table tools, Column tools, and Calculations. Under the Home tab, there are icons for Paste, Cut, Copy, Get data (with sub-options for Excel workbook hub, Data, SQL Server, and Enter data), Recent sources, Transform data (with sub-options for Refresh data, Manage relationships, and Relationships), and New (with sub-options for measure, measure column, and table). A red circle labeled '1' highlights the 'New table' icon. Below the ribbon, a table named 'Performance appraisal' is displayed with the following data:

ID Employee	Date	Performance appraisal
1211051232	miércoles, 1 de enero de 2020	7
1112030816	miércoles, 1 de enero de 2020	6
1001268402	miércoles, 1 de enero de 2020	10
1012023010	miércoles, 1 de enero de 2020	5
1101023839	miércoles, 1 de enero de 2020	7
1301052347	miércoles, 1 de enero de 2020	7
11010723610	miércoles, 1 de enero de 2020	6

The screenshot shows the Power BI DAX editor. The formula bar contains the following DAX code:

```
1 Calendar_ = ADDCOLUMNS(
2     CALENDAR (min(Salary[Date]),MAX(Salary[Date]) ),
3     "Year", YEAR([Date]),
4     "Month_num", MONTH([Date]),
5     "Month", FORMAT([Date],"mmmm"),
6     "Week",WEEKNUM([Date]))
```

A red circle labeled '2' highlights the first line of the code.



Power BI Desktop: DAX

KPIs to answer business questions



Explore

Structure Formatting Properties Sort Groups Relationships Calculations

X ✓

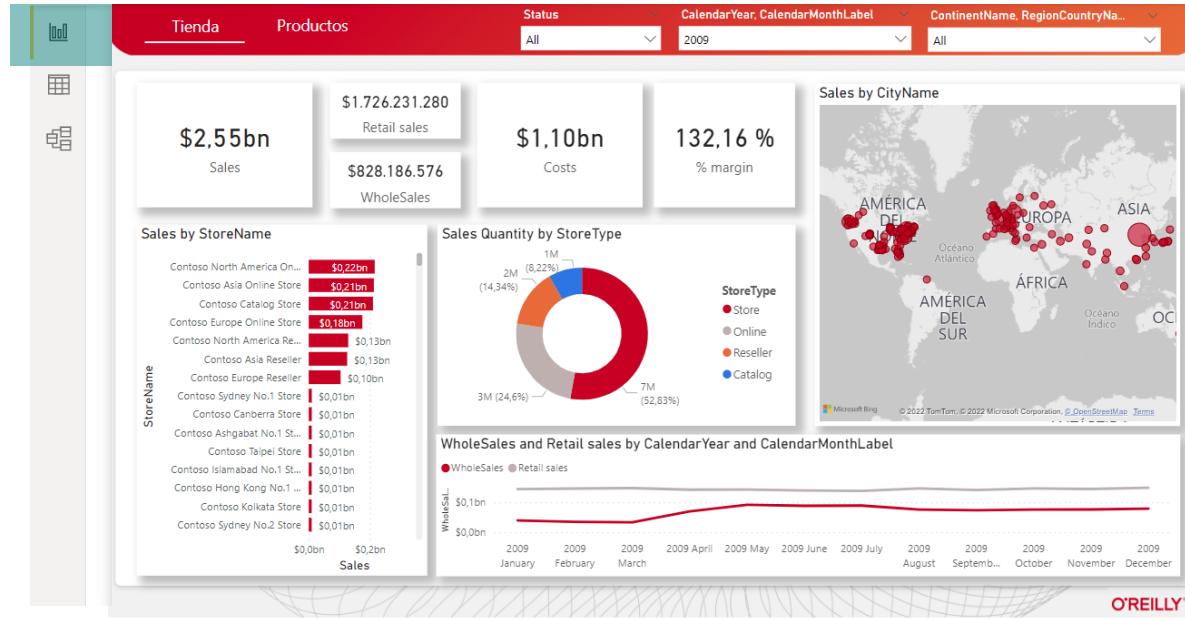
Kind of purchase =
SWITCH(TRUE(),
Sales[SalesQuantity] < 20, "Retail",
"Wholesale")

Quantity	ReturnAmount	DiscountQuantity	DiscountAmount	TotalCost	SalesAmount	ETLLoadID	LoadDate	UpdateDate	Year	Kind of purchase
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2007	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2009	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2009	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2008	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2009	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2008	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2008	Retail
0	\$/.0	0		\$/.3.214,4	6.990,00 €	1	01/01/2010 0:00:00	01/01/2010 0:00:00	2009	Retail



Power BI Desktop: Report

Create visuals for business users to understand their business





Web Service Power BI

Share reports with colleagues

- RSL
- Automatic refresh
- Share

The screenshot shows the Power BI Home interface. At the top, it greets the user with "Good afternoon, Nicolás" and encourages finding and sharing actionable insights to make data-driven decisions. Below this, a "Recommended" section displays three cards: "You frequently open this" (CONTABILIDAD), "Popular in your org" (Report Ventas y Costes), and "You frequently open this" (LaLigaBusinessSchool). The sidebar on the left includes links for Home, Create, Browse, Data hub, Metrics, Apps, Deployment pipelines, Learn, Workspaces, and My workspace. The bottom navigation bar features "Recent" (underlined), "Favorites", and "My apps".



Publish in Service of Power BI

File Home Insert Modeling View Help External Tools

Cut Copy Format painter

Get data Excel workbook hub Server Enter data Data Refresh Data Transform data New visual Text box More visuals New measure Quick measure

Clipboard

1 Publish

2 My workspace

3 Success!

Open 'DEMO RRHH.pbix' in Power BI

Region	Manager	Office	Revenue		
Southwest, Bonita	Manager	CA	Elijah Gray	Admin Offices	66,307.38
Becht, Charles	Manager	MA	Janet King	Production	109,599.00
Bernardette Bisa	Director	MA	Janet King	Production	109,599.00
April, Chasne	Suburbane, L	TV	Denevere Miller	Production	24,724.00
Total					78,422.33

Publishing to Power BI

✓ Success!

Open 'DEMO RRHH.pbix' in Power BI

[Get Quick Insights](#)



Did you know?

You can create a portrait view of your report, tailored for mobile phones. On the [View tab](#), select **Mobile Layout**. [learn more](#)

Got it



Schedule Refresh

The screenshot shows the Power BI service interface. At the top, there are two items: 'DEMO RRHH' (blue icon) and 'DEMO RRHH' (orange icon). Below them is a row of icons: a refresh symbol (circled with a '1'), a copy symbol, and three dots. To the right of these icons is the word 'Dataset'. The entire row is highlighted with a light gray background.

Settings for DEMO RRHH

[View dataset](#)

[Refresh history](#)

► Dataset description

Describe the contents of this dataset.

500 characters left

[Apply](#) [Discard](#)

► Gateway connection

► Data source credentials

☒ Failed to test the connection to your data source. Please retry your credentials. [Learn more](#)

SharePoint (☒) [Edit credentials](#) [Show page view](#)

2



Schedule Refresh

Configure DEMO RRHH

sharePointSiteUrl
https://biapps.sharepoint.com/sites/Cursos

Authentication method
OAuth2

Privacy level setting for this data source
Organizational

3 Sign in Cancel

Scheduled refresh

Keep your data up to date

Configure a data refresh schedule to import data from the data source into the dataset. [Learn more](#)

On

Refresh frequency

Daily

Time zone

(UTC+01:00) Brussels, Copenhagen, I

4

Time

7 00 AM X

11 00 AM X

3 00 PM X

Add another time

Send refresh failure notifications to

Dataset owner

These contacts:



Poll

In power BI Service we can schedule the refresh of the reports daily.

- True
- False





Recommendations for Next Steps

Part of the Power BI
Bootcamp Series

Advanced Learning Path:

- 1) Power BI Bootcamp: Building the Foundations for Power BI
- 2) Power Query: Data Connections and Transformations
- 3) Data Modeling for optimal structure & DAX for calculations
- 4) Visualizations for impactful reporting & Power BI Service

This Bootcamp





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María Florencia Hourcouripé

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- Write your questions in the chat so that we can answer and discuss them together.



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THANK YOU!