

Overview

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This study guide is provided as is. It is not an official study document but my links for the PL-300 exam. I've included links for other non-Microsoft resources in the other links page in this section. Feel free to use this study guide and add to it as you please.

Exam Page

[Exam PL-300: Microsoft Power BI Data Analyst - Certifications | Microsoft Learn](#)

Labs

[MicrosoftLearning/PL-300-Microsoft-Power-BI-Data-Analyst \(github.com\)](#)

[aka.ms/PL-300-Course](#)

Skills measured

- Prepare the data (15-20%)
- Model the data (30-35%)
- Visualize and analyze the data (30-35%)
- Deploy and maintain assets (10-15%)

From <<https://learn.microsoft.com/en-us/certifications/exams/pl-300>>

MS Study Guide

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Study Guide

Exam PL-300: Microsoft Power BI Data Analyst

Purpose of this document

This study guide should help you understand what to expect on the exam and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

Useful links	Description
How to earn the certification	Some certifications only require one exam, while others require more. On the details page, you'll find information about what skills are measured and links to registration. Each exam also has its own details page covering exam specifics.
Certification renewal	Once you earn your certification, don't let it expire. When you have an active certification that's expiring within six months, you should renew it—at no cost—by passing a renewal assessment on Microsoft Learn. Remember to renew your certification annually if you want to retain it.
Your Microsoft Learn profile	Connecting your certification profile to Learn brings all your learning activities together. You'll be able to schedule and renew exams, share and print certificates, badges and transcripts, and review your learning statistics inside your Learn profile.
Passing score	All technical exam scores are reported on a scale of 1 to 1,000. A passing score is 700 or greater. As this is a scaled score, it may not equal 70% of the points. A passing score is based on the knowledge and skills needed to demonstrate competence as well as the difficulty of the questions.
Exam sandbox	Are you new to Microsoft certification exams? You can explore the exam environment by visiting our exam sandbox. We created the sandbox as an opportunity for you to experience an exam before you take it. In the sandbox, you can interact with different question types, such as build list, case studies,

Useful links	Description
	and others that you might encounter in the user interface when you take an exam. Additionally, it includes the introductory screens, instructions, and help topics related to the different types of questions that your exam might include. It also includes the non-disclosure agreement that you must accept before you can launch the exam.
Request accommodations	We're committed to ensuring all learners are set up for success. If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation.
Take a practice test	Taking a practice test is a great way to know whether you're ready to take the exam or if you need to study a bit more. Subject-matter experts write the Microsoft Official Practice Tests, which are designed to assess all exam objectives.

Objective domain: skills the exam measures

The English language version of this exam was released on February 28, 2022.

Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. Other available languages are listed in the **Schedule Exam** section of the **Exam Details** webpage. If the exam isn't available in your preferred language, you can request an additional 30 minutes to complete the exam.

Note

The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

Note

Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured

- Prepare the data (15–20%)
- Model the data (30–35%)
- Visualize and analyze the data (30–35%)
- Deploy and maintain assets (10–15%)



Functional groups

Prepare the data (15–20%)

Get data from different data sources

- Identify and connect to a data source
- Change data source settings
- Select a shared dataset or create a local dataset
- Select a storage mode
- Use Microsoft Dataverse
- Change the value in a parameter
- Connect to a data flow

Clean, transform, and load the data

- Profile the data
- Resolve inconsistencies, unexpected or null values, and data quality issues
- Identify and create appropriate keys for joins
- Evaluate and transform column data types
- Shape and transform tables
- Combine queries
- Apply user-friendly naming conventions to columns and queries
- Configure data loading
- Resolve data import errors

Model the data (30–35%)

Design a data model

- Define the tables
- Configure table and column properties
- Design and implement role-playing dimensions
- Define a relationship's cardinality and cross-filter direction
- Design a data model that uses a star schema
- Create a common date table

Develop a data model

- Create calculated tables
- Create hierarchies
- Create calculated columns
- Implement row-level security roles
- Use the Q&A feature

Create model calculations by using DAX

- Create basic measures by using DAX
- Use CALCULATE to manipulate filters
- Implement Time Intelligence using DAX
- Replace implicit measures with explicit measures
- Use basic statistical functions
- Create semi-additive measures
- Use quick measures

Optimize model performance

- Remove unnecessary rows and columns
- Identify poorly performing measures, relationships, and visuals
- Reduce cardinality levels to improve performance

Visualize and analyze the data (30–35%)

Create reports

- Add visualization items to reports
- Choose an appropriate visualization type
- Format and configure visualizations
- Use a custom visual
- Apply and customize a theme
- Configure conditional formatting
- Apply slicing and filtering
- Configure the report page
- Use the Analyze in Excel feature
- Choose when to use a paginated report

Create dashboards

- Manage tiles on a dashboard
- Configure mobile view
- Use the Q&A feature
- Add a Quick Insights result to a dashboard
- Apply a dashboard theme
- Pin a live report page to a dashboard

Enhance reports for usability and storytelling

- Configure bookmarks
- Create custom tooltips
- Edit and configure interactions between visuals

- Configure navigation for a report
- Apply sorting
- Configure Sync Slicers
- Group and layer visuals by using the selection pane
- Drilldown into data using interactive visuals
- Export report data
- Design reports for mobile devices

Identify patterns and trends

- Use the Analyze feature in Power BI
- Identify outliers
- Choose between continuous and categorical axes
- Use groupings, binnings, and clustering
- Use AI visuals
- Use the Forecast feature
- Create reference lines by using the Analytics pane

Deploy and maintain assets (10–15%)

Manage files and datasets

- Identify when a gateway is required
- Configure a dataset scheduled refresh
- Configure row-level security group membership
- Provide access to datasets
- Manage global options for files

Manage workspaces

- Create and configure a workspace
- Assign workspace roles
- Configure and update a workspace app
- Publish, import, or update assets in a workspace
- Apply sensitivity labels to workspace content
- Configure subscriptions and data alerts
- Promote or certify Power BI content

Study Resources

We recommend that you train and get hands-on experience before you take the exam. We offer self-study options and classroom training as well as links to documentation, community sites, and videos.



Study resources	Links to learning and documentation
Get trained	Choose from self-paced learning paths and modules or take an instructor led course
Find documentation	Power BI documentation Microsoft Power Apps documentation
Ask a question	Microsoft Q&A Microsoft Docs
Get community support	Power Apps - Power Platform Community Power Query - Power Platform Community Building Power Apps - Power Platform Community
Follow Microsoft Learn	Microsoft Learn - Microsoft Tech Community
Find a video	Exam Readiness Zone Microsoft Learn #LessCodeMorePower Shows Browse other Microsoft Learn shows

Other Links

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[Home - RADACAD](#)

They have excellent tips, tricks and documentation.

[Home - SQLBI](#) Fantastic DAX resource

[Guy in a Cube - YouTube](#) Excellent YouTube Channel for all things Power BI

There are excellent resources on YouTube.

Julio Book Recommendations

Tuesday, June 20, 2023 10:52 AM

[The Data Warehouse Toolkit \(3 book series\) Kindle Edition \(amazon.com\)](#)

[Amazon.com: Database Normalization: Beginner's Guide eBook : Patel, Deepak: Kindle Store](#)

[Database Design for Mere Mortals: 25th Anniversary Edition: Hernandez, Michael J: 9780136788041: Amazon.com: Books](#)

[Amazon.com: Analyzing Data with Power BI and Power Pivot for Excel \(Business Skills\) eBook : Alberto, Ferrari, Russo Marco: Kindle Store](#)

[Amazon.com: Balanced Scorecard Success: The Kaplan-Norton Collection \(4 Books\) eBook : Kaplan, Robert S., Norton, David P.: Kindle Store](#)

[Amazon.com: The Big Book of Dashboards: Visualizing Your Data Using Real-World Business Scenarios eBook : Wexler, Steve, Shaffer, Jeffrey, Cotgreave, Andy: Kindle Store](#)

Manage files and datasets

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- Identify when a gateway is required
 - [On-premises data gateway - Power BI | Microsoft Learn](#)
 - [Power BI Gateway | Microsoft Power BI](#)
- Configure a dataset scheduled refresh
 - [Configure scheduled refresh - Power BI | Microsoft Learn](#)
- Configure row-level security group membership
 - [Row-level security \(RLS\) with Power BI - Power BI | Microsoft Learn](#)
- Provide access to datasets
 - [Let report readers use field parameters to change visuals \(preview\) - Power BI | Microsoft Learn](#)
- Manage global options for files

[Best practices for lifecycle management in Fabric - Microsoft Fabric | Microsoft Learn](#)

[Microsoft Trust Center Overview | Microsoft Trust Center](#)

[Control PII and Sensitive Data Risk for Self-Service BI using Power BI DataFlows and Azure Data Lake - Microsoft Community Hub](#)

[Data security and encryption best practices - Microsoft Azure | Microsoft Learn](#)

[Configuring Incremental Refresh in Power BI](#)

[Troubleshoot gateways - Power BI | Microsoft Learn](#)

[USERNAME function \(DAX\) - DAX | Microsoft Learn](#)

[Row-level security \(RLS\) with Power BI - Power BI | Microsoft Learn](#)

[Tutorial: Microsoft Fabric for Power BI users - Power BI | Microsoft Learn](#)

[Production performance Power BI content - Finance & Operations | Dynamics 365 | Microsoft Learn](#)

Manage workspaces

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- Create and configure a workspace
 - [Create a workspace - Power BI | Microsoft Learn](#)
- Assign workspace roles
 - [Roles in workspaces in Power BI - Power BI | Microsoft Learn](#)
- Configure and update a workspace app
 - [Publish an app in Power BI - Power BI | Microsoft Learn](#)
- Publish, import, or update assets in a workspace
- Apply sensitivity labels to workspace content
 - [How to apply sensitivity labels in Power BI - Power BI | Microsoft Learn](#)
- Configure subscriptions and data alerts
- Promote or certify Power BI content
 - [Get your Power BI visuals certified - Power BI | Microsoft Learn](#)

[What is Microsoft Purview? | Microsoft Learn](#)

[Configuring Incremental Refresh in Power BI](#)

[Automate your deployment pipeline by using APIs and Azure DevOps - Microsoft Fabric | Microsoft Learn](#)

[Git integration with Power BI Desktop projects - Power BI | Microsoft Learn](#)

[Backup and restore Power BI Premium datasets - Power BI | Microsoft Learn](#)

Design a data model

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- Define the tables
 - [Create date tables in Power BI Desktop - Power BI | Microsoft Learn](#)
 - [Auto date/time guidance in Power BI Desktop - Power BI | Microsoft Learn](#)
- Configure table and column properties
 - [Create and manage relationships in Power BI Desktop - Power BI | Microsoft Learn](#)
- Design and implement role-playing dimensions
 - [Understand star schema and the importance for Power BI - Power BI | Microsoft Learn](#)
- Define a relationship's cardinality and cross-filter direction
 - [Create and manage relationships in Power BI Desktop - Power BI | Microsoft Learn](#)
 - [One-to-one relationship guidance - Power BI | Microsoft Learn](#)
 - [Many-to-many relationship guidance - Power BI | Microsoft Learn](#)
 - [Active vs inactive relationship guidance - Power BI | Microsoft Learn](#)
 - [Bi-directional relationship guidance - Power BI | Microsoft Learn](#)
- Design a data model that uses a star schema
 - [Understand star schema and the importance for Power BI - Power BI | Microsoft Learn](#)
- Create a common date table
 - [Create date tables in Power BI Desktop - Power BI | Microsoft Learn](#)

[What is Microsoft Dataverse? - Power Apps | Microsoft Learn](#)

[Apps in Power BI - Power BI | Microsoft Learn](#)

[Merge queries overview - Power Query | Microsoft Learn](#)
<https://stackoverflow.com/questions/13997365/sql-joins-as-venn-diagram>

[Database normalization - Wikipedia](#)
[Online transaction processing - Wikipedia](#)
[Online analytical processing - Wikipedia](#)

- Star Schema: In a star schema, the data model revolves around a central fact table that contains the core business measures. The fact table is surrounded by multiple dimension tables, which provide context and descriptive attributes related to the facts. The dimension tables are connected directly to the fact table, forming a star-like structure.
- Snowflake Schema: A snowflake schema is an extension of the star schema, but with a more normalized structure. In a snowflake schema, the dimension tables are further normalized into sub-dimensions, creating a hierarchical structure. This normalization results in additional tables and relationships, resembling a snowflake shape.

[Data model - Wikipedia](#)

[Data categorization in Power BI Desktop - Power BI | Microsoft Learn](#)

<https://learn.microsoft.com/en-us/power-bi/connect-data/desktop-data-types>

Develop a data model

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- Create calculated tables
 - [Using calculated tables in Power BI Desktop - Power BI | Microsoft Learn](#)
- Create hierarchies
 - [Solved: How to create Hierarchy - Microsoft Power BI Community](#)
 - [Data categorization in Power BI Desktop - Power BI | Microsoft Learn](#)
- Create calculated columns
 - [Using calculated columns in Power BI Desktop - Power BI | Microsoft Learn](#)
- Implement row-level security roles
 - [Row-level security \(RLS\) guidance in Power BI Desktop - Power BI | Microsoft Learn](#)
 - [Restrict data access with row-level security \(RLS\) for Power BI Desktop - Power BI | Microsoft Learn](#)
- Use the Q&A feature
 - [Use natural language to explore data with Power BI Q&A - Power BI | Microsoft Learn](#)

[Multidimensional Modeling \(Adventure Works Tutorial\) | Microsoft Learn](#)

[Power BI Row-Level-Security Organizational Hierarchy – PBI Guy \(pbi-guy.com\)](#)
[Row Level Security in Power BI using Parent/Child Hierarchies – Jamey Johnston](#)

Create model calculations by using DAX

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[The Languages of Power BI - Microsoft Fabric Community DAX Guide](#)

- Create basic measures by using DAX
 - [Learn DAX basics in Power BI Desktop - Power BI | Microsoft Learn](#)
 - [DAX function reference - DAX | Microsoft Learn](#)
 - [Learn DAX videos - DAX | Microsoft Learn](#)
 - [Use DAX in Power BI Desktop - Training | Microsoft Learn](#)
- Use CALCULATE to manipulate filters
 - [CALCULATE function \(DAX\) - DAX | Microsoft Learn](#)
 - [EVALUATE keyword \(DAX\) - DAX | Microsoft Learn](#)
- Implement Time Intelligence using DAX
 - [Time intelligence functions \(DAX\) - DAX | Microsoft Learn](#)
 - [Use DAX time intelligence functions in Power BI Desktop models - Training | Microsoft Learn](#)
- Replace implicit measures with explicit measures
 - [Solved: Implicit versus explicit measures - Microsoft Power BI Community](#)
- Use basic statistical functions
 - [Statistical functions \(DAX\) - DAX | Microsoft Learn](#)
- Create semi-additive measures
 - [SUM function \(DAX\) - DAX | Microsoft Learn](#)
 - [SUMX function \(DAX\) - DAX | Microsoft Learn](#)
- Use quick measures
 - [Use quick measures for common and powerful calculations - Power BI | Microsoft Learn](#)

[Key Concepts in MDX \(Analysis Services\) | Microsoft Learn](#)

[Basics of Time Intelligence in DAX for Power BI: Year to Date, Quarter to Date, Month to Date - RADACAD](#)

[Explicit Vs Implicit DAX Measures in Power BI - RADACAD](#)

[Definitive Guide to DAX, The: Business intelligence for Microsoft Power BI, SQL Server Analysis Services, and Excel, 2nd Edition | Microsoft Press Store](#)

[DAX Patterns](#)

[DAX Studio | DAX Studio](#)

[DAX Studio for Power BI: Getting Started - Excelsior BI DAX Resource Center - TechNet Articles - United States \(English\) - TechNet Wiki \(microsoft.com\)](#)

[PREVIOUSYEAR function \(DAX\) - DAX | Microsoft Learn](#)

[PARALLELPERIOD function \(DAX\) - DAX | Microsoft Learn](#)

Optimize model performance

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[Optimization guide for Power BI - Power BI | Microsoft Learn](#)

[Best practices when working with Power Query - Power Query | Microsoft Learn](#)

Remove unnecessary rows and columns

- [Choose or remove columns - Power Query | Microsoft Learn](#)
- Identify poorly performing measures, relationships, and visuals
 - [Monitor report performance in Power BI - Power BI | Microsoft Learn](#)
 - [Use Performance Analyzer to examine report element performance in Power BI Desktop - Power BI | Microsoft Learn](#)
- Reduce cardinality levels to improve performance

Get data from different data sources

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- Identify and connect to a data source
 - [Where to get data - Power Query | Microsoft Learn](#)
 - [Connect to data in Power BI - documentation - Power BI | Microsoft Learn](#)
 - [Quickstart Connect to data in Power BI Desktop - Power BI | Microsoft Learn](#)
 - [DirectQuery in Power BI - Power BI | Microsoft Learn](#)
- Change data source settings
- Select a shared dataset or create a local dataset
- Select a storage mode
 - [Dataset modes in the Power BI service - Power BI | Microsoft Learn](#)
- Use Microsoft Dataverse
 - [Create a Power BI report using the Dataverse connector - Power Apps | Microsoft Learn](#)
- Change the value in a parameter
 - [Edit parameter settings in the Power BI service - Power BI | Microsoft Learn](#)
- Connect to a data flow
 - [Connect to data sources for dataflows - Power Query | Microsoft Learn](#)
 - [An overview of dataflows across Microsoft Power Platform and Dynamics 365 products - Power Query | Microsoft Learn](#)
 - [Introduction to dataflows and self-service data prep - Power BI | Microsoft Learn](#)
 - [Creating a dataflow - Power BI | Microsoft Learn](#)

[Power BI service features by license type - Power BI | Microsoft Learn](#)

[Tutorial: Microsoft Fabric for Power BI users - Power BI | Microsoft Learn](#)

[Power Query M formula language reference - PowerQuery M | Microsoft Learn](#)

<https://learn.microsoft.com/en-us/power-bi/connect-data/desktop-directquery-about#directquery-limitations>

Snowflake: <https://learn.microsoft.com/en-us/power-query/connectors/snowflake>, <https://learn.microsoft.com/en-us/power-bi/connect-data/service-connect-snowflake>

Connect to OneDrive: <https://learn.microsoft.com/en-us/power-bi/create-reports/desktop-sharepoint-save-share>, <https://learn.microsoft.com/en-us/power-bi/connect-data/desktop-use-onedrive-business-links>

Connect to on-premises SharePoint
<https://social.technet.microsoft.com/wiki/contents/articles/40040-power-bi-two-way-to-get-data-from-sharepoint-list-library.aspx>

Fix performance issues:
<https://learn.microsoft.com/en-us/training/modules/get-data/8-performance-issues>

Clean, transform, and load the data

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- Profile the data
 - [Using the data profiling tools - Power Query | Microsoft Learn](#)
- Resolve inconsistencies, unexpected or null values, and data quality issues
 - [Dealing with errors - Power Query | Microsoft Learn](#)
 - [Working with duplicate values - Power Query | Microsoft Learn](#)
- Identify and create appropriate keys for joins
 - [Create and manage relationships in Power BI Desktop - Power BI | Microsoft Learn](#)
- Evaluate and transform column data types
 - [Data types in Power Query - Power Query | Microsoft Learn](#)
- Shape and transform tables
 - [Promote or demote column headers - Power Query | Microsoft Learn](#)
 - [Filter a table by row position - Power Query | Microsoft Learn](#)
 - [Filter by values in a column - Power Query | Microsoft Learn](#)
 - [Combine files overview - Power Query | Microsoft Learn](#)
 - [Tutorial: Shape and combine data in Power BI Desktop - Power BI | Microsoft Learn](#)
- Combine queries
 - [Combine files overview - Power Query | Microsoft Learn](#)
- Apply user-friendly naming conventions to columns and queries
- Configure data loading
- Resolve data import errors

[Snake case - Wikipedia](#)
[Camel case - Wikipedia](#)

[Manage data storage in your workspaces - Power BI | Microsoft Learn](#)

[Where is data for the Power BI service stored? - Power BI | Microsoft Learn](#)

[Pivot columns - Power Query | Microsoft Learn](#)
[Unpivot columns - Power Query | Microsoft Learn](#)

[Query folding - Power Query | Microsoft Learn](#)

<https://community.fabric.microsoft.com/t5/Community-Blog/Vertipaq-Analyzer-How-to-Connect-to-Power-BI-Desktop/ba-p/721782>

<https://learn.microsoft.com/en-us/fabric/get-started/microsoft-fabric-overview>

<https://learn.microsoft.com/en-us/power-bi/guidance/import-modeling-data-reduction>

Data Samples: <https://learn.microsoft.com/en-us/power-bi/create-reports/sample-datasets#the-power-bi-samples-as-pbix-files>

M Function reference: <https://learn.microsoft.com/en-us/powerquery-m/power-query-m-function-reference>

Create a date table: <https://learn.microsoft.com/en-us/power-bi/guidance/model-date-tables>

<https://learn.microsoft.com/en-us/power-query/best-practices>

Create reports

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[Visualization types in Power BI - Power BI | Microsoft Learn](#)

- Add visualization items to reports
 - [Overview of report visualizations in Power BI service and Desktop - Power BI | Microsoft Learn](#)
 - [Part 1, Add visualizations to a Power BI report - Power BI | Microsoft Learn](#)
 - [Part 2, Add visualizations to a Power BI report - Power BI | Microsoft Learn](#)
- Choose an appropriate visualization type
- Format and configure visualizations
 - [Change the type of visualization in a report - Power BI | Microsoft Learn](#)
 - [Get started formatting Power BI visualizations - Power BI | Microsoft Learn](#)
- Use a custom visual
 - [Main sources for acquiring Power BI custom visuals - Power BI | Microsoft Learn](#)
- Apply and customize a theme
 - [Use report themes in Power BI Desktop - Power BI | Microsoft Learn](#)
- Configure conditional formatting
 - [Apply conditional table formatting in Power BI - Power BI | Microsoft Learn](#)
- Apply slicing and filtering
 - [Filters and highlighting in Power BI reports - Power BI | Microsoft Learn](#)
 - [Add a filter to a report in Power BI - Power BI | Microsoft Learn](#)
 - [Types of filters in Power BI reports - Power BI | Microsoft Learn](#)
 - [Slicers in Power BI - Power BI | Microsoft Learn](#)
- Configure the report page
 - [Reports in the Power BI service - Power BI | Microsoft Learn](#)
- Use the Analyze in Excel feature
 - [Start in Power BI with Analyze in Excel - Power BI | Microsoft Learn](#)
- Choose when to use a paginated report
 - [Paginated reports in Power BI: FAQ - Power BI | Microsoft Learn](#)
 - [What are paginated reports in Power BI? - Power BI | Microsoft Learn](#)

[Business Apps – Microsoft AppSource](#)
[Power BI Custom Visuals – Data Visualization Tools | Power BI \(microsoft.com\)](#)
[The Power BI deployment pipelines process - Power BI | Microsoft Learn](#)

[Add pre-set filter buttons to a Power BI dashboard - a DAX approach](#)

[Power BI | CLEAR ALL FILTERS Button With This SIMPLE Method!](#)

[Create buttons in Power BI reports - Power BI | Microsoft Learn](#)

[Power BI Licensing Calculator – data witches \(data-witches.com\)](#)
[Pricing & Product Comparison | Microsoft Power BI](#)
[Power BI service features by license type - Power BI | Microsoft Learn](#)

[Course DP-500T00--A: Designing and Implementing Enterprise-Scale Analytics Solutions Using Microsoft Azure and Microsoft Power BI - Training | Microsoft Learn](#)

Create dashboards

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[Intro to dashboards for Power BI designers - Power BI | Microsoft Learn](#)

- Manage tiles on a dashboard
 - [Pin a tile from one dashboard to another dashboard - Power BI | Microsoft Learn](#)
 - [How to pin a tile to a Power BI dashboard from Excel - Power BI | Microsoft Learn](#)
 - [How to pin a tile to a dashboard from Q&A - Power BI | Microsoft Learn](#)
- Configure mobile view
 - [Optimize a dashboard for mobile phones - Power BI | Microsoft Learn](#)
- Use the Q&A feature
 - [Create a Q&A visual in a dashboard - Power BI | Microsoft Learn](#)
- Add a Quick Insights result to a dashboard
 - [Run and view insights on dashboard tiles - Power BI | Microsoft Learn](#)
 - [Generate data insights on your dataset automatically - Power BI | Microsoft Learn](#)
- Apply a dashboard theme
 - [Use dashboard themes in the Power BI service - Power BI | Microsoft Learn](#)
- Pin a live report page to a dashboard
 - [Pin an entire report page to a Power BI dashboard - Power BI | Microsoft Learn](#)

[Tips for designing a great Power BI dashboard - Power BI | Microsoft Learn](#)

[Creating accessible reports in Power BI - Power BI | Microsoft Learn](#)

[Publish Power BI visuals to the Microsoft commercial marketplace. - Power BI | Microsoft Learn](#)

[Create Power BI visuals using Python in Power BI Desktop - Power BI | Microsoft Learn](#)

[Data Stories Gallery - Page 2 - Microsoft Fabric Community](#)

[Real-time streaming in Power BI - Power BI | Microsoft Learn](#)

Enhance reports for usability and storytelling

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- Configure bookmarks
 - [Create report bookmarks in Power BI to share insights and build stories - Power BI | Microsoft Learn](#)
- Create custom tooltips
 - [Create report tooltip pages in Power BI - Power BI | Microsoft Learn](#)
- Edit and configure interactions between visuals
- Configure navigation for a report
 - [Create page and bookmark navigators - Power BI | Microsoft Learn](#)
- Apply sorting
 - [Change how a chart is sorted in a report - Power BI | Microsoft Learn](#)
- Configure Sync Slicers
 - [Enable the Sync Slicers feature in Power BI visuals - Power BI | Microsoft Learn](#)
- Group and layer visuals by using the selection pane
 - [Use grouping in Power BI Desktop - Power BI | Microsoft Learn](#)
- Drilldown into data using interactive visuals
 - [Drill down and drill up in a visual - Power BI | Microsoft Learn](#)
- Export report data
 - [Export data from a Power BI visualization - Power BI | Microsoft Learn](#)
- Design reports for mobile devices
 - [About mobile-optimized Power BI reports - Power BI | Microsoft Learn](#)

[Python Releases for Windows | Python.org](#)
[Run Python scripts in Power BI Desktop - Power BI | Microsoft Learn](#)

[EN-AU-CNTNT-eBook-Zero-to-beautiful-Data-visualization-in-action.pdf \(microsoft.com\)](#)

[Blog Theme - Details \(oracle.com\)](#)
[Data Visualization Tips For Engaging Design | Tableau](#)
[Data Visualization: Best Practices and Foundations | Toptal®](#)
[Financial Times Visual Vocabulary: Power BI Edition – Some Random Thoughts \(sqliason.com\)](#)

Identify patterns and trends

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- Use the Analyze feature in Power BI
 - [Use the Analyze feature to explain fluctuations in report visuals - Power BI | Microsoft Learn](#)
- Identify outliers
 - [Anomaly detection tutorial - Power BI | Microsoft Learn](#)
- Choose between continuous and categorical axes
 - [Solved: what do the continuous and categorical type option... - Microsoft Power BI Community](#)
- Use groupings, binnings, and clustering
 - [Use grouping and binning in Power BI Desktop - Power BI | Microsoft Learn](#)
- Use AI visuals
 - [Work with AI visuals in Power BI - Training | Microsoft Learn](#)
- Use the Forecast feature
 - [Use the Analytics pane in Power BI Desktop - Power BI | Microsoft Learn](#)
- Create reference lines by using the Analytics pane
 - [Use the Analytics pane in Power BI Desktop - Power BI | Microsoft Learn](#)