PL-300: Microsoft Power BI Data Analyst Associate Exam Study Guide

April 17, 2022 by manish

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PL-300 exam measures your ability to accomplish the following technical tasks such as preparing the data, modeling the data, visualizing and analyzing the data, and deploying and maintaining assets.

The topics covered in this blog are:

- PL-300 Exam Overview
- PL-300 vs. DA-100 What's changed?
- Who is Microsoft Power BI Data Analyst?
- Why You Should Learn Microsoft Power BI?
- Who This Certification is for?
- PL-300 Certification Benefits

PL-300 Exam Overview

PL-300 Analyze Data with Microsoft Power BI was formerly known as DA-100 Analyze Data with Microsoft Power BI Training.

During this Power BI Data Analyst Training, participants will learn how to build data models and how to leverage diverse data sources to create actionable insights. Those interested in taking the PL-300 exam should have knowledge of Power Query and DAX expression authoring.

PL-300 vs. DA-100 What's changed?

Getting an official Microsoft certification is essential for anyone who works with Microsoft Power BI.

Power BI is included in the more basic PL-900 Microsoft Power Platform Fundamentals exam, but the standard exam for Power BI users is the DA-100: Analyzing Data with Microsoft Power BI.

The DA-100 provides a much more comprehensive analysis of Power BI and requires you to understand how it works, as well as the techniques and tricks that separate novices from experienced users.

It replaces the 70-778: Analyzing and Visualizing Data with Microsoft Power BI exam in Microsoft's overhaul of its exams, where the old suite of exams was scrapped in favor of role-based certifications.

Just over a year after DA-100 was introduced, it has been replaced by PL-300: Power BI Data Analyst.

A taker of the PL-300 exam will gain the "Power BI Data Analyst Associate" certification, while the DA-100 provided the "Data Analyst Associate" certification.

Who is Microsoft Power BI Data Analyst?

The Power BI data analyst provides actionable insights with the help of accessible data and domain experience. Moreover, this data analyst works with key stakeholders from various industries to identify business requirements, and clean and transform data. After that, they use Power BI to create and build data models.

Power BI data analysts create easy-to-understand data visuals and assist others with self-service analytics, deployment, and configuration.

It is important to know how to use Power Query and write DAX expressions for this test.
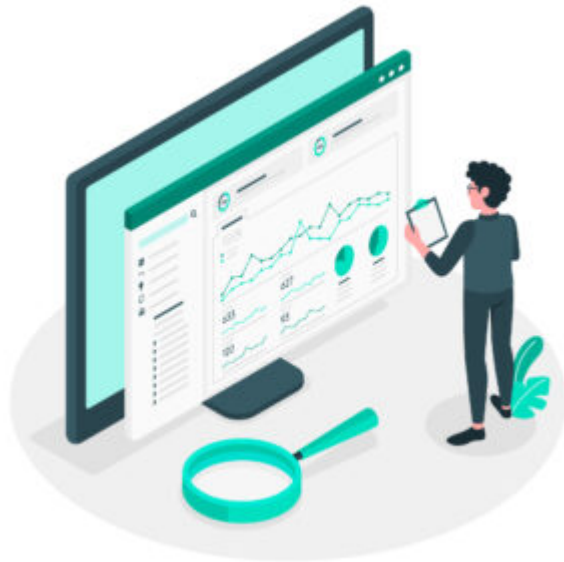
Why You Should Learn Microsoft Power BI?

Power BI is a simple tool that assists organizations in adopting a data-driven culture. It immediately gives insight and analyses. Due to robust self-service capabilities, business no longer needs to rely on IT to analyze the data.

Power BI is essential for many reasons such as automated dataset integration, ease of expansion into new data sources, quick visualization, and deployable Row Level Security.

In addition, a cloud-based environment with features like Natural Language Query makes easy Data governance.

Who This Certification is for?

PL 300 Certification is ideal for,

- Business Intelligence Professionals
- Data analysts
- IT Managers
- Professionals who use Power BI
- Data Scientists

- Professionals using Data for Decision-making
- Candidates who want to gain a clear understanding of the Microsoft Power BI Tool
- Candidates who want to clear the Microsoft Power BI Data Analyst PL-300 examination

PL-300 Certification Benefits

- Confirms your data insights knowledge.
- Helps the company to stand out in this competitive profession.
- 26% of technical professionals say getting certified led to career promotion and 35% say it led to a compensation or wage boost.
- PL-300 certification increases career opportunities as well as earnings.

Check Out: Azure Data Factory Interview Questions

PL-300 Exam Details

Exam Name	PL-300: Microsoft Power BI Data Analyst	**Passing Marks**	700
Exam Fee	$165	**Exam Duration**	180 Minutes
Exam Validity	1 Year	**Exam Languages**	English, Japanese, Chinese (Simplified), and Korean
Total Questions	40-60 Questions	**Exam Type**	Multiple-choice and Multiple response questions

PL-300 Exam Skills Measured

Prepare the data	**15-20%**

Model the data	**30-35%**
Visualize and analyze the data	**25-30%**
Deploy and maintain assets	**20-25%**

How to Register for Azure PL 300 Exam

You can register for PL-300: Microsoft Power BI Data Analyst exam by going to the Official Microsoft Page.

Schedule exam

Exam PL-300: Microsoft Power BI Data Analyst

Languages: English
Retirement date: none

This exam measures your ability to accomplish the following technical tasks: prepare the data; model the data; visualize and analyze the data; and deploy and maintain assets.

United States

$165 USD*

Price based on the country in which the exam is proctored.

Schedule exam >

Prerequisites For The PL-300

- The AZ-900: Microsoft Azure Fundamentals course should be taken by candidates who are unfamiliar with the cloud and Azure.
- A participant in the DP-900: Microsoft Azure Data Fundamentals program will gain knowledge and expertise in managing data solutions and in Azure

PL-300 Exam Study Guide

Prepare the Data (15-20%)

Get data from different data sources

- Identify and connect to a data source
  - Data sources in Power BI Desktop
  - Quickstart: Connect to data in Power BI Desktop
- Change data source settings
  - Manage data sources
- Select a shared dataset or create a local dataset
  - Where your workbook file is saved makes a difference
  - Power BI Shared Datasets
- Select a storage mode
  - Select a storage mode
- Use Microsoft Dataverse
  - What is Microsoft Dataverse?
  - Create tables in Dataverse
- Change the value in a parameter
  - Power BI — Specifying Parameters for Data Source
  - Edit parameter settings in the Power BI service
- Connect to a data flow
  - Configure and consume a dataflow
  - Creating a dataflow

Clean, transform, and load the data

- Profile the data
  - Using the data profiling tools
  - Column Profiling in Power BI Desktop
- Resolve inconsistencies, unexpected or null values, and data quality issues
  - Inconsistencies with date-type fields
  - Tips and tricks for creating relationships in Power BI Desktop
  - Creating relationships in Power BI Desktop when the data has null or blank values
  - How to Spot and Improve Data Quality in Power BI
- Identify and create appropriate keys for joins

- Model relationships in Power BI Desktop
- Evaluate and transform column data types
  - Evaluate and change column data types
- Shape and transform tables
  - Tutorial: Shape and combine data in Power BI Desktop
- Combine queries
  - merge queries
- Apply user-friendly naming conventions to columns and queries
  - Data Import Best Practices in Power BI
- Configure data loading
  - New updates in Power Query
- Resolve data import errors
  - Resolve data import errors

Model the Data (30—35%)

Design a data model

- Define the tables
  - Tables in Power BI reports and dashboards
- Configure table and column properties
  - Format the table
  - Adjust the column width of a table
- Design and implement role-playing dimensions
  - Role-playing dimensions
- Define a relationship's cardinality and cross-filter direction
  - Cardinality
  - Cross filter direction
- Design a data model that uses a star schema
  - Understand star schema and the importance for Power BI
  - Power BI — Star schema or single table
- Create a common date table
  - Common Date Filter for Multiple Tables

Develop a data model

- Create calculated tables
    - [Create calculated tables in Power BI Desktop](#)
- Create hierarchies
    - [Create Hierarchy in Power BI](#)
- Create calculated columns
    - [Tutorial: Create calculated columns in Power BI Desktop](#)
- Implement row-level security roles
    - [Restrict data access with RLS for Power BI Desktop](#)
- Use the Q&A feature
    - [Use Power BI Q&A to explore your data and create visuals](#)
    - [Q&A for Power BI business users](#)

Create model calculations by using DAX

- Create basic measures by using DAX
    - [Create and use your own measures](#)
    - [Use variables to improve your DAX formulas](#)
- Use CALCULATE to manipulate filters
    - [Avoid using FILTER as a filter argument](#)
- Implement Time Intelligence using DAX
    - [Time Intelligence in Power BI Desktop](#)
- Replace implicit measures with explicit measures
    - [Explicit Vs Implicit DAX Measures in Power BI](#)
- Use basic statistical functions
    - [DAX Statistical Functions](#)
- Create semi-additive measures
    - [Semi-Additive Measures in DAX (for Power Pivot)](#)
- Use quick measures
    - [Use quick measures for common calculations](#)

Optimize model performance

- Remove unnecessary rows and columns
  - Delete records or rows if blank field
  - Remove Columns from Tables in Power BI
- Identify poorly performing measures, relationships, and visuals
  - Slow Measures
  - Dealing with slow measures
  - Microsoft Power BI: My Power BI report is slow. What should I do?
  - Table relationship causes severe performance drop
  - Power BI Desktop Visuals slow load
- Reduce cardinality levels to improve performance
  - Reduce cardinality
  - Optimizing High Cardinality Columns in VertiPaq

Visualize and Analyze the Data (25—30%)

Create reports

- Add visualization items to reports
  - Add visuals to a Power BI report
- Choose an appropriate visualization type
  - Visualization types in Power BI
- Format and configure visualizations
  - Getting started with the formatting pane
- Use a custom visual
  - Power BI visual files
- Apply and customize a theme
  - Use report themes in Power BI Desktop
  - Use dashboard themes in the Power BI service
- Configure conditional formatting
  - Use conditional formatting in tables
- Apply slicing and filtering
  - Slicers in Power BI
  - Add a filter to a report in Power BI

- Configure the report page
  - Change the display of a report page
- Use the Analyze in Excel feature
  - Start in Power BI with Analyze in Excel
- Choose when to use a paginated report
  - When to use paginated reports in Power BI

Create dashboards

- Manage tiles on a dashboard
  - Edit or remove a dashboard tile
- Configure mobile view
  - Optimize a dashboard for mobile phones — Power BI
- Use the Q&A feature
  - Q&A on dashboards
- Add a Quick Insights result to a dashboard
  - View data insights on dashboard tiles with Power BI
- Apply a dashboard theme
  - Use dashboard themes in the Power BI service
- Pin a live report page to a dashboard
  - Add a new dashboard tile is by pinning an entire report page

Enhance reports for usability and storytelling

- Configure bookmarks
  - Bookmarks in Power BI desktop to share insights & build stories
- Create custom tooltips
  - Customize tooltips in Power BI
- Edit and configure interactions between visuals
  - Change how visuals interact in a Power BI report
- Configure navigation for a report
  - Make navigation easier with Power BI buttons
- Apply sorting

- - Sort one column by another column in Power BI
- Configure Sync Slicers
  - Sync and use slicers on other pages
- Group and layer visuals by using the selection pane
  - Power BI: Explore the New Selection Pane Feature
- Drilldown into data using interactive visuals
  - Drill mode in a visual in Power BI
- Export report data
  - Export the data that was used to create a visualization
- Design reports for mobile devices
  - About mobile-optimized Power BI reports
  - Power BI Design Tip; Design for Mobile Device

Identify patterns and trends

- Use the Analyze feature in Power BI
  - Use the Analyze feature to explain fluctuations in report visuals
- Identify outliers
  - Identify outliers with Power BI visuals
  - How To Detect Anomalies and Outliers in Your Data
- Choose between continuous and categorical axes
  - Customize x-axis and y-axis properties
- Use groupings, binnings, and clustering
  - Use grouping and binning in Power BI Desktop
  - Implement Clustering in Power BI
- Use AI visuals
  - Work with AI visuals in Power BI
- Use the Forecast feature
  - Forecasting in Power BI
  - Forecasting in Power BI
- Create reference lines by using the Analytics pane
  - Use the Analytics pane

Deploy and Maintain Assets (20—25%)

Manage files and datasets

- Identify when a gateway is required
  - Solved: Do I need a gateway?
  - Power BI Gateway
- Configure a dataset scheduled refresh
  - Configure scheduled refresh
- Configure row-level security group membership
  - Power BI Row-Level Security (RLS)
  - Row level security using AD groups
- Provide access to datasets
  - Build permission for shared datasets
- Manage global options for files
  - Change settings for Power BI reports

Manage workspaces

- Create and configure a workspace
  - Create the new workspaces in Power BI
  - Manage a 'classic' workspace in Power BI and Microsoft 365
- Assign workspace roles
  - The new workspace experience in Power BI
- Configure and update a workspace app
  - Change your published app
- Publish, import, or update assets in a workspace
  - Publish an app in Power BI
- Apply sensitivity labels to workspace content
  - How to apply sensitivity labels in Power BI
- Configure subscriptions and data alerts
  - Email subscriptions for Power BI reports and dashboards
  - Data alerts in the Power BI service
- Promote or certify Power BI content

- Promote your reports, dashboards, and apps on Power BI Home
- Endorse your content
- Endorsement – Promoting and certifying Power BI content

PL-300 Exam Retake Policy

The PL-300 exam retake policy is as follows:

1. If a candidate fails on the first attempt, they must wait for 24 hours before retaking the exam.
2. If a candidate again fails on the second attempt, then the candidate will have to wait for 14 days.
3. A candidate will be given a maximum of five attempts to retake an exam in a year.

Conclusion

If you are interested in taking the PL-300 exam, these are the main takeaway points regarding the Change from DA-100:

- The Microsoft Learn pathway is the best source of information – and you should do the labs
- For an accurate idea of what the exam covers, use the skills outline document – third-party resources may not be as accurate.
- Do not neglect the "Deploy and Maintain Assets" material as it is more prominent now.

Related/References

- AZ-500 Exam Study Guide
- AZ-204 Exam Study Guide
- SC-900 Exam Study Guide

- [AI-900 Exam Study Guide](#)

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1 thought on "PL-300: Microsoft Power BI Data Analyst Associate Exam Study Guide"

Carla

[May 17, 2022 at 3:44 am](#)

Thank you very much for writing this article. Before it, I thought that I had to pass the PL-900 because both that and the PL-300. However, since this is aligned with data, I feel that I have the background (I've passed AZ-900 and DP-900) to pass PL-300.
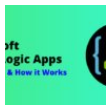
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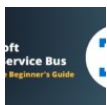## Leave a Comment

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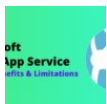Azure Storage Explorer: Download, Install, and Setup Overview

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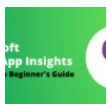
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