PL-300 exam prep

Skills measured as of February 6, 2024

Audience profile

As a candidate for this exam, you should deliver actionable insights by working with available data and applying domain expertise. You should:

- Provide meaningful business value through easy-to-comprehend data visualizations.
- Enable others to perform self-service analytics.
- Deploy and configure solutions for consumption.

As a Power BI data analyst, you work closely with business stakeholders to identify business requirements. You collaborate with enterprise data analysts and data engineers to identify and acquire data. You use Power BI to:

- Transform the data.
- Create data models.
- Visualize data.
- Share assets.

You should be proficient at using Power Query and writing expressions by using Data Analysis Expressions (DAX). You know how to assess data quality. Plus, you understand data security, including row-level security and data sensitivity.

Skills at a glance

- Prepare the data (25–30%)
- Model the data (25–30%)
- Visualize and analyze the data (25–30%)
- Deploy and maintain items (15–20%)

Prepare the data (25–30%)

Get data from data sources

- Identify and connect to a data source

- Change data source settings, including credentials, privacy levels, and data source locations
- Select a shared semantic model, or create a local data model
- Choose between DirectQuery, Import, and Dual mode
- Change the value in a parameter

Clean the data

- Evaluate data, including data statistics and column properties
- Resolve inconsistencies, unexpected or null values, and data quality issues
- Resolve data import errors

Transform and load the data

- Select appropriate column data types
- Create and transform columns
- Transform a query
- Design a star schema that contains facts and dimensions
- Identify when to use reference or duplicate queries and the resulting impact
- Merge and append queries
- Identify and create appropriate keys for relationships
- Configure data loading for queries

Model the data (25–30%)

Design and implement a data model

- Configure table and column properties
- Implement role-playing dimensions
- Define a relationship's cardinality and cross-filter direction
- Create a common date table
- Implement row-level security roles

Create model calculations by using DAX

- Create single aggregation measures
- Use CALCULATE to manipulate filters
- Implement time intelligence measures

- Identify implicit measures and replace with explicit measures
- Use basic statistical functions
- Create semi-additive measures
- Create a measure by using quick measures
- Create calculated tables

Optimize model performance

- Improve performance by identifying and removing unnecessary rows and columns
- Identify poorly performing measures, relationships, and visuals by using Performance Analyzer
- Improve performance by choosing optimal data types
- Improve performance by summarizing data

Visualize and analyze the data (25–30%)

Create reports

- Identify and implement appropriate visualizations
- 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

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
- Drill down into data using interactive visuals
- Configure export of report content, and perform an export
- Design reports for mobile devices

Identify patterns and trends

- Use the Analyze feature in Power BI
- Use grouping, binning, and clustering
- Incorporate the Q&A feature in a report
- Use AI visuals
- Use reference lines, error bars, and forecasting
- Detect outliers and anomalies
- Create and share scorecards and metrics

Deploy and maintain items (15–20%)

Create and manage workspaces and items

- Create and configure a workspace
- Assign workspace roles
- Configure and update a workspace app
- Publish, import, or update items in a workspace
- Create dashboards
- Choose a distribution method
- Apply sensitivity labels to workspace content
- Configure subscriptions and data alerts
- Promote or certify Power BI content
- Manage global options for files

Manage semantic models

- Identify when a gateway is required
- Configure a semantic model scheduled refresh
- Configure row-level security group membership
- Provide access to semantic models