Microsoft Certified: Data Analyst Associate – Skills Measured

This document contains the skills measured on the exams associated with this certification. It does not include any upcoming or recent changes that have been made to those skills. For more information about upcoming or recent changes, see the associated exam details page(s).

NOTE: The bullets that appear below each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.

NOTE: In most cases, exams do NOT cover preview features, and some features will only be added to an exam when they are GA (General Availability).

Exam DA-100: Analyzing Data with Microsoft Power BI

Prepare the Data (20-25%)

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
- choose an appropriate query type
- identify query performance issues
- use the Common Data Service (CDS)
- use parameters

Profile the data

- identify data anomalies
- examine data structures
- interrogate column properties
- interrogate data statistics

Clean, transform, and load the data

- resolve inconsistencies, unexpected or null values, and data quality issues
- apply user-friendly value replacements
- identify and create appropriate keys for joins
- evaluate and transform column data types
- apply data shape transformations to table structures

- combine queries
- apply user-friendly naming conventions to columns and queries
- leverage Advanced Editor to modify Power Query M code
- configure data loading
- resolve data import errors

Model the Data (25-30%)

Design a data model

- define the tables
- configure table and column properties
- define quick measures
- flatten out a parent-child hierarchy
- define role-playing dimensions
- define a relationship's cardinality and cross-filter direction
- design the data model to meet performance requirements
- resolve many-to-many relationships
- create a common date table
- define the appropriate level of data granularity

Develop a data model

- apply cross-filter direction and security filtering
- create calculated tables
- create hierarchies
- create calculated columns
- implement row-level security roles
- set up the Q&A feature

Create measures by using DAX

- use DAX to build complex measures
- use CALCULATE to manipulate filters
- implement Time Intelligence using DAX
- replace numeric columns with measures
- use basic statistical functions to enhance data
- create semi-additive measures

Optimize model performance

- remove unnecessary rows and columns
- identify poorly performing measures, relationships, and visuals
- improve cardinality levels by changing data types

- improve cardinality levels through summarization
- create and manage aggregations

Visualize the Data (20-25%)

Create reports

- add visualization items to reports
- choose an appropriate visualization type
- format and configure visualizations
- import a custom visual
- configure conditional formatting
- apply slicing and filtering
- add an R or Python visual
- configure the report page
- design and configure for accessibility
- configure automatic page refresh

Create dashboards

- set mobile view
- manage tiles on a dashboard
- configure data alerts
- use the Q&A feature
- add a dashboard theme
- pin a live report page to a dashboard
- configure data classification

Enrich reports for usability

- configure bookmarks
- create custom tooltips
- edit and configure interactions between visuals
- configure navigation for a report
- apply sorting
- configure Sync Slicers
- use the selection pane
- use drillthrough and cross filter
- drilldown into data using interactive visuals
- export report data
- design reports for mobile devices

Analyze the Data (10-15%)

Enhance reports to expose insights

- apply conditional formatting
- apply slicers and filters
- perform top N analysis
- explore statistical summary
- use the Q&A visual
- add a Quick Insights result to a report
- create reference lines by using Analytics pane
- use the Play Axis feature of a visualization

Perform advanced analysis

- identify outliers
- conduct Time Series analysis
- use groupings and binnings
- use the Key Influencers to explore dimensional variances
- use the decomposition tree visual to break down a measure
- apply AI Insights

Deploy and Maintain Deliverables (10-15%)

Manage datasets

- configure a dataset scheduled refresh
- configure row-level security group membership
- providing access to datasets
- configure incremental refresh settings
- promote or certify a dataset

Create and manage workspaces

- create and configure a workspace
- recommend a development lifecycle strategy
- assign workspace roles
- configure and update a workspace app
- publish, import, or update assets in a workspace
- apply sensitivity labels to workspace content