

Microsoft Power BI Data Analyst

Duration: 3 Days

Course Description:

This course covers the various methods and best practices that are in line with business and technical requirements for modeling, visualizing, and analyzing data with Power BI. The course will show how to access and process data from a range of data sources including both relational and non-relational sources. Finally, this course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution.

Target Audience:

The audience for this course are data professionals and business intelligence professionals who want to learn how to accurately perform data analysis using Power BI. This course is also targeted toward those individuals who develop reports that visualize data from the data platform technologies that exist on both in the cloud and on-premises.

Course Outline:

Discover data analysis

- Introduction
- Overview of data analysis
- Roles in data
- Tasks of a data analyst

Get started building with Power BI

- > Introduction
- Use Power BI
- > Building blocks of Power BI
- > Tour and use the Power BI service

Get data in Power BI

- > Introduction
- Get data from files
- > Get data from relational data sources
- Create dynamic reports with parameters
- > Get data from a NoSQL database
- > Get data from online services
- Select a storage mode
- Get data from Azure Analysis Services
- Fix performance issues
- > Resolve data import errors
- Exercise Prepare data in Power BI Desktop

Clean, transform, and load data in Power BI

- > Introduction
- > Shape the initial data
- Simplify the data structure
- > Evaluate and change column data types
- > Combine multiple tables into a single table
- Profile data in Power BI
- Use Advanced Editor to modify M code

Create dashboards in Power BI

- Introduction to dashboards
- Configure data alerts
- Explore data by asking questions
- Review Quick insights
- Add a dashboard theme

Design a semantic model in Power BI

- Introduction
- Work with tables
- Create a date table
- Work with dimensionsDefine data granularity
- Work with relationships and cardinality
- Resolve modeling challenges

Add measures to Power BI Desktop models

- > Introduction
- Create simple measures
- Create compound measures
- > Create quick measures
- Compare calculated columns with measures
- Exercise Create DAX Calculations in Power BI Desktop

Add calculated tables and columns to Power BI Desktop models

- > Introduction
- Create calculated columns
- Learn about row context
- Choose a technique to add a column

Use DAX time intelligence functions in Power BI Desktop models

- > Introduction
- > Use DAX time intelligence functions
- Additional time intelligence calculations

Optimize a model for performance in Power BI

- > Introduction to performance optimization
- Review performance of measures, relationships, and visuals
- Use variables to improve performance and troubleshooting
- Reduce cardinality
- Optimize DirectQuery models with table level storage
- Create and manage aggregations

Design Power BI reports

- > Introduction
- Design the analytical report layout
- Design visually appealing reports
- Report objects
- Select report visuals
- > Select report visuals to suit the report layout
- Format and configure visualizations
- Work with key performance indicators

Configure Power BI report filters

- Introduction to designing reports for filtering
- > Apply filters to the report structure
- Apply filters with slicers
- Design reports with advanced filtering techniques
- Consumption-time filtering
- Select report filter techniques
- Case study Configure report filters based on feedback

Enhance Power BI report designs for the user experience

- Design reports to show details
- Design reports to highlight values
- Design reports that behave like apps
- Work with bookmarks
- Design reports for navigation
- Work with visual headers
- Design reports with built-in assistance
- Tune report performance
- Optimize reports for mobile use

Perform analytics in Power BI

- Introduction to analytics
- Explore statistical summary
- Identify outliers with Power BI visuals
- Group and bin data for analysis
- Apply clustering techniques
- Conduct time series analysis
- Use the Analyze featureCreate what-if parameters
- Use specialized visuals

Create and manage workspaces in Power BI

- Introduction
- Distribute a report or dashboard
- Monitor usage and performance
- Recommend a development life cycle strategy
- > Troubleshoot data by viewing its lineage
- Configure data protection

Manage semantic models in Power BI

- Use a Power BI gateway to connect to on-premises data sources
- Configure a semantic model scheduled refresh
- Configure incremental refresh settings
- Configure incremental refresh settings
 Manage and promote semantic models
- Troubleshoot service connectivity
- Boost performance with query caching (Premium)
- Pin a live report page to a dashboard
- Configure a real-time dashboardSet mobile view

Implement row-level security

- > Introduction
- Configure row-level security with the static method
- Configure row-level security with the dynamic method