PL-300: Microsoft Power BI Data Analyst
3-5 Days

HOMNICK SYSTEMS
KNOWLEDGE IS THE SOLUTION

Overview
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.

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

Why the variable days
This gives you the opportunity to expand the course to experience more real-world examples, including your own projects through a mentoring approach. It also allows for guided Hands-On Labs during class time, so the student finishes the exercises with training assistance from the instructor and is not left to complete the learning process on their own time.

Course Syllabus

Discover data analysis
Would you like to explore the journey of a data analyst and learn how a data analyst tells a story with data? In this module, you explore the different roles in data and learn the different tasks of a data analyst.

Get started building with Power BI
Learn about Power BI, the building blocks and flow of Power BI, and how to create compelling, interactive reports.

Introduction to end-to-end analytics using Microsoft Fabric
Discover how Microsoft Fabric can meet your enterprise's analytics needs in one platform. Learn about Microsoft Fabric, how it works, and identify how you can use it for your analytics needs.

Get started with Copilot in Power BI
Copilot in Power BI increases productivity when developing semantic models and reports using Power BI. Copilot also allows you to interact with your data using natural language to gain insights.

Get data in Power BI
You'll learn how to retrieve data from a variety of data sources, including Microsoft Excel, relational databases, and NoSQL data stores. You'll also learn how to improve performance while retrieving data.

Clean, transform, and load data in Power BI
Power Query has an incredible number of features that are dedicated to helping you clean and prepare your data for analysis. You'll learn how to simplify a complicated model, change data types, rename objects, and pivot data. You'll also learn how to profile columns so that you know which columns have the valuable data that you're seeking for deeper analytics.

Choose a Power BI model framework
Describe model frameworks, their benefits and limitations, and features to help optimize your Power BI data models.

Configure a semantic model
Semantic models organize complex data into an intuitive structure, enhancing data visualization and enabling efficient, insightful reporting for better decision-making.

Write DAX formulas for semantic models
Data Analysis Expressions (DAX) is a formula language for Power BI that enables you to create calculations, add logic, and enhance data analysis within your reports and semantic models.

Create DAX calculations in semantic models
Adding DAX calculations to Power BI semantic models allows you to define custom logic within your data model, to enable deeper analysis and data-driven business decisions.

Modify DAX filter context in semantic models
Modifying the filter context in DAX lets you control how calculations evaluate data in Power BI semantic models. Gain deeper insights and tailor your analysis in your reports by choosing exactly what data is included in calculations.

Use DAX time intelligence functions in semantic models
DAX time intelligence functions in Power BI enable users to analyze and compare data across different time periods, supporting insightful reporting on trends, growth, and performance over time.

Create visual calculations in Power BI Desktop
Calculations in Power BI are necessary to enrich data analysis. Visual calculations simplify complex formulas, enhance performance, and reduce maintenance.

Optimize a model for performance in Power BI
Performance optimization, also known as performance tuning, involves making changes to the current state of the semantic model so that it runs more efficiently. Essentially, when your semantic model is optimized, it performs better.

Scope report design requirements
Identify your audience, choose suitable report types, and define interface and experience requirements to effectively plan your report design.

Design Power BI reports
Design effective Power BI reports that are visually appealing and easy to understand with consistent report structure, interactive objects, and filtering.

Enhance Power BI report designs for the user experience
Design reports with intuitive navigation and enable users to explore data in an easy way that is meaningful to them.

Perform analytics in Power BI
Advanced analytics helps you gain deeper insights into your data, identify trends, and make data-driven decisions. Power BI provides a variety of tools and features to help you analyze your data effectively.

Manage workspaces in Power BI service
Explore the Power BI service, create and manage workspaces, and distribute reports to users.

Manage semantic models in Power BI
Semantic models are the foundation for report development in Power BI. Efficient management ensures data connectivity and improves report performance and accuracy.

Choose a content distribution method
Learn how to implement a content distribution method for Power BI.

Create dashboards in Power BI
Microsoft Power BI dashboards are different than Power BI reports. Dashboards allow report consumers to create a single artifact of directed data that is personalized just for them. Dashboards can be composed of pinned visuals that are taken from different reports. Where a Power BI report uses data from a single semantic model, a Power BI dashboard can contain visuals from different semantic models.

Secure data access in Power BI
Row-level security (RLS) and Object-level security (OLS) allows you to create a single or a set of reports that targets data for a specific user. In this module, you'll learn how to implement RLS by using either a static or dynamic method and how Microsoft Power BI simplifies testing RLS in Power BI Desktop and Power BI service. In addition, you'll learn how to implement OLS to restrict access to Power BI model objects.