Microsoft® Power BI®: Data Analysis Practitioner

Course Specifications

Course Number:

095206

Course Length:

2 days

Course Description

Overview:

As technology progresses and becomes more interwoven with our businesses and lives, more data is collected about business and personal activities. This era of "big data" has exploded due to the rise of cloud computing, which provides an abundance of computational power and storage, allowing organizations of all sorts to capture and store data. Leveraging that data effectively can provide timely insights and a competitive advantage.

The creation of data-backed visualizations is a key way data scientists, or any professional, can explore, analyze, and report insights and trends from data. Microsoft® Power BI® software is designed for this purpose. Power BI was built to connect to a wide range of data sources, and allows users to quickly create visualizations of connected data to gain insights, show trends, and create reports. Power BI's data connection capabilities and visualization features go far beyond those that can be found in spreadsheets, allowing users to create compelling and interactive worksheets, dashboards, and stories that bring data to life and turn data into thoughtful action.

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Course Objectives:

In this course, you will explore and visualize data with Power BI.

You will:

- Analyze data with self-service BI.
- Connect to data sources.
- Perform advanced data modeling and shaping.
- Visualize data with Power BI.
- Enhance data analysis.
- Model data with calculations.
- Create interactive visualizations.

Target Student:

This course is designed for professionals in a variety of job roles who are currently using desktop or web-based data-management tools such as Microsoft Excel or SQL Server reporting server to perform numerical or general data analysis. They are responsible for conducting data analysis and providing reports about their analysis, and are looking for alternative ways to analyze business data, visualize insights, and share those insights with peers across the enterprise. This includes capturing and reporting on data to peers, executives, and clients.

Prerequisites:

To ensure your success, you should have experience managing data with a spreadsheet program such as Microsoft Excel or Google Sheets. To meet this prerequisite, you can take any one or more of the following Logical Operations courses:

- *Microsoft® Office Excel® 2016: Part 1 (Desktop/Office 365™)*
- *Microsoft® Office Excel® 2016: Part 2*
- *Using Google G Suite™*

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Optionally, having experience with other data analytics tools, such as Google Analytics™ or Customer Relationship Management (CRM) tools, as well as an understanding of database design concepts and basic programming constructs such as looping and branching, will help you get even more out of this course. The following courses are helpful but not required:

- *Google Analytics™: Foundation (Second Edition)*
- *Database Design: A Modern Approach*
- *Microsoft® Office Excel® 2016: Data Analysis with Power Pivot*

Course-specific Technical Requirements

Hardware:

For this course, you will need one computer for each student and one for the instructor. Each computer will need the following minimum hardware configurations:If using virtual machines, it is recommended to assign two virtual processors to each VM.

- 2 GHz or faster 64-bit (x64) processor
- 8 gigabyte (GB) RAM (64-bit)
- 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
- CD-ROM drive (if installing any software from a CD-ROM)
- Keyboard and mouse (or other pointing device)
- 1,024 x 768 or higher resolution monitor recommended
- Network cards and cabling for local network access
- Internet access (contact your local network administrator)
- Printer (optional) or an installed printer driver
- Projection system to display the instructor's computer screen
- Mobile device to run Power BI mobile app (optional)

Software:

- Microsoft® Windows® 10
- Microsoft® Office 365™ Enterprise (Trial)Students will need to be provided with an Office 365 Enterprise trial email address they can access during the course.
- Adobe® Acrobat® Reader
- Power BI ® Desktop
- Any web browser.
- If necessary, software for viewing the course slides. (Instructor machine only.)

Course Content

Lesson 1: Analyzing Data with Self-Service BI

 Topic A: Data Analysis and Visualization for Business Intelligence
 Topic B: Self-Service BI with Microsoft Power BI

Lesson 2: Connecting to Data

 Topic A: Create Data Connections
 Topic B: Model Data with Relationships
 Topic C: Save Power BI Files

Lesson 3: Performing Advanced Data Modeling and Shaping

 Topic A: Clean and Transform Data with the Query Editor
 Topic B: Shape Data with the Query Editor
 Topic C: Combine and Manage Data Rows

Lesson 4: Visualizing Data with Power BI

 Topic A: Create Visualizations in Power BI
 Topic B: Chart Data in Power BI

Lesson 5: Enhancing Data Analysis

 Topic A: Enhance Analysis with Customized Visuals and Pages
 Topic B: Enhance Analysis with Tooltips

Lesson 6: Modeling Data with Calculations

 Topic A: Create Calculations with Data Analysis Expressions (DAX)
 Topic B: Create Calculated Measures and Conditional Columns

Lesson 7: Creating Interactive Visualizations

 Topic A: Create and Manage Data Hierarchies
 Topic B: Filter and Slice Reports
 Topic C: Create Dashboards in Power BI