DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI

Category: Infrastructure & IT Operations | **Vendor:** Microsoft Technical

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	Microsoft Certified: Fabric Analytics Engineer Associate
Related Exam:	DP-500

Course Overview

This course covers methods and practices for performing advanced data analytics at scale. Students will build on existing analytics experience and will learn to implement and manage a data analytics environment, query and transform data, implement and manage data models, and explore and visualize data. In this course, students will use Microsoft Purview, Azure Synapse Analytics, and Power BI to build analytics solutions.

About This Course

This course covers methods and practices for performing advanced data analytics at scale. Students will build on existing analytics experience and will learn to implement and manage a data analytics environment, query and transform data, implement and manage data models, and explore and visualize data. In this course, students will use Microsoft Purview, Azure Synapse Analytics, and Power BI to build analytics solutions.

Who Should Attend

Candidates for this course should have subject matter expertise in designing, creating, and deploying enterprise-scale data analytics solutions. Specifically, candidates should have advanced Power BI skills, including managing data repositories and data processing in the cloud and on-premises, along with using Power Query and Data Analysis Expressions (DAX). They should also be proficient in consuming data from Azure Synapse Analytics and should have experience querying relational databases, analyzing data by using Transact-SQL (T-SQL), and visualizing data.

Prerequisites & Entry Requirements

General Prerequisites:

A foundational knowledge of core data concepts and how they’re implemented using Azure data services. For more information see Azure Data Fundamentals. Experience designing and building scalable data models, cleaning and transforming data, and enabling advanced analytic capabilities that provide meaningful business value using Microsoft Power BI. For more information see Power BI Data Analyst.

Detailed Course Outline

1 - Explore Azure data services for modern analytics

- Understand the Azure data ecosystem
- Explore modern analytics solution architecture

2 - Understand concepts of data analytics

- Understand data analytics types
- Explore the data analytics process
- Understand types of data and data storage

3 - Explore data analytics at scale

- Explore data team roles and responsibilities
- Review tasks and tools for data analysts
- Scale analytics with Azure Synapse Analytics and Power BI
- Strategies to scale analytics

4 - Introduction to Microsoft Purview

- What is Microsoft Purview?
- How Microsoft Purview works
- When to use Microsoft Purview

5 - Discover trusted data using Microsoft Purview

- Search for assets
- Browse assets
- Use assets with Power BI
- Integrate with Azure Synapse Analytics

6 - Catalog data artifacts by using Microsoft Purview

- Register and scan data
- Classify and label data
- Search the data catalog

7 - Manage Power BI assets by using Microsoft Purview

- Register and scan a Power BI tenant
- Search and browse Power BI assets
- View Power BI metadata and lineage

8 - Integrate Microsoft Purview and Azure Synapse Analytics

- Catalog Azure Synapse Analytics data assets in Microsoft Purview
- Connect Microsoft Purview to an Azure Synapse Analytics workspace
- Search a Purview catalog in Synapse Studio
- Track data lineage in pipelines

9 - Introduction to Azure Synapse Analytics

- What is Azure Synapse Analytics
- How Azure Synapse Analytics works
- When to use Azure Synapse Analytics

10 - Use Azure Synapse serverless SQL pool to query files in a data lake

- Understand Azure Synapse serverless SQL pool capabilities and use cases
- Query files using a serverless SQL pool
- Create external database objects

11 - Analyze data with Apache Spark in Azure Synapse Analytics

- Get to know Apache Spark
- Use Spark in Azure Synapse Analytics
- Analyze data with Spark
- Visualize data with Spark

12 - Analyze data in a relational data warehouse

- Design a data warehouse schema
- Create data warehouse tables
- Load data warehouse tables
- Query a data warehouse

13 - Choose a Power BI model framework

- Describe Power BI model fundamentals
- Determine when to develop an import model
- Determine when to develop a DirectQuery model
- Determine when to develop a composite model
- Choose a model framework

14 - Understand scalability in Power BI

- Describe the significance of scalable models
- Implement Power BI data modeling best practices
- Configure large datasets

15 - Create and manage scalable Power BI dataflows

- Define use cases for dataflows
- Create reusable assets
- Implement best practices

16 - Create Power BI model relationships

- Understand model relationships
- Set up relationships
- Use DAX relationship functions
- Understand relationship evaluation

17 - Use DAX time intelligence functions in Power BI Desktop models

- Use DAX time intelligence functions
- Additional time intelligence calculations

18 - Create calculation groups

- Understand calculation groups
- Explore calculation groups features and usage
- Create calculation groups in a model

19 - Enforce Power BI model security

- Restrict access to Power BI model data
- Restrict access to Power BI model objects
- Apply good modeling practices

20 - Use tools to optimize Power BI performance

- Use Performance analyzer
- Troubleshoot DAX performance by using DAX Studio
- Optimize a data model by using Best Practice Analyzer

21 - Understand advanced data visualization concepts

- Create and import a custom report theme
- Enable personalized visuals in a report
- Design and configure Power BI reports for accessibility
- Create custom visuals with R or Python
- Review report performance using Performance Analyzer

22 - Monitor data in real-time with Power BI

- Describe Power BI real-time analytics
- Set up automatic page refresh
- Create real-time dashboards
- Set-up auto-refresh paginated reports

23 - Create paginated reports

- Get data
- Create a paginated report
- Work with charts on the report
- Publish the report

24 - Provide governance in a Power BI environment

- Elements of data governance
- Configure tenant settings
- Deploy organizational visuals
- Manage embed codes
- Help and support settings

25 - Monitor and audit usage

- Usage metrics for dashboards and reports
- Usage metrics for dashboards and reports - new version
- Audit logs
- Activity log

26 - Broaden the reach of Power BI

- REST API custom development
- Provision a Power BI embedded capacity
- Dataflow introduction
- Dataflow explained
- Create a Dataflow
- Dataflow capabilities on Power BI Premium
- Template apps - install packages
- Template apps - installed entities
- Template app governance

27 - Build reports using Power BI within Azure Synapse Analytics

- Describe the Power BI and Synapse workspace integration
- Understand Power BI data sources
- Describe Power BI optimization options
- Visualize data with serverless SQL pools

28 - Design a Power BI application lifecycle management strategy

- Define application lifecycle management
- Recommend a source control strategy
- Design a deployment strategy

29 - Create and manage a Power BI deployment pipeline

- Understand the deployment process
- Create a deployment pipeline
- Assign a workspace
- Deploy content
- Work with deployment pipelines

30 - Create and manage Power BI assets

- Create reusable Power BI assets
- Explore Power BI assets using lineage view
- Manage a Power BI dataset using XMLA endpoint

□□ Certification Path

Microsoft Certified: Fabric Analytics Engineer Associate

Exam: DP-500

Frequently Asked Questions

Q: What delivery options are available for DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI course helps prepare you for the Microsoft Certified: Fabric Analytics Engineer Associate certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the DP-500 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 4-day DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI?

Yes, we provide corporate training, dedicated training, and closed classes for DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your DP-500T00 Designing and Implementing Enterprise-Scale Analytics Using Azure and Power BI training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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