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Microsoft

# DP-500: DESIGNING AND IMPLEMENTING ENTERPRISE-SCALE ANALYTICS SOLUTIONS USING MICROSOFT AZURE AND MICROSOFT POWER BI



Course Level:

Associate

Course Duration:

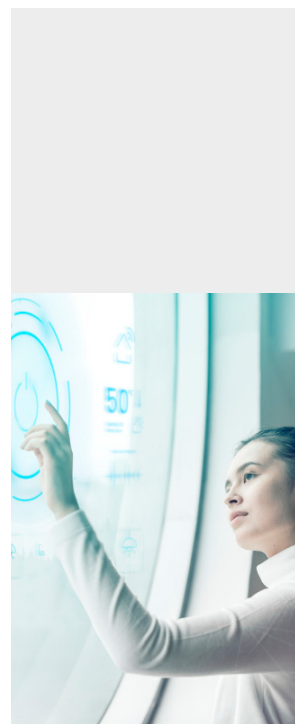
4 Days

## Course Overview:

This exam DP-500: Designing and Implementing Enterprise Scale Analytics course from CloudThat has been designed to provide the required skills and knowledge candidates need to successfully pass the exam DP-500 and become Microsoft certified Azure Enterprise Data Analyst Associate. Candidates for exam DP-500 new released course performs advanced data analytics at scale, such as cleaning and transforming data, designing, and building enterprise data models, incorporating advanced analytics capabilities, integrating with IT infrastructure, and applying development lifecycle practices.

Candidates for Microsoft Azure exam DP-500 help collect enterprise-level requirements for data analytics solutions that include Azure and Microsoft Power BI. They also advise on data governance and configuration settings for Power BI administration, monitor data usage, and optimize performance of the data analytics solutions.

Candidates attending our DP-500 training get access to the authored curriculum and can learn through engaging and interactive sessions delivered by Microsoft-certified in-house trainers.



## Prerequisites


Candidates for the Azure Enterprise Data Analyst Associate certification exam 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).

Candidates 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.

## Objectives

 Implement and manage a data analytics environment

 Query and transform data

 Implement and manage data models

 Explore and visualize data

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# Course Outline

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## Module 1: Implement and manage a data analytics environment

### Govern and administer a data analytics environment

- Manage Power BI assets by using Azure Purview
- Identify data sources in Azure by using Azure Purview
- Recommend settings in the Power BI admin portal
- Recommend a monitoring and auditing solution for a data analytics environment, including Power BI REST API and PowerShell cmdlets

### Integrate an analytics platform into an existing IT infrastructure

- Identify requirements for a solution, including features, performance, and licensing strategy
- Configure and manage Power BI capacity
- Recommend and configure an on-premises gateway in Power BI
- Recommend and configure a Power BI tenant or workspace to integrate with Azure Data Lake Storage Gen2
- Integrate an existing Power BI workspace into Azure Synapse Analytics

# Course Outline

## Manage the analytics development lifecycle

- Identify requirements for a solution, including features, performance, and licensing strategy
- Configure and manage Power BI capacity
- Recommend and configure an on-premises gateway in Power BI
- Recommend and configure a Power BI tenant or workspace to integrate with Azure Data Lake Storage Gen2
- Integrate an existing Power BI workspace into Azure Synapse Analytics

## Manage the analytics development lifecycle

- Commit code and artifacts to a source control repository in Azure Synapse Analytics
- Recommend a deployment strategy for Power BI assets
- Recommend a source control strategy for Power BI assets
- Implement and manage deployment pipelines in Power BI
- Perform impact analysis of downstream dependencies from dataflows and datasets
- Recommend automation solutions for the analytics development lifecycle, including Power BI REST API and PowerShell cmdlets
- Deploy and manage datasets by using the XMLA endpoint
- Create reusable assets, including Power BI templates, Power BI data source (.pbids) files, and shared datasets

# Course Outline

## Module 2: Query and transform data

### Query data by using Azure Synapse Analytics

- Identify an appropriate Azure Synapse pool when analyzing data
- Recommend appropriate file types for querying serverless SQL pools
- Query relational data sources in dedicated or serverless SQL pools, including querying partitioned data sources
- Use a machine learning PREDICT function in a query

### Ingest and transform data by using Power BI

- Identify data loading performance bottlenecks in Power Query or data sources
- Implement performance improvements in Power Query and data sources
- Create and manage scalable Power BI dataflows
- Identify and manage privacy settings on data sources
- Create queries, functions, and parameters by using the Power Query Advanced Editor
- Query advanced data sources, including JSON, Parquet, APIs, and Azure Machine Learning models

# Course Outline

## Module 3: Implement and manage data models

### Design and build tabular models

- Choose when to use DirectQuery for Power BI datasets
- Choose when to use external tools, including DAX Studio and Tabular Editor 2
- Create calculation groups
- Write calculations that use DAX variables and functions, for example handling blanks or errors, creating virtual relationships, and working with iterators
- Design and build a large format dataset
- Design and build composite models, including aggregation
- Design and implement enterprise-scale row-level security and object-level security

### Optimize enterprise-scale data models

- Identify and implement performance improvements in queries and report visuals
- Troubleshoot DAX performance by using DAX Studio
- Optimize a data model by using Tabular Editor 2
- Analyze data model efficiency by using VertiPaq Analyzer
- Implement incremental refresh
- Optimize a data model by using denormalization

# Course Outline

## Module 4: Explore and visualize data

### Explore data by using Azure Synapse Analytics

- Explore data by using native visuals in Spark notebooks
- Explore and visualize data by using the Azure Synapse SQL results pane

### Visualize data by using Power BI

- Create and import a custom report theme
- Create R or Python visuals in Power BI
- Connect to and query datasets by using the XMLA endpoint
- Design and configure Power BI reports for accessibility
- Enable personalized visuals in a report
- Configure automatic page refresh
- Create and distribute paginated reports in Power BI Report Builder

## Who should attend this course?

Data Analysts

# Course Outline

## About CloudThat

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CloudThat is the first company in India to offer Cloud Training & Consulting services for mid-market & enterprise clients from across the globe. Since our inception in 2012, we have trained over 500K IT professionals from fortune 500 companies on technologies such cloud, virtualization, Artificial Intelligence, Machine Learning, IoT, OpenStack, OpenShift, DevOps, MongoDB, Big Data and more.

Through sheer dedication and excellence in the field of cloud training, CloudThat has been recently recognized as VMware Authorized Training Reseller. In addition, CloudThat is a proud Microsoft Gold Partner, AWS Advanced Consulting Partner, Google Cloud Platform Partner, and Databricks Partner. Recently, we have won the Microsoft Asia Superstar Campaign for India-2021 for being a global leader in providing cloud training and consultancy services with exemplary track record.

## Our Success Track

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10+ Years  
of Experience

100+  
Corporates served

28+  
countries catered

500K+  
Professionals trained

200+  
Projects delivered

350+  
Cloud certifications

To know more about our VMware certification training, email at [sales@cloudthat.com](mailto:sales@cloudthat.com) or call us at +918880002200.