

**MICROSOFT**

# Microsoft Certified: Azure Data Engineer Associate

**Validate your technical skills and grow your career.**

This certification demonstrates that the recipient is proficient in carrying out management, monitoring, security and data privacy while using the full stack of Azure data services to keep their organization running smoothly.

## Why Take The Microsoft Certified: Azure Data Engineer Associate DP-200 & DP-201 Exam?

The need AI tech professionals is going to increase dramatically in the near future and passing the exam will help you secure an excellent position in the industry as an Azure Data Engineer.

### Increase My Salary

- The average salary for someone who holds a Microsoft Certified: Azure Data Engineer Associate certification is around \$137,000 / year

### Be Part Of The Team

- As an Azure Data Engineer, you become part of a team that is dedicated to managing cloud-based or hybrid environments for your organization's cloud infrastructure.

### Challenging Test

- The Azure Data Engineer Associate certification is a combination of the D-P200 & DP-201 exams, making it one of the more difficult merits to attain.

## Abilities Validated By The Certification:

- Implement data storage solutions
- Manage and develop data processing
- Monitor and optimize data solutions
- Design Azure data storage solutions
- Design data processing solutions
- Design for data security and compliance

## Recommended Knowledge & Experience:

- At least 6 months of hands-on experience administering Azure, with a strong understanding of core Azure services, workloads, security and governance.
- Candidates should also have experience using the full stack of Azure Data services.

## Exam Topics & Scoring:

### ***Exam DP-200: Implementing an Azure Data Solution***

#### **IMPLEMENT DATA STORAGE SOLUTIONS (40-45%)**

##### ***Implement non-relational data stores***

- implement a solution that uses Cosmos DB, Data Lake Storage Gen2, or Blob storage
- implement data distribution and partitions
- implement a consistency model in Cosmos DB
- provision a non-relational data store □ provide access to data to meet security requirements
- implement for high availability, disaster recovery, and global distribution

##### ***Implement relational data stores***

- provide access to data to meet security requirements
- implement for high availability and disaster recovery
- implement data distribution and partitions for Azure Synapse Analytics
- implement PolyBase

##### ***Manage data security***

- implement data masking
- encrypt data at rest and in motion



## MANAGE AND DEVELOP DATA PROCESSING (25-30%)

### ***Develop batch processing solutions***

- develop batch processing solutions by using Data Factory and Azure Databricks
- ingest data by using PolyBase
- implement the integration runtime for Data Factory
- create linked services and datasets
- create pipelines and activities
- create and schedule triggers
- implement Azure Databricks clusters, notebooks, jobs, and autoscaling
- ingest data into Azure Databricks

### ***Develop streaming solutions***

- configure input and output
- select the appropriate built-in functions
- implement event processing by using Stream Analytics

## MONITOR AND OPTIMIZE DATA SOLUTIONS (30-35%)

### ***Monitor data storage***

- monitor relational and non-relational data sources
- implement Blob storage monitoring
- implement Data Lake Storage monitoring
- implement Azure Synapse Analytics monitoring
- implement Cosmos DB monitoring
- configure Azure Monitor alerts
- implement auditing by using Azure Log Analytics

### ***Monitor data processing***

- monitor Data Factory pipelines
- monitor Azure Databricks
- monitor Stream Analytics
- configure Azure Monitor alerts
- implement auditing by using Azure Log Analytics

### ***Optimization of Azure data solutions***

- troubleshoot data partitioning bottlenecks
- optimize Data Lake Storage
- optimize Stream Analytics
- optimize Azure Synapse Analytics
- manage the data lifecycle

## ***Exam DP-201: Designing an Azure Data Solution***

### **DESIGN AZURE DATA STORAGE SOLUTIONS (40-45%)**

#### ***Recommend an Azure data storage solution based on requirements***

- choose the correct data storage solution to meet the technical and business requirements
- choose the partition distribution type

#### ***Design non-relational cloud data stores***

- design data distribution and partitions
- design for scale (including multi-region, latency, and throughput)
- design a solution that uses Cosmos DB, Data Lake Storage Gen2, or Blob storage
- select the appropriate Cosmos DB API
- design a disaster recovery strategy
- design for high availability

#### ***Design relational cloud data stores***

- design data distribution and partitions
- design for scale (including latency, and throughput)
- design a solution that uses Azure Synapse Analytics
- design a disaster recovery strategy
- design for high availability

### **DESIGN DATA PROCESSING SOLUTIONS (25-30%)**

#### ***Design batch processing solutions***

- design batch processing solutions that use Data Factory and Azure Databricks
- identify the optimal data ingestion method for a batch processing solution
- identify where processing should take place, such as at the source, at the destination, or in transit

#### ***Design real-time processing solutions***

- design for real-time processing by using Stream Analytics and Azure Databricks
- design and provision compute resources

### **DESIGN FOR DATA SECURITY AND COMPLIANCE (25-30%)**

#### ***Design security for source data access***

- plan for secure endpoints (private/public)
- choose the appropriate authentication mechanism, such as access keys, shared access signatures (SAS), and Azure Active Directory (Azure AD)

### ***Design security for data policies and standards***

- design data encryption for data at rest and in transit
- design for data auditing and data masking
- design for data privacy and data classification
- design a data retention policy
- plan an archiving strategy
- plan to purge data based on business requirements

### **Prepare for your exam:**

The best way to prepare is with first-hand experience. Taking advantage of the opportunities that Phoenix TS provides will assist you with gathering all the knowledge and skills you'll need for certification.

## **Phoenix TS Microsoft Certified: Azure Data Engineer Associate - Learning Pathways**

### **• DP-200T01: Implementing an Azure Data Solution**

Course Overview Phoenix TS' 3-day instructor-led Microsoft Implementing an Azure Data Solution training and certification boot camp in Washington, DC Metro, Tysons Corner, VA, Columbia, MD or Live Online teaches students how to implement various data platform technologies into solutions that are in-line with business and technical requirements, including on-premises, cloud, and hybrid data scenarios [...]

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### **• DP-201T01: Designing an Azure Data Solution**

Course Overview Phoenix TS' 2-day instructor-led Microsoft Designing an Azure Data Solution



training and certification boot camp in Washington, DC Metro, Tysons Corner, VA, Columbia, MD or Live Online teaches students how to design various data platform technologies into solutions that are in line with business and technical requirements. This can include on-premises, cloud, and [...]

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## Exam Details

- Multiple choice, multiple answers
- Testing in person or online proctored exam
- 130 Min to take the test
- \$150 test fee
- Available in English, Japanese, Korean, and Simplified Chinese