



GTech Learn

"Our focus is your Success"



Course Contents

DP-750T00: Implement data engineering solutions using Azure Databricks

Duration: 4 days	Level: Intermediate	Role: Data Engineer
Certification: Available	Public Schedules: View Dates	Private Delivery: Reach Us

What's included?

- ✓ Learn from Microsoft Certified Trainer (MCT's)
- ✓ 24x7 Lab Access
- ✓ Official Courseware
- ✓ Exam Preps / Practice Tests
- ✓ Badges & Completion Certificate
- ✓ Discounted Exam Vouchers



Data & AI
Azure

Training Services

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Overview

Master end-to-end data engineering with Azure Databricks and Unity Catalog. This course moves from foundational setup to production deployment, covering environment configuration and enterprise-grade governance. Learn to build robust ingestion pipelines, implement security with Unity Catalog, and deploy optimized workloads. By the end, you will have the practical skills to implement, secure, and maintain scalable lakehouse solutions that meet rigorous enterprise requirements.

Audience Profile

The target audience is data engineers who have fundamental knowledge of data analytics concepts, a basic understanding of cloud storage, and familiarity with data organization principles. They should be comfortable working with SQL and have experience using Python, including notebooks, for data engineering tasks. Learners are expected to have a good understanding of Azure Databricks workspaces and Unity Catalog, along with familiarity with data access patterns and core data engineering and data warehouse concepts. In addition, they should have foundational knowledge of Azure security, including Microsoft Entra ID, and be familiar with Git version control fundamentals.

Contents

Learning Path 1: Explore Azure Databricks

- Get Started With Azure Databricks
- Identify Azure Databricks Workloads
- Understand Key Concepts
- Data Governance Using Unity Catalog and Microsoft Purview

Learning Path 2: Select and Configure Compute in Azure Databricks

- Choose an appropriate compute type
- Configure compute performance
- Configure compute features
- Install libraries for compute
- Configure compute access

Learning Path 3: Create and organize objects in Unity Catalog

- Apply naming conventions
- Create catalog
- Create schema
- Create tables and views
- Create volumes
- Implement DDL operations
- Implement foreign catalog
- Configure AI/BI Genie instructions

Learning Path 4: Secure Unity Catalog objects

- Understand query lifecycle

- Implement access control strategies
- Understand fine-grained access control
- Implement row filtering and column masking
- Access Azure Key Vault secrets
- Authenticate data access with service principals
- Authenticate resource access with managed identities

Learning Path 5: Govern Unity Catalog objects

- Create and preserve table definitions
- Configure ABAC with tags and policies
- Apply data retention policies
- Set up and manage data lineage
- Configure audit logging
- Design secure Delta Sharing strategy

Learning Path 6: Design and implement data modeling with Azure Databricks

- Design ingestion logic and data source configuration
- Choose a data ingestion tool
- Choose a data table format
- Design and implement a data partitioning scheme
- Choose a slowly changing dimension (SCD) type
- Implement a slowly changing dimension (SCD) type 2
- Design and implement a temporal (history) table to record changes over time
- Choose granularity on a column or table based on requirements
- Choose managed vs unmanaged tables
- Design and implement a clustering strategy

Learning Path 7: Ingest data into Unity Catalog

- Ingest data with Lakeflow Connect
- Ingest data with notebooks
- Ingest data with SQL methods
- Ingest data with CDC feed
- Ingest data with Spark Structured Streaming
- Ingest data with Auto Loader
- Ingest data with Lakeflow Spark Declarative Pipelines

Learning Path 8: Cleanse, transform, and load data into Unity Catalog

- Profile data
- Choose column data types
- Resolve duplicates and nulls
- Transform data with filters and aggregations
- Transform data with joins and set operators
- Transform data with denormalization and pivots
- Load data with merge, insert, and append

Learning Path 9: Implement and manage data quality constraints with Azure Databricks

- Implement validation checks

- Implement data type checks
- Detect and manage schema drift
- Manage data quality with pipeline expectations.

Learning Path 10: Design and implement data pipelines with Azure Databricks

- Design order of operations for a pipeline
- Choose notebook vs Lakeflow Pipelines
- Design Lakeflow job logic
- Design error handling in pipelines and jobs
- Create pipeline with notebook
- Create pipeline with Lakeflow Spark Declarative Pipelines

Learning Path 11: Implement Lakeflow Jobs with Azure Databricks

- Create job setup and configuration
- Configure job triggers
- Schedule a job
- Configure job alerts
- Configure automatic restarts

Learning Path 12: Implement development lifecycle processes in Azure Databricks

- Apply Git version control best practices
- Manage branching and pull requests
- Implement testing strategy
- Configure and package Declarative Automation Bundles
- Deploy bundle with Databricks CLI

Learning Path 13: Monitor, troubleshoot and optimize workloads in Azure Databricks

- Monitor and manage cluster consumption
- Troubleshoot and repair Lakeflow Jobs
- Troubleshoot Spark jobs and notebooks
- Implement log streaming with Azure Log Analytics

About GTech Learn

Established in 2011 in the USA, GTech Learn is one of the leading IT training organizations in North America & South East Asia. Driven by its unique USPs, GTech Learn is spurring competition, meeting the unmet needs of customers, assisting in skills upgrade, and supplementing talent pools with its presence in the USA, Canada, Singapore and India. This is consistent with our vision to help our Learners with skills upgrade for enhanced career opportunities.







As a Microsoft Learning Partner, we offer a broad range of learning solutions across the full Microsoft technology stack that can be customized.

Since 2011, GTech Learn has been developing custom-fit learning solutions that involve creating and delivering maximum results.

We have successfully helped all types of businesses, government entities, and individuals. For this reason, GTech has chosen by Microsoft to deliver comprehensive learning programs around the globe.

With flexible learning options, state-of-the-art delivery methods, numerous language preferences, experienced instructors, and complete dedication to our students, GTech Learn has the capabilities to help students develop their Microsoft skill sets and achieve increasingly high standards of productivity while organizations of all sizes realize the full potential of their technology investments.

Our Accreditations with Microsoft

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