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**Learning Style: Virtual Classroom**

**Technology: Microsoft**

**Difficulty: Intermediate**

**Course Duration: 1 Day**

# Implementing a Data Analytics Solution with Azure Databricks (DP-3011)



## About This Course:

Implementing a Data Analytics Solution with Azure Databricks course is designed for data professionals, including data engineers and data scientists, who aim to utilize Azure Databricks for advanced data analytics solutions. This course provides

a comprehensive understanding of how to implement, configure, and optimize data analytics pipelines using Azure Databricks, an Apache Spark-based analytics platform.

## Course Objectives:

- Introduction to Azure Databricks
- Setting Up Azure Databricks Workspaces
- Data Ingestion and Processing
- Developing Data Pipelines
- Data Exploration and Analysis
- Machine Learning and AI Integration
- Optimizing and Tuning Performance
- Security and Compliance

## Audience:

- Data Engineer
- Data Scientist

## Prerequisites:

None

## Course Outline:

### Explore Azure Databricks

- Provision an Azure Databricks workspace
- Identify core workloads and personas for Azure Databricks
- Describe key concepts of an Azure Databricks solution
- Lab: Explore Azure Databricks

### Use Apache Spark in Azure Databricks

- Describe key elements of the Apache Spark architecture
- Create and configure a Spark cluster
- Describe use cases for Spark
- Use Spark to process and analyze data stored in files
- Use Spark to visualize data
- Lab: Use Spark in Azure Databricks

### Use Delta Lake in Azure Databricks

- Describe core features and capabilities of Delta Lake
- Create and use Delta Lake tables in Azure Databricks
- Create Spark catalog tables for Delta Lake data

- Use Delta Lake tables for streaming data
- Lab: Use Delta Lake in Azure Databricks

## Use SQL Warehouses in Azure Databricks

- Create and configure SQL Warehouses in Azure Databricks
- Create databases and tables
- Create queries and dashboards
- Lab: Use a SQL Warehouse in Azure Databricks

## Run Azure Databricks Notebooks with Azure Data Factory

- Describe how Azure Databricks notebooks can be run in a pipeline
- Create an Azure Data Factory linked service for Azure Databricks
- Use a Notebook activity in a pipeline
- Pass parameters to a notebook
- Lab: Run an Azure Databricks Notebook with Azure Data Factory

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