Unogeeks

Data Bricks Training Course Content

Course Duration - 45-50 Hrs., 7-8 Weeks

Course Information

Batch Options

Weekday Batch
Mon – Sat – 1.5 Hr./Day

About the Trainer

Industry Expert Trainer with 15+ Years Real Time Work Experience at Top US Based Product and Consulting Firms

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Introduction To Data Bricks Training

Introduction To Data Bricks Training

Azure Databricks is a fast, easy, and collaborative Apache Spark-based big data analytics service designed for data science and data engineering.

What you'll learn

- Azure Databricks, Databricks utilities, Spark Architecture, Spark RDDs
- Read and Write Data, DataFrames in Azure Databricks, DataFrames Columns
- DataFrames Advanced Methods - Aggregation, Date Time, Complex types, Additional functions
- Building and Querying a Data Lake, Process the Streaming Data, User-defined functions
- Process the Streaming Data with the Azure Databricks structured streaming
- Delta Lake Architecture, Create production workloads on Azure Databricks with Data factory
- Implementing the CI/CD with the Azure DevOps Exam
- Help you with Azure Databricks Certification Prep, Mock Interviews and Job Assistance

Course Content

Module 1: Introduction to Databricks

- What is Azure Databricks?
- Why Azure Databricks?
- How does Azure Databricks work?
- Databricks utilities
- How to integrate Azure Databricks with Azure Blob Storage?

Module 2: Spark Architecture Basics

- Overview of Spark Architecture
- The architecture of Azure Databricks spark cluster
- The architecture of Spark Job

Module 3: Spark RDDs

- What is an RDD?
- How to create an RDD?
- Datasets in Spark

Module 4: Read and Write Data in the Azure Databricks

- Read Data in CSV and JSON Format
- Read Data in the Parquet Format
- Read Data stored in views and tables
- Write the data

Module 5: DataFrames in Azure Databricks

- DataFrames and SparkSQL
- How to create DataFrames?
- SparkSQL data types
- Data sources
- DataFrame Reader & Writer
- Schemas
- Performance
- DataFrame columns and expressions
- DataFrame actions
    - DataFrame rows

Module 6: DataFrames Columns in Azure Databricks

- Column Class
- Working with the Column Expressions

*****DataFrames Advanced Methods in Azure Databricks*****

Module 7: Aggregation

- GroupBy
- Grouped data methods
- Aggregate functions
- Math functions

Module 8: DateTime

- Dates and timestamps
- DateTime patterns
- DateTime functions

Module 9: Complex types

- String functions
- Collection functions

Module 10: Additional functions

- Non-aggregate functions
- Na Functions

Module 11: User-defined functions

Module 12: Platform Architecture, Data protection in the Azure Databricks

- Azure Databricks platform architecture
- Perform data protection
- Security Scope of Azure Key Vault and Databricks
- Secure Access with the Azure Authentication and IAM
- Explain Security

Module 13: Building and Querying a Data Lake

- Open-Source Delta Lake
- How Azure Databricks manages Delta Lake

Module 14: Process the Streaming Data with the Azure Databricks structured streaming

- Azure Databricks structured streaming
- Performing the Stream Processing through the structured streaming
- Working with the Time Windows
- Process the data from the Event Hubs with the structured streaming

Module 15: Delta Lake Architecture

- Bronze, Gold, and Silver Architecture
- Performing the Batch and stream processing

Module 16: Creating the production workloads on Azure Databricks with the Azure Data factory

- Scheduling the Databricks jobs in the data factory pipeline
- Passing the Parameters in and out of the Databricks jobs in the data factory

Module 17: Implementing the CI/CD with the Azure DevOps

- What is CI/CD
- Creating the CI/CD process with the Azure DevOps

Module 18: Integrate Azure Databricks with the Azure Synapse

********* PROJECT – Implement Azure Data Bricks for a Live Project

Introduction to Project Use Case

- Implement Azure Data Bricks for a Live Project.

Module 19: Project Work – Build Azure Data Bricks Components

- Understand the project requirement & come up with Design
- Configure Azure Data Bricks Components as per requirements.
- Test the setups

Module 20: Azure Data Bricks Certification Guidance

- Explain various Azure Data Bricks Certification Options
- Discuss Important Azure Data Bricks Certification Exam Questions
- Prepare for Azure Data Bricks Certification

Module 21: Resume Preparation, Interview and Job Assistance

- Prepare Crisp Resume as Azure Data Bricks Specialist
- Discuss common interview questions in Azure Data Bricks
- Provide Job Assistance