Thank you for contacting our **SQL School**. I am **Mr. Sai Phanindra**, trainer for this **Databricks Training** Course. With 20+ Years of technical expertise exclusively on Database and Cloud, DWH & BI and AI Technologies, I assure you 100% Practical, Step by Step Classes for this in-depth course. My Profile @ linkedin.com/in/saiphanindra/

🔥 Detailed Course Content 🔥

Module 1: SQL Server TSQL (MS SQL) Queries

Ch 1: SQL Database Job Roles

- ✓ **Introduction to Data**
- ✓ **Database Intro, Types**
- ✓ **OLTP, DWH, OLAP**
- ✓ **DBMS Concepts**
- ✓ **Database Job Roles**
- ✓ **Data Engineer Job Roles**

Ch 2: Database Intro & Installations

- ✓ **SQL Server Installations**
- ✓ **Instance Concepts**
- ✓ **Authentication Types**
- ✓ **Authentication Modes**
- ✓ **Collation & File Stream**
- ✓ **SQL Server 2025 Installations**
- ✓ **SSMS Tool Installation**
- ✓ **Connections, Authentications**

Ch 3: SQL Basics V1 (Commands)

- ✓ Creating Databases (GUI)
- ✓ Creating Tables, Columns (GUI)
- ✓ SQL Basics (DDL, DML, etc..)
- ✓ Creating Databases, Tables
- ✓ Data Inserts (GUI, SQL)
- ✓ Basic SELECT Queries

Ch 4: SQL Basics V2 (Commands, Operators)

- ✓ DDL: Create, Alter, Drop, Add
- ✓ DML: Insert, Update, Delete
- ✓ DQL: Select, Fetch
- ✓ SQL Operators
- ✓ Special Operators

Ch 5: Excel Data Imports

- ✓ Data Imports with Excel
- ✓ SQL Native Client
- ✓ Order By: Asc, Desc
- ✓ Order By with WHERE
- ✓ TOP & OFFSET
- ✓ UNION, UNION ALL

Ch 6: Schemas & Batches

- ✓ Schemas: Creation, Usage
- ✓ Schemas & Table Grouping
- ✓ Real-world Banking Database
- ✓ 2 Part, 3 Part & 4 Part Naming
- ✓ Batch Concept & “Go” Command

Ch 7: Constraints, Keys & RDBMS

- ✓ Null, Not Null Constraints
- ✓ Unique Key Constraint
- ✓ Primary Key Constraint
- ✓ Foreign Key & References
- ✓ Default Constraint & Usage
- ✓ DB Diagrams & ER Models

Ch 8: Realtime Case Study - 1

- ✓ Medicare Database
- ✓ Patients, Visits, Meds, etc
- ✓ Keys, Constraints
- ✓ Relations, Data Validations

Ch 9: Joins & Queries

- ✓ Joins: Table Comparisons
- ✓ Inner Joins & Matching Data

- ✓ Outer Joins: LEFT, RIGHT
- ✓ Full Outer Joins & Aliases
- ✓ Cross Join & Table Combination
- ✓ Joining more than 2 tables

Ch 10: Views & RLS

- ✓ Views: Realtime Usage
- ✓ Storing SELECT in Views
- ✓ DML, SELECT with Views
- ✓ RLS: Row Level Security
- ✓ WITH CHECK OPTION
- ✓ Important System Views

Ch 11: Stored Procedures

- ✓ Stored Procedures: Realtime Use
- ✓ Parameters Concept with SPs
- ✓ Procedures with SELECT
- ✓ System Stored Procedures
- ✓ Metadata Access with SPs
- ✓ Stored Procedures, Tuning

Ch 12: User Defined Functions

- ✓ Using Functions in MSSQL
- ✓ Scalar Functions in Real-world
- ✓ Inline & Multiline Functions
- ✓ Parameterized Queries
- ✓ Date & Time Functions
- ✓ String Functions & Queries
- ✓ Aggregated Functions & Usage

Ch 13: Triggers & Automations

- ✓ Need for Triggers in Real-world
- ✓ DDL & DML Triggers
- ✓ For / After Triggers
- ✓ Instead Of Triggers
- ✓ Memory Tables with Triggers
- ✓ Disabling DMLs & Triggers

Ch 14: Transactions & ACID

- ✓ Transaction Concepts in OLTP
- ✓ Auto Commit Transaction
- ✓ Explicit Transactions
- ✓ COMMIT, ROLLBACK
- ✓ Checkpoint & Logging
- ✓ Lock Hints & Query Blocking
- ✓ READPAST, LOCKHINT

Ch 15: Indexes Basics, Tuning

- ✓ Indexes & Tuning
- ✓ Clustered Index, Primary Key
- ✓ Non Clustered Index & Unique
- ✓ Creating Indexes Manually
- ✓ Composite Keys, Query Optimizer
- ✓ Composite Indexes & Usage

Ch 16: CTEs & Tuning

- ✓ Common Table Expression
- ✓ Creating and Using CTEs
- ✓ CTEs, In-Memory Processing
- ✓ Using CTEs for DML Operations
- ✓ SP Recompilations
- ✓ IIF(), CASE Statement

Ch 17: Group By Queries

- ✓ Group By, Distinct Keywords
- ✓ GROUP BY, HAVING
- ✓ Cube( ) and Rollup( )
- ✓ Sub Totals & Grand Totals
- ✓ Grouping( ) & Usage
- ✓ Group By with UNION
- ✓ Group By with UNION ALL

Ch 18: Sub Queries

- ✓ Sub Queries Concept
- ✓ Sub Queries & Aggregations
- ✓ Joins with Sub Queries
- ✓ Sub Queries with Aliases
- ✓ Sub Queries, Joins, Where
- ✓ Correlated Queries

Ch 19: Joins with Group By

- ✓ Joins with Group By
- ✓ 3 Table, 4 Table Joins
- ✓ Join Queries with Aliases
- ✓ Join Queries & WHERE
- ✓ Join Queries & Group By
- ✓ Joins with Sub Queries
- ✓ Query Execution Order

Ch 20: Normal Forms & Self Joins

- ✓ Normal Forms: 1 NF, 2 NF
- ✓ 3 NF, BCNF and 4 NF
- ✓ Adding PK to Tables
- ✓ Adding FK to Tables

- ✓ Cascading Keys
- ✓ Self Referencing Keys
- ✓ Database Diagrams

Ch 21: Data Types & Variables

- ✓ Integer Data Types
- ✓ Character, MAX Data Types
- ✓ Decimal & Money Data Types
- ✓ Boolean & Binary Data Types
- ✓ Date and Time Data Types
- ✓ SQL_Variant Type
- ✓ Variables in SQL
- ✓ Cursor Variable & Fetch

Ch 22: Rank Functions, CTEs

- ✓ Window Functions (Rank)
- ✓ Row_Number( )
- ✓ Rank( ), DenseRank( )
- ✓ Partition By & Order By
- ✓ Using CTEs with Row Number

Ch 23: Merge (Upsert) with SPs

- ✓ Merge Statement
- ✓ Upsert Operations with Merge
- ✓ Merge with OLTP & DWH
- ✓ Matched and Not Matched
- ✓ Merge Statement inside SPs

Ch 24: Realtime Case Study - 2

- ✓ ECommerce Database
- ✓ Entities and ER Diagram
- ✓ Data Validations
- ✓ Query Writing
- ✓ Query Tuning

Module 2: Databricks

Ch 1: Databricks Introduction

- ✓ Cloud ETL, DWH
- ✓ Cloud Computing
- ✓ Databricks Concepts
- ✓ Big Data in Cloud

Ch 2: Databricks Architecture

- ✓ Unity Catalog, Volume

- ✓ Spark Clusters
- ✓ Apache Spark and Databricks
- ✓ Apache Spark Ecosystem
- ✓ Compute Operations
- ✓ Hadoop, MapReduce, Apache Spark

Ch 3: Unity Catalog

- ✓ Unity Catalog Concepts
- ✓ Workspace Objects
- ✓ Databricks Notebooks
- ✓ Databricks Workspace UI
- ✓ Organizing Workspace Objects
- ✓ Creating Volumes
- ✓ Spark Table Creations
- ✓ Spark UI: Limitations
- ✓

Ch 4: Spark SQL: Basics

- ✓ Spark SQL Notebooks
- ✓ Creating Catalog
- ✓ Creating Schemas
- ✓ Creating Tables
- ✓ Spark Data Types
- ✓ PySpark API: SQL Queries
- ✓ Dropping Objects
- ✓ Notebooks: Exports, Clone

Ch 5: Spark SQL: Table Types

- ✓ Delta Tables
- ✓ Managed Tables
- ✓ External Tables
- ✓ Data Partitioning
- ✓ Union, Views in Spark
- ✓ External Volumes

Ch 6: Spark SQL: Functions

- ✓ Math, Sort Functions
- ✓ String, DateTime Functions
- ✓ Conditional Statements
- ✓ SQL Expressions with expr()
- ✓ Volume for our Data Assets
- ✓ File Formats, Schema Inference
- ✓ Spark SQL Aggregations

Ch 7: Spark SQL: Time Travel

- ✓ Time Travel Concepts
- ✓ Spark DB: Logical Architecture

- ✓ Spark DB: Physical Store
- ✓ Data File Store
- ✓ Log File Store
- ✓ Time Travel
- ✓ DESCRIBE, EXTENDED
- ✓ HISTORY
- ✓ Version Numbers

Ch 8: Python: Introduction, Print

- ✓ Python Introduction
- ✓ Python Versions
- ✓ Python Implementations
- ✓ Python in Spark (PySpark)
- ✓ Python Print()
- ✓ Single, Multiline Statements

Ch 9: Python: Variables

- ✓ Python Variables
- ✓ Variable Declarations
- ✓ Variable Values
- ✓ Value Types
- ✓ Multi Variable Values
- ✓ Common Variable Values
- ✓ Realtime use of Variables

Ch 10: Python: Operators

- ✓ Need for Operators
- ✓ Arithmetic Operators
- ✓ Assignment Operators
- ✓ Comparison Operators
- ✓ Operator Precedence
- ✓ Operands in Python

Ch 11: Python: Control Statements

- ✓ Python Control Structures
- ✓ If ... Else Statement
- ✓ Short Hand If
- ✓ ELIF & ELSE IF Statements
- ✓ OR, AND Concepts
- ✓ Python Loops

Ch 12: Python: Data Types

- ✓ Python Data Types
- ✓ Integer / Int Data Types
- ✓ Float, String Data Types

- ✓ List Data Type
- ✓ Dictionary Data Type
- ✓ Tuple Data Type
- ✓ List Items, Indexes
- ✓ Tables Versus Dictionaries

Ch 13: Python: Modules & Dataframes

- ✓ Python Modules
- ✓ Pandas
- ✓ NumPy
- ✓ Dataframe Concepts
- ✓ Handling Nulls
- ✓ Data Cleansing Concepts
- ✓ Pandas Series, arrays
- ✓ Indexes, Indexed Lists

Ch 14: PySpark Concepts

- ✓ Constructing Dataframes
- ✓ Single List Dataframes
- ✓ Multi List Dataframes
- ✓ Pandas Dataframes
- ✓ Contact & Union
- ✓ Merge
- ✓ Join Options with Dataframes

Ch 15: Medallion Architecture - 1

- ✓ Medallion Architecture
- ✓ Aggregated Data Loads
- ✓ Broze, Silver and Gold
- ✓ Temp Views
- ✓ Spark Tables (Parquet)
- ✓ Work with File Sources

Ch 16: Medallion Architecture - 2

- ✓ Medallion Architecture
- ✓ Azure SQL DB Connections
- ✓ Joining Source Tables
- ✓ Dataframes, Temp Views
- ✓ Aggregated Data Loads
- ✓ Gold Data Consumption

Ch 17: Delta Lake

- ✓ Databricks DeltaLake
- ✓ Schema Evolution
- ✓ Azure SQL DB Connections
- ✓ Dataframes, Temp Views

- ✓ Delta Table API
- ✓ Deleting Records
- ✓ Updating Records
- ✓ Merging Records
- ✓ Old History Retention
- ✓ Delta Transaction Log

Ch 18: PySpark: Widgets

- ✓ PySpark Parameters
- ✓ Text Widgets
- ✓ User Parameters
- ✓ Manual Executions
- ✓ Automations
- ✓ UI & JSON For Widgets

Ch 19: Lake Flow Jobs

- ✓ Worksflows & CRON
- ✓ Job Compute, Running Tasks
- ✓ Python Script Tasks
- ✓ Parameters into Notebook Tasks
- ✓ Parameters into Python Script Tasks
- ✓ Concurrent Executions, Dependencies
- ✓ Branching Control with the If-Else Task

Ch 20: Pyspark: Auto Loader - 1

- ✓ AutoLoader Concept
- ✓ Cloudfiles Architecture
- ✓ Checkpoint Configurations
- ✓ Creating Directories
- ✓ Reading Databricks Cloud Sources
- ✓ Initial Loads

Ch 21: PySpark: Auto Loader - 2

- ✓ Reading Streams with Auto Loader
- ✓ Reading a Data Stream
- ✓ Manually Cancel your Data Streams
- ✓ Writing to a Data Stream
- ✓ Schema Evaluation Modes
- ✓ Adding New Columns
- ✓ Workspace Modules

Ch 22: Lake Flow Declarative Pipelines

- ✓ SDP: Spark Declarative Pipelines
- ✓ Delta LIVE Tables
- ✓ Streaming Data Loads
- ✓ Bronze, Silver, Gold Data

- ✓ Materialized Views
- ✓ Pipeline Clusters
- ✓ Databricks CLI
- ✓ Data Quality Checks

Ch 23: Databricks Optimizations

- ✓ Lazy Evaluation
- ✓ Explain Plan
- ✓ Caching
- ✓ Data Shuffling
- ✓ Broadcast Joins
- ✓ Partitions
- ✓ Data Skipping
- ✓ Z Ordering
- ✓ Liquid Clustering
- ✓ VACUUM
- ✓ OPTIMIZE

Ch 24: Security Concepts

- ✓ Overview of ACLs
- ✓ Adding a New User to Workspace
- ✓ Workspace Access Control
- ✓ Cluster Access Control
- ✓ Groups & LakeBridge
- ✓ Access Keys (Tokens)

Ch 25: Version Control & GitHub

- ✓ Local Development
- ✓ Runtime Compatibility
- ✓ Git and GitHub Pre-requisites
- ✓ Git and GitHub Basics
- ✓ Linking to GitHub & Databricks
- ✓ Databricks Git Folders
- ✓ Project Code to GitHub
- ✓ Adding Modules to the Project Code
- ✓ Databricks Job Updates, Runs

Ch 26: Databricks Data Engineer Associate Exam

- ✓ Databricks Data Engineer Associate Exam
- ✓ AVRO Formats
- ✓ Exam Guidance
- ✓ Databricks Exam Pattern
- ✓ Exam Q & A, Scenarios

Module 3: Realtime Project (Ecommerce Platform)

Project Objective:

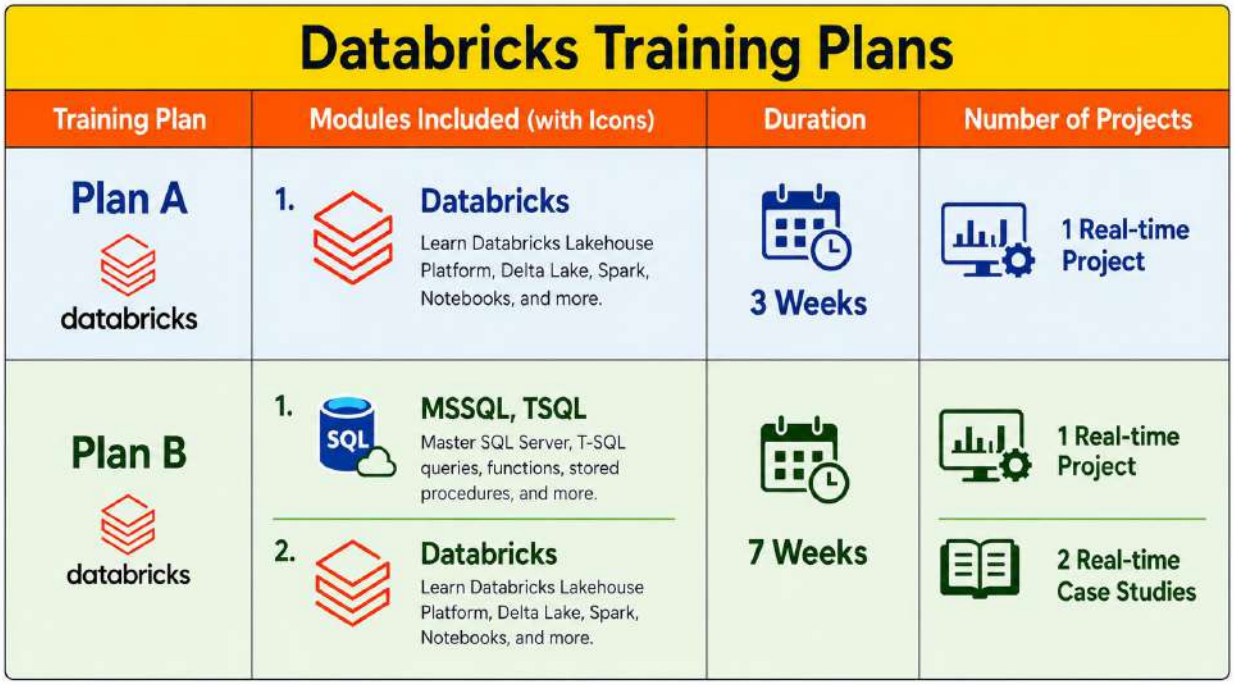
Build an end-to-end Azure Data Engineering solution to process, transform, and analyze e-commerce business data from multiple sources.

Technologies Used:

- Spark
- SparkSQL
- Python ETL
- PySpark
- Unity Catalog
- SDP
- Delta LIVE Tables
- Auto Loader
- Optimizations

Skills Gained:

- Data Ingestion & ETL Development
- Azure Data Factory Pipelines
- Databricks & PySpark Transformations
- Data Lake Architecture
- Medallion Architecture (Bronze/Silver/Gold)
- Real-Time Industry Experience




SQL SCHOOL
Premium Quality Training
LEARN TODAY.
LEAD TOMORROW!
Build In-Demand Skills.
Boost Your Career.
With SQL School Training Institute.
EXPERT TRAINERS
Learn from industry professionals
PRACTICAL LEARNING
Real-world projects & hands-on training
PREMIUM QUALITY
High-quality content & learning experience
CAREER SUPPORT
Placement assistance & guidance
ENROLL NOW & TRANSFORM YOUR FUTURE!
Better Skills. Better Opportunities. Better You.
WHY CHOOSE SQL SCHOOL?
Comprehensive Courses
Hands-on Projects
Placement Assistance
Industry Recognized Certification
Flexible Batch Timings
QUALITY TRAINING.
REAL RESULTS.
JOIN THOUSANDS OF SUCCESS STORIES!
CALL NOW
+919951440801
VISIT US
www.sqlschool.com
OUR CENTERS
Hyderabad | Bangalore | Online
YOUR SUCCESS IS OUR MISSION!