

Microsoft Fabric

• Real-Time Working • Detailed Subject • Interview Suitable

- Mr.Pavan [10+ Years of IT Experience]
- 50 - 60 hrs (Normal Track) , Daily 1 hour
- Normal / Fast Track / 1 on 1 / Customized
- Rs. 25,000
- 7 AM, 8 AM, 9 AM, 7 PM, 8 PM



INSTITUTE PROVIDES

- * One **Near Real Time** Project
- * In-Depth **Theory & Practical** Material
- * Complete **Practical Oriented** Training
- * Mock Interviews
- * Case Studies / User Stories / Sprints
- * Daily **Live Class Videos**
- * **FAQ Tests** in Whatsapp
- * **Resume Preparation** Sessions



COMPONENTS	
Azure Portal (Data Engineering)	7 days
Data Flow Gen2	5 days
Data Pipeline	12 days
Apache Spark(NoteBooks)	7 days
Power BI Reports	7 days
Lake House & Warehouse	8 Days
Workspace, ShortCuts , SQL End Points & One Lake	6 days
MS SQL Server & Database Fundamentals	5 days

MODULE 1: INTRODUCTION TO MICROSOFT AZURE, FABRIC & POWER BI

- ▶ Introduction to Azure Data Engineering, Data Analyst & Data Scientist.
- ▶ Introduction to Azure Cloud (Resources | Services) & Type of Clouds.
- ▶ Introduction to Microsoft Fabric
- ▶ Introduction to Microsoft Azure
- ▶ Introduction to Microsoft Power BI

MODULE 2: INTRODUCTION TO MICROSOFT FABRIC

- ▶ Overview of Microsoft Fabric
- ▶ Key Features and Capabilities
- ▶ Use Cases and Benefits
- ▶ MS Fabric Account Creation
- ▶ Fabric Capacity (SKU)
- ▶ Comparison with Other Data Engineering Services



MODULE 3: MICROSOFT FABRIC DEVELOPER ROLES AND RESPONSIBILITIES

- ▶ Overview of the Major Roles Performed by a Microsoft Fabric Developer
- ▶ Responsibilities in Data Engineering, Data Integration, Data Warehousing, Real-Time Analytics, Data Science, & Business Intelligence

MODULE 4: TOOLS & SERVICES IN MICROSOFT FABRIC

- ▶ Introduction to the various tools and services available in Microsoft Fabric
 - Workspaces
 - Data Lakehouse
 - Data Lake & Delta Lake
 - Data Warehouse
 - One Lake Storage (One Lake Explore & Data Studio)
 - Shortcuts
 - SQL End Points
 - Data Factory Pipelines & Activities
 - Data Flow Gen1
 - Data Flow Gen2
 - Notebooks
 - Apache Spark
 - Spark Job Definitions
 - Real-Time Analytics
 - Power BI
 - Data Activator
 - Data Gateway
 - Data Science



MODULE 5: SUBSCRIPTION MANAGEMENT IN MICROSOFT FABRIC

- ▶ How to create a subscription to Microsoft Fabric
- ▶ Exploring subscription options and settings in Microsoft Fabric

MODULE 6: WORKSPACE CREATION AND MANAGEMENT IN MICROSOFT FABRIC

- ▶ How to create and manage workspaces in Microsoft Fabric
- ▶ Workspace configurations and settings

MODULE 7: LAKEHOUSE IN MICROSOFT FABRIC

- ▶ Lakehouse: -
 - Introduction to the Lakehouse concept
 - Creating a Lakehouse in Microsoft Fabric
 - Data Lakehouse vs Data Warehouse
 - Exploring options and features in Lakehouse
 - Work with Delta Lake tables in Microsoft Fabric
 - Uploading files to the Lakehouse using (Browser & One Lake)
- ▶ Loading Data Using Data Factory Pipelines | Data Flow | Notebooks
 - Loading data from Azure Data Lake Gen2 to the Lakehouse
 - Loading data from Azure SQL Database to the Lakehouse
 - Loading data from On-Premises SQL to Lakehouse
 - Loading data using Data Flow Gen2
 - Loading data into the Lakehouse using Data Factory Pipelines
 - Loading data into Lakehouse using Notebooks



MODULE 8: SQL END POINTS IN MICROSOFT FABRIC

- ▶ Overview of SQL End Points
- ▶ Connecting to SQL End Points
- ▶ Writing Data on Tables in Lakehouse using SQL End Points
- ▶ Creating Visual Queries using SQL End Points
- ▶ Creating Modeling using SQL End Points
- ▶ Creating New Measures
- ▶ Creating New Reports Using Power BI
- ▶ SQL Commands, Views, SP, Joins, Functions



MODULE 9: TOOLS & SERVICES USED UNDER MICROSOFT AZURE DE | BI

- ▶ **Creating Azure Subscriptions (Free, Student & Pay As You Go)**
- ▶ Creating Resource Groups
- ▶ Creating Resource | Services
- ▶ Azure Storage Accounts (Blob, File Share, Table & Ques)
- ▶ Azure Data Lake Store (Data Lake Gen1 & Data Lake Gen2)
- ▶ Azure Data Lake Analytics
- ▶ Azure SQL DB (Azure SQL SERVER)



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- ▶ Azure Data Factory - Pipelines, Various Activities, Type of Data Set, Data Flow, Power Query, Type of Integration Runtime, Linked Services & Triggers
- ▶ Azure Synapse DWH & Analytics

MODULE 10: DATA FACTORY PIPELINES, DATA FLOW GEN1 & DATA FLOW GEN2 (USING AZURE PORTAL)

- ▶ Exploring Data Factory Activities
- ▶ Designing Pipelines to copy data from Blob Storage to Lakehouse
- ▶ Designing Pipelines to copy data from On-Premises SQL to Lakehouse
- ▶ Designing Pipelines to copy data from Data Lake Gen2 to the Lakehouse
- ▶ Designing Pipelines to copy data from HTTPS websites to the Lakehouse
- ▶ Designing Pipelines to copy data from Lakehouse to Data Warehouse
- ▶ Designing Data Flows Gen2 to copy data from the Lakehouse to the Data Warehouse applying transformations
- ▶ Scheduling and monitoring of pipelines



MODULE 11: SYNAPSE WAREHOUSE IN MICROSOFT FABRIC

- ▶ Introduction to Data Warehouse
- ▶ Dimensions and Fact Tables in Data Warehousing
- ▶ Star and Snowflake Schema Concepts
- ▶ Differentiating Dimension & Fact Tables
- ▶ Slowly Changing Dimensions
- ▶ Creating a Data Warehouse in Microsoft Fabric
- ▶ Creating Tables & Relationships in the Data Warehouse
- ▶ Creating visual queries in the Data Warehouse
- ▶ **Loading Data Using Data Factory Pipelines | Data Flow | Notebooks: -**
- ▶ Copying Data from Blob Storage into the Data Warehouse using Copy Activity.
- ▶ Cross-Querying Data from the Lakehouse into the Data Warehouse
- ▶ Creating Staging Tables in the Data Warehouse
- ▶ Loading & Transforming Data from Lakehouse to Data Warehouse Tables using Data Flow Gen2
- ▶ Loading and Transforming Data from Lakehouse to Data Warehouse Tables using Data Factory Pipelines
- ▶ Loading & Transforming Data from Lakehouse to Data Warehouse Tables using Notebooks
- ▶ Creating reports using Power BI from the Data Warehouse



MODULE 12: SHORTCUTS IN MICROSOFT FABRIC

- ▶ Understanding Shortcuts in Lakehouse
- ▶ How to Create Shortcuts
- ▶ Querying data using Shortcuts in the Lakehouse from Various Sources System

MODULE 13: APACHE SPARK, NOTEBOOKS, SPARK JOB DEFINITIONS, AND DELTA LAKE TABLES

- ▶ Configuring Spark in a Microsoft Fabric workspace
- ▶ Writing Py Spark and Spark SQL Notebooks
- ▶ Creating Delta Lake Tables in the Lakehouse using Notebooks
- ▶ Using Spark Data Frames to analyze and transform data
- ▶ Using Spark SQL to query data in tables and views
- ▶ Visualizing data in a Spark notebook
- ▶ Running Spark code using Spark Job Definitions



MODULE 14: POWER BI IN MICROSOFT FABRIC

- ▶ Introduction to Power BI
- ▶ Power BI Desktop
- ▶ Power BI Online Services
- ▶ Power BI Mobile App
- ▶ Creating Columns & Measures Using DAX
- ▶ Connecting to Different Data sources
- ▶ Design reports and Dashboards
- ▶ Implementing Bookmarks
- ▶ Publishing Power BI report
- ▶ Row-Level Security
- ▶ Gateways in Power BI
- ▶ Data Refresh Schedules in Power BI
- ▶ Design reports and Dashboards



MODULE 15: CASE STUDY: - MICROSOFT FABRIC

- ▶ Creating the Free Microsoft Fabric & Azure account.
- ▶ Create the workspace in Fabric and Build a Lakehouse in fabric.
- ▶ Install One Lake Explorer & Data Studio
- ▶ Create Your First warehouse in Fabric | | Lakehouse vs Warehouse
- ▶ Microsoft Fabric: Introduction to Data Factory Experience | Pipelines & Dataflows
- ▶ End-to-End Scenario with Data Factory Pipelines and Dataflows Gen2
- ▶ End-to-End Mini Project: Data Factory Pipelines and Dataflows Gen2
- ▶ Apache spark in Fabric & Notebook creation
- ▶ Work with Delta Lake tables in Microsoft Fabric
- ▶ Data Factory Pipeline, Activities, Data Set & Linked Service
- ▶ Copy data from REST API to Lakehouse in Fabric using Bearer Token
- ▶ Moving Multiple Folders from Data Lake Storage Gen2 to Lakehouse
- ▶ Ingest Data from On Premise SQL Server to Lakehouse| Data Gateway
- ▶ Microsoft Fabric: Copy data from Azure SQL DB to Lakehouse Table | Query | Stored proc
- ▶ Microsoft Fabric: Copy Multiple tables from Azure SQL DB to Lakehouse dynamically
- ▶ Ingest data from on premise SQL server to Warehouse Incrementally
- ▶ Microsoft Fabric: Logging Fabric Pipeline Logs to Warehouse table using stored proc
- ▶ Microsoft Fabric: Incremental data ingestion from Azure SQL DB to Warehouse in Fabric
- ▶ Azure Synapse and its Usage
- ▶ How to copy data from one blob to another blob using synapse pipelines

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- ▶ How to copy multiple latest files from blob to blob and how to copy file with appended timestamp
- ▶ Semantic model creation in fabric (Star & Snowflake) Schema
- ▶ Creation of Microsoft Power BI reports
- ▶ Connecting Power BI with Multiple sources & developing different format report.

CASE STUDY | PRACTICE ON AZURE ADF ETL: -

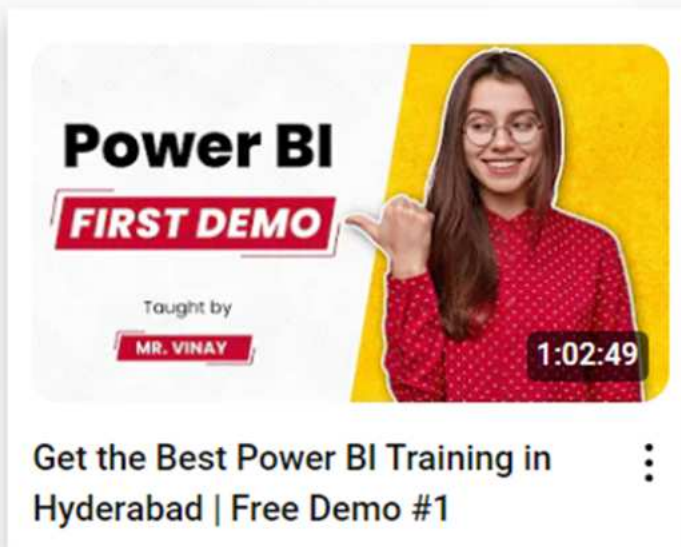
- ▶ Moving data from Blob to Blob
- ▶ Moving data from Blob to Azure SQL Server
- ▶ Moving data from SQL Server to Blob
- ▶ Moving data from ADLS to Azure SQL Server
- ▶ Moving data from ADLS to ADLS (Gen1 & Gen2)
- ▶ Azure Integration Runtime & Types
- ▶ Azure Self Hosted Integration Runtime
- ▶ SSIS Integration runtime for Lift & Shift operation
- ▶ Moving Data from Blob to On Premise SQL Server
- ▶ Moving Data from On Premise SQL Server To Azure SQL
- ▶ Moving Data from On Premise files to Azure SQL Server
- ▶ Moving Data from On Premise files to ADLS and to Azure SQL Server
- ▶ Load data from Multiple tables into SQL Server using dynamic expressions
- ▶ Load data from Multiple Files with SQL Server
- ▶ Mail Alter configuration in ADF ETL pipeline
- ▶ Stored procedure inputs and outputs parameters configuration to load the data
- ▶ Use dynamic parameters within the pipeline
- ▶ Trigger a pipeline using another pipeline
- ▶ Loading the data into Azure DWH Synapse from multiple sources

MODULE 16: END-TO-END PROJECT IMPLEMENTATION

- ▶ Implementing an End-To-End Project (Telecommunication) using all the Tools & Services under the Microsoft Fabric



A Big Thank you



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COURSES WE OFFER

POWER BI

DATA ANALYST/ ANALYTICS

MICROSOFT FABRIC

SQL SERVER

ADE / AZURE BI

ADF: AZURE DATA FACTORY

ADB: AZURE DATA BRICKS

MSBI

POWER APPS

POWER AUTOMATE

INFORMATICA

EXCEL

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