VINAY TECH

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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

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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

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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.

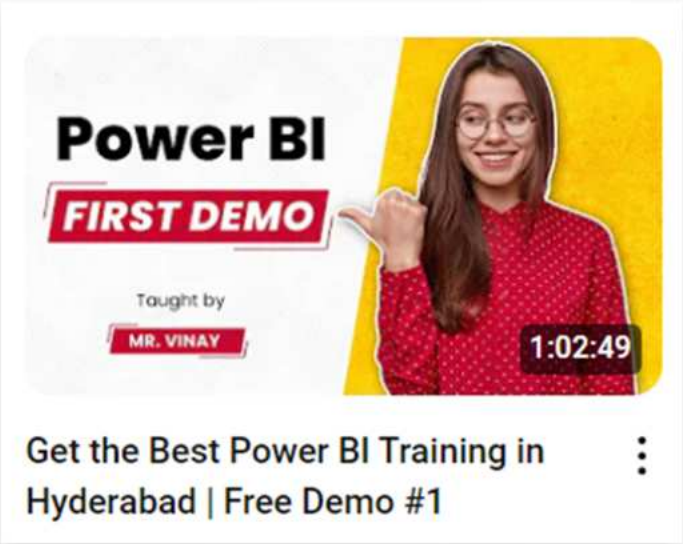
CASE STUDY | PRACTICE ON AZURE ADF ETL: -

- 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
- PYTHON

For Regular Updates on Demos (Free)

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