

Azure Data Factory

Module 1: Introduction to Azure Data Factory (ADF)

- Overview of ADF
- Objectives and Scenarios for using ADF
- Authoring ADF Pipelines
- Introduction to Source Control in ADF

Module 2: Copy Activities and Connectors

- Copy Activity in ADF
- Copy Data Tool in ADF
- Connecting to Different Data Sources
- Creating Linked Services

Module 3: Transformation and Control Flow

- Identify and explain different transformation activities
- On-Demand vs BYO Compute environments
- Controlling flow of activities in the pipeline

Module 4: Azure Data Factory CI/CD

- Connecting ADF to DevOps Release pipelines

Module 5: Mapping Data Flow

- Introduction to Mapping Data Flow (MDF)
- Debugging in MDF
- Introduction to MDF Expression Builder
- Scenarios for using Mapping Data Flow

Module 6: Security and Monitoring

- Security in ADF and integration with Azure Security
- Securely storing credentials for ADF
- Using ADF Integration Runtimes
- Monitoring ADF within the ADF and Azure Portals

Module 7: Error Handling and Logging in ADF

- Best practices for error handling in ADF pipelines
- Configuring logging and monitoring for better troubleshooting

Module 8: Advanced Pipeline Orchestration

- Use of triggers for scheduling and automating pipelines
- Pipeline dependency management and execution order

Module 9: Performance Optimization

- Techniques for optimizing data movement and transformation performance
- Monitoring and optimizing data integration pipelines for efficiency

Module 10: Data Governance and Compliance

- Implementing data governance policies in ADF
- Ensuring compliance with data protection regulations

Module 11: Integration with Azure Services

- Integrating ADF with other Azure services
 - Azure Data Lake Storage
 - Azure SQL Database
 - Azure Synapse Analytics

Module 12: Advanced Mapping Data Flow Features

- Advanced usage of Mapping Data Flow transformations
- Handling complex data transformations and scenarios

Module 13: Hybrid Cloud Scenarios

- Implementing ADF in hybrid cloud environments
- Connecting on-premises data sources with ADF pipelines