Course Curriculum: Power Automate for Azure Data Engineers

Course Title:

Power Automate for Azure Data Engineers: Integrating with Fabric & Databricks

Target Audience:

- Azure Data Engineers
- DataOps/Platform Engineers
- Professionals familiar with Microsoft Fabric, Databricks, and Azure services

Duration:

4 days

Prerequisites:

- Familiarity with Microsoft Fabric and OneLake
- Hands-on experience with Azure Databricks
- Understanding of Azure Data Factory and Logic Apps
- Some exposure to APIs, REST, or webhooks is helpful

Day 1:

Module 1: Power Automate Basics for Data Engineers

- What is Power Automate? Concepts and capabilities
- Types of flows: Automated, Instant, Scheduled, Desktop
- Licensing & environment considerations
- When to use Power Automate vs ADF vs Logic Apps

Day 2:

Module 2: Triggers and Connectors

- Working with triggers: HTTP, schedule, Azure events
- Connectors overview: SharePoint, Outlook, Teams, Azure services
- Custom connectors for Databricks and Fabric APIs

Day 3:

Module 3: Integrating with Microsoft Fabric

- Using Power Automate to trigger Fabric pipelines (Dataflows, Notebooks)
- Monitoring Fabric pipeline status with webhooks or REST API
- Automating OneLake data ingestion and catalog tagging

Day 4:

Module 4: Databricks Integration

- Triggering Databricks Jobs and Workflows via REST API
- Authenticating securely (Azure AD, PAT tokens)
- Handling job outputs and failure conditions
- Sending results to Power BI, SharePoint, or alerts

Day 5:

💡 Hands-on: Create a simple flow that triggers on a schedule, sends Teams notification, and logs metadata in Excel.

💡 Hands-on: Create a flow that triggers a Databricks job on a schedule, monitors it, and sends an email if it fails.

Day 6:

Module 5: Monitoring & Alerts

- Error handling & retry strategies
- Flow logging and diagnostics (Run history, flow checker)
- Integration with Application Insights / Log Analytics

Day 7:

Module 6: Real-World Scenarios

- Event-driven architecture (e.g. file landing in OneLake triggers Fabric pipeline via Power Automate)
- Slack-style alerts from Azure SQL triggers
- Automated metadata documentation
- Approval flows for data access or pipeline changes

Day 8:

Module 7: Governance & CI/CD

- Organizing flows with solutions and environments
- Deployment pipelines for Power Automate
- Secure credential storage with Azure Key Vault

Day 9:

💡 Hands-on: End-to-end scenario: file drop in OneLake → trigger Fabric pipeline → on success, trigger Databricks job → send formatted summary to Teams.

Day 10 to Day 13:

Final Project:

Build and present a custom Power Automate solution integrating:
- Fabric Pipeline
- Databricks Workflow
- OneLake trigger or data event
- Alerting or approval flow in Teams/Outlook