Mastering
Data Engineering Git & CI/CD
with Microsoft Fabric

Hands-on workshop

Transform your data engineering practices with enterprise-grade DevOps for Microsoft Fabric

Full day workshop

Hands-on Labs

Intermediate Level

Production Ready

8 hours of learning

5 modules

1 complete solution

∞ reusable patterns

Why this workshop?

Master the complete DevOps lifecycle for Microsoft Fabric solutions

End-to-End CI/CD

Build a complete DevOps pipeline from scratch, deploying across multiple environments using fabric-cli and fabric-cicd tools.

Real-World Architecture

Work with production-ready medallion architecture featuring Bronze, Silver, and Gold layers with complete data lineage.

Git Integration Mastery

Master bidirectional synchronization between Fabric workspaces and Git repositories with conflict resolution.

Production Deployment

Implement enterprise patterns with deployment rules, environment variables, and automated quality gates.

What you'll master

Core Skills

- Version control integration with Git
- Automated CI/CD Pipeline Creation
- Multi-Environment Deployment
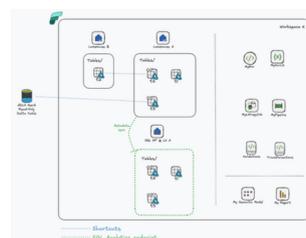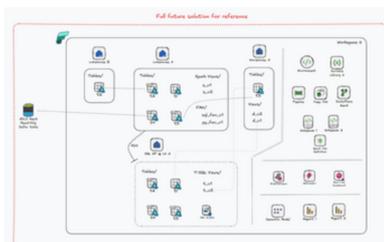- Schema Evolution Management
- Deployment Automation with Fabric-CLI

Advanced Techniques

- Medallion Architecture Implementation
- Enterprise Governance Patterns
- Complex Troubleshooting Strategies
- Production Scaling Approaches
- Azure DevOps Integration

Deliverables

- Complete "Contoso Turbo" Solution
- Reusable CI/CD Templates
- Automated Deployment Pipeline
- Best Practices Documentation
- Troubleshooting Playbook

Perfect for

Data Engineers

Solution Architects

DevOps Engineers

Analytics Teams

Professionals ready to implement enterprise DevOps for Fabric

Workshop Agenda

Progressive hands-on modules building toward complete automation

01 Environment Setup & First Deployment
Configure your development environment, install fabric-cli tools, and deploy your first complete Microsoft Fabric solution with validation.

02 Git Integration & Version Control
Master bidirectional synchronization between Fabric UI and Git, handle merge conflicts, and implement collaborative development workflows.

03 Multi-Workspace Development
Create isolated development environments, implement effective branching strategies, and manage parallel development streams.

04 Deployment Pipelines & Production Automation
Configure deployment rules, environment variables, and build complete DEV→TEST→PROD automated promotion pipelines.

05 Azure DevOps CI/CD & Schema Evolution
Integrate with Azure DevOps, handle complex schema changes, implement rollback strategies, and manage production deployments.

Prerequisites

✓ Microsoft Fabric access (trial or organizational)

✓ Basic Git knowledge and version control concepts

✓ Python basics and command-line familiarity

✓ Understanding of data engineering concepts

✓ Development environment (Windows/Mac/Linux)

✓ Internet access for cloud resources