



DATA WORKFLOW OPTIMIZATION

Linking, Cleaning and Auto Reporting



MAY 22, 2026



10:00 AM – 5:00 PM



ONLINE TRAINING

COURSE MODULES

Module 1: Understanding Modern Data Workflows

- What is a data workflow & why optimization matters
- Common reporting problems in organizations
- Manual vs automated reporting comparison
- Designing an end-to-end data workflow
- Best practices for scalable reporting systems

Module 2: Data Linking & Integration

- Linking multiple Excel files dynamically
- Connecting data from:
 - Excel files & folders
 - CSV / Text files
 - Databases (overview)
- Folder-based automation (auto-update when new files added)
- Managing source dependencies
- Handling changing file structures

Module 3: Data Cleaning & Transformation (Power Query)

- Removing blanks, duplicates, and errors
- Standardizing text (upper/lower/proper case)
- Splitting, merging & extracting columns
- Handling missing, null & incorrect values
- Date & time transformation
- Numeric & currency formatting
- Conditional columns & custom logic
- Data type optimization for performance

Module 4: Advanced Power Query Techniques

- Append vs Merge queries (real scenarios)
- Unpivoting & reshaping data
- Grouping & aggregations
- Custom columns using M Code

- Error handling & data validation
- Query performance optimization
- Reusable query templates

Module 5: Data Modeling with Power Pivot

- Creating relationships between tables
- Star schema fundamentals
- Calculated columns vs measures
- Introduction to DAX (business-focused)
- KPIs & time-based calculations
- Model optimization for faster reporting

Module 6: Automated Reporting & Dashboards

- Building refresh-ready PivotTables
- Creating dynamic dashboards
- Using slicers & timelines
- Auto-refreshing reports with one click
- Report version control
- Separating data, logic & presentation

Module 7: Automation & Smart Reporting

- Refreshing reports automatically
- Using Excel Tables for dynamic ranges
- Intro to macros for refresh automation
- Error-proof reporting frameworks
- Designing reports for management & stakeholders

FACILITATOR

Ms. Sumaira Ghouri is an experienced Corporate Trainer, Course Facilitator, Lecturer and Public Speaker. She has more than 12 years' experience and she has trained and taught more than 2500 business professionals. Ms. Ghouri is the First Female Microsoft Office Corporate Trainer in Pakistan.

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