



## **Advanced Power BI Data Analysis and Reporting Training Course**

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### Overview

Advanced Power BI Data Analysis and Reporting Training Course is a five-day advanced course for data analysts, business intelligence developers, reporting specialists, finance analysts, and decision-support teams who leave with a Governed Power BI Decision Reporting Pack. Participants connect Power Query transformations, semantic modeling, DAX, performance analysis, interactive reports, analytical features, row-level security, refresh, publishing, and workspace governance. Agile Leaders Training Center develops practical advanced Power BI data analysis and reporting capability.

### Who Should Attend

- Data analysis functions responsible for transforming data into governed analytical outputs
- Business intelligence development functions responsible for semantic models and report performance
- Reporting functions responsible for interactive decision reports and distribution
- Finance analysis functions responsible for measures, trends, scenarios, and management reporting
- Decision-support functions responsible for validated insights and controlled access

The course assumes participants can navigate Power BI Desktop, load data, create basic visuals, and write simple measures, and leaves out introductory navigation, spreadsheet-only reporting, data engineering, and certification exam preparation.

### Departments and Industries

The course supports departments and industries that develop and govern analytical reporting in Power BI.

- Banking finance and risk reporting
- Retail commercial and customer analytics
- Healthcare operations reporting
- Manufacturing performance analysis
- Telecommunications service intelligence

### Learning Objectives

By the end of this course, participants will be able to:



- Apply advanced Power Query transformation patterns
- Build optimized Power BI semantic models
- Use DAX measures and evaluation context
- Analyze trends, outliers, clusters, and scenarios
- Evaluate report performance, security, and distribution
- Build a Governed Power BI Decision Reporting Pack

## **Course Agenda**

### **Day 1: Engineer Analytical Data**

- Power Query Transformation Dependency Map
- Query Folding and Refresh Readiness Checklist
- Data Type and Quality Validation Profile
- Reusable Parameter and Function Pattern
- Source-to-Model Reconciliation Record

### **Day 2: Design the Semantic Model**

- Power BI Star Schema Design Canvas
- Fact and Dimension Grain Definition Sheet
- Relationship Direction and Cardinality Matrix
- Date Table and Time Intelligence Foundation
- Semantic Model Performance Review

### **Day 3: Build Advanced DAX Analysis**

- DAX Row and Filter Context Map
- CALCULATE Modifier Decision Guide
- Advanced Measure Branching Pattern
- Time-Series and Variance Measure Set
- DAX Performance Analyzer Diagnostic

### **Day 4: Govern Reports and Distribution**

- Interactive Report Navigation Blueprint
- Statistical Summary and Outlier Visual Method
- What-If Scenario Parameter Model
- Row-Level Security Role Matrix
- Workspace Publishing and Refresh Control Plan



## Day 5: Practice Decision Reporting

- Exercise: Reconcile an Advanced Query Workflow
- Exercise: Validate a Semantic Model
- Exercise: Diagnose DAX Context and Performance
- Exercise: Test Report Security and Distribution
- Capstone: Governed Power BI Decision Reporting Pack

## Practical Exercises

The course uses suggested activities based on banking, retail, healthcare, manufacturing, and telecommunications reporting.

- Suggested activity: transform and reconcile source data through reusable Power Query patterns and validation evidence.
- Suggested activity: design a star schema with documented grain, relationships, date logic, and performance choices.
- Suggested activity: build and debug DAX measures for time, variance, scenarios, and analytical interpretation.
- Suggested activity: assemble navigation, analytical visuals, security roles, refresh controls, and publishing decisions into a reporting pack.

## FAQs

### Who suits advanced Power BI data analysis and reporting training, and what does it assume?

Data analysis, business intelligence, reporting, finance analysis, and decision-support functions suit the training; it assumes practical experience with Power BI Desktop, basic visuals, loaded data, and simple measures.

### How does advanced Power BI data analysis differ from introductory Power BI training?

Advanced Power BI data analysis concentrates on reusable transformations, semantic-model design, DAX context, performance, analytical features, security, refresh, and governance, while introductory training covers basic navigation, loading, visuals, and simple reports.

### Why does star schema design matter in Power BI?

Star schema design separates facts from descriptive dimensions, clarifies grain, reduces ambiguous relationships, supports reusable measures, and helps analytical queries remain understandable and efficient.



## **How should developers diagnose DAX performance?**

Developers should inspect measure dependencies, evaluation context, repeated calculations, relationship behavior, model size, visual query patterns, Performance Analyzer evidence, and alternative measure designs before changing a report.

## **How should Power BI reporting access be governed?**

Power BI reporting access should align workspace roles, row-level security, audience membership, data sensitivity, refresh ownership, release controls, usage monitoring, and periodic access review.

## **Conclusion**

Participants take back a Governed Power BI Decision Reporting Pack linking queries, reconciliation, semantic models, DAX, analytical visuals, scenarios, performance, security, refresh, and publishing. It changes disconnected reports into a controlled decision-reporting workflow. The pack supports coordinated work across data, business intelligence, finance, reporting, and decision-support functions.

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# Training Course Categories

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