

## DATA WAREHOUSING AND BI TOOLS

*“Transforming Data into Strategic Insight through Warehousing and Business Intelligence Platforms”*

### Schedule

Date	Venue	Fees (Face-to-Face)
22 - 26 Jun 2026	Dubai, UAE	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

### Introduction

In today’s data-driven world, organizations depend on robust data warehousing and business intelligence (BI) platforms to convert raw data into actionable insight. Effective data warehousing ensures structured data storage and retrieval, while BI tools enable real-time reporting, dashboarding, and decision-making.

This comprehensive 5-day training provides participants with a deep understanding of data warehouse architecture, ETL (Extract, Transform, Load) processes, dimensional modeling, and the use of leading BI tools such as Power BI, Tableau, or Qlik. The course blends theory with hands-on labs to help professionals design scalable data systems and deliver impactful business analytics.

### Objectives

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

- Understand data warehousing concepts, architecture, and modeling techniques
- Design ETL pipelines to collect, clean, and consolidate data
- Use BI tools to create interactive dashboards and visual reports
- Integrate data from multiple sources into a centralized warehouse
- Apply best practices in data governance, quality, and visualization

## Why Attend

- Learn how to design and implement a full-scale data warehousing solution
- Gain hands-on experience with popular BI tools for enterprise analytics
- Improve decision-making through clean, accessible, and integrated data
- Align IT and business teams through effective data visualization
- Prepare for roles in data engineering, analytics, and reporting

## Target Audience

This program is designed for:

- Data Analysts and Business Intelligence Developers
- IT Managers and Data Architects
- Database and ETL Developers
- Business and Reporting Analysts
- Anyone involved in designing or using BI systems

## Individual Benefits

Key competencies that will be developed include:

- Data warehouse schema design (star, snowflake)
- ETL development and performance optimization
- Creation of dynamic dashboards and data visualizations
- Data source integration and query writing
- Understanding of analytics lifecycle and data governance

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved business insight through consolidated data reporting
- Faster, more informed decision-making across departments
- Reduced reporting errors and manual data preparation
- Standardized data structures for enterprise-wide use
- Stronger data governance, access control, and analytics culture

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - BI architecture, DW concepts, market tools comparison
- Case Studies - Corporate data strategy implementations
- Workshops - Dimensional modeling, ETL building, dashboard creation
- Peer Exchange - Business reporting challenges and BI usage
- Tools - Power BI, Tableau, SQL, data modeling software, ETL tools

## Course Outline

**Training Hours: 7:30 AM - 3:30 PM** Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

### Day 1: Fundamentals of Data Warehousing

- Module 1: Introduction to Data Warehousing (07:30 - 09:30) • OLTP vs OLAP, benefits, and use cases
- Module 2: Data Warehouse Architecture (09:45 - 11:15) • Staging, integration, presentation layers
- Module 3: Dimensional Modeling - Star and Snowflake Schemas (11:30 - 01:00) • Facts, dimensions, surrogate keys
- Module 4: Workshop - Design a Dimensional Model (02:00 - 03:30) • Sales or inventory-based scenario

### Day 2: Data Integration and ETL Processes

- Module 5: ETL Tools and Concepts (07:30 - 09:30) • ETL vs ELT, batch vs real-time
- Module 6: Data Cleaning and Transformation Techniques (09:45 - 11:15) • Normalization, deduplication, formatting
- Module 7: Building ETL Pipelines (11:30 - 01:00) • Hands-on with SQL or Python-based ETL
- Module 8: Workshop - Develop a Data Flow from Source to Warehouse (02:00 - 03:30) • Using sample files or database input

### Day 3: Business Intelligence Tools and Dashboards

- Module 9: Overview of BI Tools - Power BI, Tableau, Qlik (07:30 - 09:30) • Features, comparisons, licensing
- Module 10: Data Import, Cleansing, and Shaping (09:45 - 11:15) • Power Query, data types, filters
- Module 11: Creating Visuals, Reports, and KPI Dashboards (11:30 - 01:00) • Charts, slicers, maps, cards
- Module 12: Workshop - Build an Interactive Dashboard (02:00 - 03:30) • Sales or operations data visualization

### Day 4: Advanced Reporting and Governance

- Module 13: DAX and Calculated Fields (07:30 - 09:30) • Measures, calculated columns, time intelligence
- Module 14: Row-Level Security and Access Control (09:45 - 11:15) • Role definitions and user filters
- Module 15: Data Governance, Metadata, and Audit Trails (11:30 - 01:00) • Data lineage, documentation, quality
- Module 16: Workshop - Secure and Publish a BI Report (02:00 - 03:30) • Power BI workspace and permissions

### Day 5: Strategy, Integration, and Review

- Module 17: BI Integration with Enterprise Systems (07:30 - 09:30) • ERP, CRM, API data sources
- Module 18: KPIs and Business Storytelling (09:45 - 11:15) • Turn insights into executive visuals
- Module 19: Trends in Data Analytics and BI (11:30 - 01:00) • AI in BI, predictive dashboards, self-service BI
- Module 20: Final Workshop - Full BI Solution Design (02:00 - 03:30) • Group presentation of a real-world BI use case

## Certification

Participants will receive a Certificate of Completion in Data Warehousing and BI Tools, validating their ability to design data models, implement ETL pipelines, and create actionable dashboards using leading business intelligence platforms.

## Why Choose MAWA Events

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