

DATA MANAGEMENT AND BUSINESS INTELLIGENCE | DMBI-025

Data Warehouse Design and Dimensional Modelling

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Course content

Why Attend

Data warehouses integrate data from many systems to support reporting and analytics. Good dimensional design makes data easy to understand, query and trust.

This Aractech course covers data warehouse concepts and architectures, dimensional modelling, facts and dimensions, slowly changing dimensions, ETL and ELT design, data quality, modern cloud warehouses and performance. Participants design a dimensional model for a business process.

Course Methodology

- Design workshops
- Modelling exercises
- Case studies
- Demonstrations
- Group reviews

Course Objectives

- Explain data warehouse architectures
- Apply dimensional modelling techniques
- Design fact and dimension tables
- Handle slowly changing dimensions
- Design ETL and ELT processes
- Optimise and govern warehouses

Target Audience

- BI developers
- Data engineers

Course content

- Data architects
- Database administrators

Course outline

Detailed course outline

Day-by-day outline for Data Warehouse Design and Dimensional Modelling.

Day 1 - Data Warehouse Concepts

- 09:00-09:39 | Purpose of warehouses
- 09:39-10:18 | Architectures
- 10:18-10:57 | Data marts
- 10:57-11:00 | Cloud warehouses
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Cloud warehouses (continued)
- 12:05-12:43 | Requirements
- 12:43-14:00 | Exercise: Requirements analysis

Day 2 - Dimensional Modelling

- 09:00-09:39 | Business process modelling
- 09:39-10:18 | Grain
- 10:18-10:57 | Facts
- 10:57-11:00 | Dimensions
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Dimensions (continued)
- 12:05-12:43 | Star and snowflake
- 12:43-14:00 | Workshop: Dimensional model

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Day 3 - Advanced Dimensions

- 09:00-09:45 | Slowly changing dimensions
- 09:45-10:30 | Conformed dimensions
- 10:30-11:00 | Hierarchies
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Hierarchies (continued)
- 11:45-12:30 | Bridge tables
- 12:30-14:00 | Exercise: SCD design

Day 4 - Data Integration

- 09:00-09:45 | ETL and ELT
- 09:45-10:30 | Staging
- 10:30-11:00 | Data quality
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Data quality (continued)
- 11:45-12:30 | Orchestration
- 12:30-14:00 | Lab: Integration design

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Day 5 - Performance and Governance

- 09:00-09:45 | Indexing and partitioning
- 09:45-10:30 | Aggregations
- 10:30-11:00 | Metadata
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Metadata (continued)
- 11:45-12:30 | Governance
- 12:30-14:00 | Capstone: Warehouse design

Seminar dates

Available seminar dates

Live dates and pricing for Data Warehouse Design and Dimensional Modelling generated from the course details page.

Date	Location	Format	Fee
18 - 22 January 2027	Paris	Classroom	€3,825
15 - 19 February 2027	Frankfurt	Classroom	€1,875
15 - 19 March 2027	Barcelona	Classroom	€2,815
19 - 23 April 2027	Frankfurt	Classroom	€1,875
17 - 21 May 2027	Rome	Classroom	€3,460
21 - 25 June 2027	Kuala Lumpur	Classroom	€1,925
19 - 23 July 2027	Barcelona	Classroom	€2,815
16 - 20 August 2027	Paris	Classroom	€3,825
20 - 24 September 2027	Frankfurt	Classroom	€1,875
18 - 22 October 2027	Barcelona	Classroom	€2,815

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18 - 22 January 2027	Online / Live	Online / Live	€1,815
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21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815

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