

Course Description

MODELING the AGILE DW

Modeling the Agile Data Warehouse



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Overview

Today our Data Warehouse program needs to be agile. This means that the data warehouse will need to easily adapt to changes. In fact agility is the measure of our ability to adapt to change. If everything stayed the same then there would be little focus on agility.

We understand that to achieve agility in our data warehouse program we will need to have the people, processes and the tools that support it. One key factor is an agile data warehouse data model. The data modeling patterns that we use as the basis of our data warehouse must support our agility requirements.

In this course we focus on full picture of what it takes to model the agile data warehouse. Taking into account the people, the processes and the tools that support DW agility. The scope of the course covers the Modeling Approaches, Modeling Patterns, DW Architecture, DW Teams, Project Management Approaches and Methodologies that support Agility in your data warehouse program.

This is a one (1) day course delivered in the classroom.

Course Description

This is a complete course teaching you how to model an agile data warehouse. While the focus is on how to model and architect an agile data warehouse, this course covers all aspects of agility in the data warehouse program.

Beginning with defining the business need for agility – this course is founded in the business requirements of your data warehouse business intelligence (DWBI) program. The course moves quickly into the modeling requirements and the forms of modeling patterns that address these requirements. From there we cover the modeling approaches and specific modeling patterns that are applied to these agile data warehouse models. The material covers the specific features that each pattern addresses, along with the pros and cons of these patterns. To effectively deploy these modeling patterns they should be matched to the appropriate DW architecture as well. This course will present effective examples of agile DW architectures along with the key characteristics for success.

The course will then cover effective DW teams and team-member roles that support a fully agile DW program. Lastly the course presents the effective agile project management approaches and methodologies that align with these approaches to support the continued development of your agile DW.

The course consists of three (3) components: The one day classroom course, the course materials and the agile DW book.

Classroom course day

Lectures

Exercises

Course materials

Class presentation deck

Book

These components are designed to work together by communicating a consistent and clear message concerning the modeling of the agile data warehouse.

Classroom Course Outline

The classroom day is scheduled in a location that includes table space for each student to work, white boards, flip charts, and a presentation projector used during the lectures. The classroom day is engaging and highly interactive with the students. The day includes lectures and exercises.

The classroom course runs 09:00 to 17:00. Students arrive for coffee and introductions beginning at 08:30. Class starts promptly at 09:00. The classroom course schedule:

- 08:30 Arrive, Coffee and Introductions
- 09:00 Introduction modeling the Agile Data Warehouse
What is Agility? What are the characteristics of the Agile Data Warehouse? How do forms of data modeling support Agility?
- 09:20 The Business Need for DW Agility
DWBI program business requirements. The need for rapidly adapting to change. Types of changes that DWBI programs face. Categorization of these types.
- 10:00 Requirements of our DW database model
Characteristics, constraints, variables, goals and requirements of the enterprise data warehouse data model. Compare to that of operational systems and data marts. How the modeling patterns impact these variables.
- 10:30 BREAK
Exercise Assigned
- 10:45 Complete and Review Exercise
Complete Exercise, Discuss, Q&A.
- 11:15 Forms of DW Modeling Approaches
Common characteristics of new Ensemble approaches compared to 3NF and Dimensional modeling paradigms, features and characteristics of these approaches, a categorization of current methods including anchor, 2G, temporal, 6NF, Focal and Data Vault.
- 12:15 LUNCH BREAK

- 13:00 Comparing modeling approaches – the Pros and Cons
- Considering the features of the specific approaches and comparing them. Looking at the pros and cons of each approach. Looking at the characteristics or variations to these approaches including level of abstraction, generic forms, vertical design & data driven.*
- Summary of key considerations, trade-offs and best practices for modeling the agile data warehouse. Discuss, Q&A.*
- 14:15 BREAK
- 14:30 Data Warehouse Architectures
- 2-tier, 3-tier and 4-tier architectures, true EDW versus ODS, analytical applications, active data warehouse environments, operational integration, federated marts, and the role of history in the DW. The Agile DW Architectures. Considering views, virtualization and in-memory architectures. Discuss, Q&A.*
- 15:30 Data Warehouse Teams and Team Roles
- The role of the business in the DWBI Team. Standard Agile DW Teams: the Business Analyst, Information Modeler, PM, Data Architect, Data Modeler, ETL designer and developer, testing, metadata and documentation. Optimal Agile Teams. Scrum Teams. Discuss, Q&A.*
- 16:00 Agile Project Management Approaches and Methodologies
- DW Project Management approaches, methodologies, considerations for the agile DW program, incremental build, adaptability, frequent deliverables, project risk, project funding, central requirements, agile methodologies, Beam, Scrum, component and matrix approaches.*
- 16:40 Final topics and recap.
- Final topics, recap, address questions from the course, discussion and Q&A.*
- 17:00 Class is Completed.

Course Materials

This course includes detailed course materials to help support the learning process. Beyond the classroom the course materials and book are designed to be used as references and guides to support your ongoing agility efforts. Materials for this course include:

Class Presentation Deck	Printed and bound 60 pages.
Book	Published book 434 pages.

Target Audience

This course is intended business intelligence and data warehousing professionals. The class is intended for persons who are involved with the data warehousing business intelligence (DWBI) program. Because agility requires the people, processes and tools of the entire program to in synch, this course has a broad audience including the business itself, those who understand the business models, those who gather requirements, design solutions, perform information modeling, data modeling and also mart design.

The class is perfect for DWBI management, project managers, all forms of modelers and architects including Information Modelers, Data Modelers, Data Architects, Information Architects, and Business Analysts. Also for Business Intelligence and Data Warehousing managers, Master Data Management (MDM) professionals, designers, project leads and project owners, DW DBAs, Data Mart designers, Integration Experts, ETL Developers, and Functional Area Representatives.

Logistics and Fees

All students should be enrolled at least one (1) week before the classroom course day. Please plan for this lead time in your schedule when you register for the course.

Plan to arrive to the training location by 08:30 for the classroom course day. For planning purposes the end of class is 17:00 however it is typical that students have questions after the end of class. The instructor is available until 18:00 to discuss questions.

Location specific logistics and course fees for your class can be found here:

www.GeneseeAcademy.com/course-schedule