

## Certified Data Vault Data Modeler

**Duration: 3 Days    Course Code: CDVDM**

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### Overview:

An architecture based on Data Vault offers a unique solution, focused on data-integration by and in the whole organisation. The key to success for Data Vault lies in the flexible embeddedness of the company processes. Strict compliance with the fundamental rules of the concept guarantees a solid base for your datawarehouse. Data Vault offers the opportunity to realise flexible and cost effective datawarehouses in a short period of time

Through a combination of on-line training and five intensive half-day on-site trainings you will receive answers to all your questions regarding Data Vault. The seminar will be rounded off with an exam which enables you to become 'Certified Data Vault Data Modeler'.

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### Target Audience:

Data Architects BI and/or IT architects BICC team leaders Business analysts information analysts data integration designers and consultants ETL designers, project managers database administrators architects who are involved with Datawarehouse surroundings

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### Objectives:

- You understand all ins and outs of Data Vault, including the application of Big Data surroundings
  - You are fully prepared for the Certified Data Vault Data Modeler exam
  - You are able to put all principles into practice
  - You have done the exam on-site; you receive the results within four weeks
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### Prerequisites:

Solid knowledge of Datawarehousing and some experience in the disciplines relevant for this seminar. Upon arrival in the class, participants must have \*working knowledge\* of Data Vault principles and standards as defined in the E-learning lessons.

### Testing and Certification

The course will be closed with an exam that allows you to become 'Certified Data Vault Data Modeler'. A unique opportunity to enhance your distinctive professional value! The exam tests in 4 sections you gained knowledge on the geed of Data Vault and Ensemble Modeling and is written in English. The assessment will take place on ideas and concepts rather THAN on grammar or spelling.

At the end of the training days, participants will receive different exam dates with the option to choose a suitable date. Before the exam's taken, there is another re-cap session that provides an additional set of videos and allows you to ask questions.

To broaden your knowledge, you have the possibility to follow additional and broadening modules via the e-learning program of Genesee Academy, until two weeks after the seminar.

The classes, training material and the exam are all in English.

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### Follow-on-Courses:

ADVM, Advanced Data Vault Modeling

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## Content:

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he CDVDM seminar consist of three components:

- 8-10 hours of self-study via online video classes (e-learning).
- 3 days of in-class lessons lead by a Genesee Academy Certified Instructor (on-site / live-on-line)
- Certification exam (2,5 hours on-line exam in English).

### AD 1: ON-LINE / SELF STUDY

Foundational Concepts – business overview

- Segment 1: Architecture Constructs
- Segment 2: Definition of the Data Vault
- Segment 3: Issues and Evolution in Data Modeling
- Segment 4: Scalability, Agility, Pros and Cons
- Segment 5: Operational Data Warehousing
- Segment 6: Business Case Studies
- Segment 7: Common Business Process Modeling Errors
- Segment 8: Classified Information Systems
- Segment 9: Business Process Agility in I.T.

Foundational Concepts – technical overview

Segment 1: Hubs ; Lab on Hub Discovery

- Hub Definition
- Business Keys
- Composite Business Keys
- Real-time Arrival of Keys

Segment 2: Links ; Lab on Link Discovery

- Link Definition
- Link to Link
- Links and Role Playing mistakes

Segment 3: Satellites ; Labs on Satellite Discovery

- Satellite Definition
- Type of Information
- Rate Of Change
- Splitting/Consolidating Satellites

Key Structures, Elements in Tables, Common Table Structures

Segment 4: Point in Time/Bridge Tables, User Defined/Record Sources

- Point in Time Structures
- Bridge Tables
- Reference Structures
- Report Collections
- Net Change and Tracking data across loads
- Aggregation Points

Segment 5: User Grouping Sets

- Excel Sources
- Flat File Sources
- Defining User Data and processing into the DV

Segment 6: EDW Processing

- Business Processing Overview
- Tying the business to the technical data models
- The business process of defining a Data Vault

Segment 7: Conversion to A Data Vault

- Converting from Normalized format to a Data Vault
- Converting a Dimension to a Data Vault
- Converting from a Report to a Data Vault

### AD 2: IN CLASS TRAINNG

Loading and Querying processes within a DV

Segment 8: Golden Rules, Loading Constructs, math behind the Load Cycles

- Golden Rule of the Data Vault
- Basic Mathematics behind the loading processes
- Paradigm Shift in executing Business Logic
- Agility of the Loading Processes
- Scalability of through Architecture
- Hub, Link, Satellite Load Process Flows

Segment 9: Loading Data Delivery Mechanisms

- Loading Dimensions
- Loading Facts
- Loading Error Marts
- Loading Report Collections

Segment 12: Business Constructs

- SLA's needed for changes, and sign-off
- Default Values versus Error Codes
- Zero Rows populated in the Data Vault
- Views in the Data Vault

Segment 13: Strategies for Managing the Data Vault

- Backup and Restore
- Suggested Topic Areas
- Suggested Satellites
- Items To Note

Exceptions ; Brainstorm

Near the end of the seminar the inevitable "exceptions to the rule" will be discussed as well as other issues and specific challenges that have come up during the seminar. The seminar is concluded with a Data Vault recap, a brief time to prepare for the test and...the written exam.

Free on-line in-depth modules

After the seminar you are able to extend your knowledge even further by accessing for two weeks additional in-depth on-line lessons through the e-learning program of Genesee Academy.

### AD 3: CERTIFICATION EXAM

The course will be completed, on a day to be determined (15.00 – 18.00 hours), with an online proctored exam that allows you to become 'Certified Data Vault Data Modeler'. The certification is a closed book exam and lasts 2,5 hours. The questions are in English and can be answered in English or Dutch.

Within 4 to 6 weeks after the seminar you will receive the exam results. With a positive result you will also receive an official certificate of Genesee Academy. A free of charge resit exam is possible in consultation.

#### Segment 10: Scalability of Loading Processes

- Issues with the current loading paradigm
- Shifting the paradigm for Compliance reasons
- Delta Processing and Set Logic
- What to do about “bad data”

#### Segment 11: What Happens when you Break the Data Vault Rules?

- Role Playing Links
- Mistakes with the Load Dates

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### Additional Information:

#### E-Learning / Self Training

The on-line training will be offered approximately two weeks before the start of the classical training. This part consists of 30 lessons via video streams and e-learning which enables you to study the basis Data Vault in your own tempo.

In the on-line program a case will be broadcast as preparation. This case will be discussed in the classical part. To be well-prepared and able to effectively take part in the on-site trainings you will have to have followed all on-line classes and elaborated on the case!

#### Classical Training

During the three classroom days the learning in the on-line section and the self-worked case will be recalled. Furtheron we will discuss new cases and labs with the design, agreements and underlying principles of modelling according to Data Vault.

The course days are divided as follows: 35% class, 40% In-Depth labs & workshops and 25% discussions. By being intensively occupied with cases yourself, you will quickly be able to make the studied subject matter your own. Goal is to not only prepare yourself as well as possible for the exam, but also to learn the deeper backgrounds of Data Vault and to get ready for practice. The design of this training is therefore entirely in the focus of interactive and collaborative work. Live-on-line performances are also like being in a training room with your fellow students.

#### On-Line in-depth course

To broaden your knowledge, you have the possibility to follow additional and broadening modules via the e-learning program of Genesee Academy, until two weeks after the seminar.

The book “[Modeling the Agile Data Warehouse with Data Vault](#)” by Hans Hultgren is part of the course and will be awarded after the exam.

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### Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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