
# D# – A TOOL FOR DATA WAREHOUSE DEVELOPMENT AND AUTOMATION

www.dsharp.fi

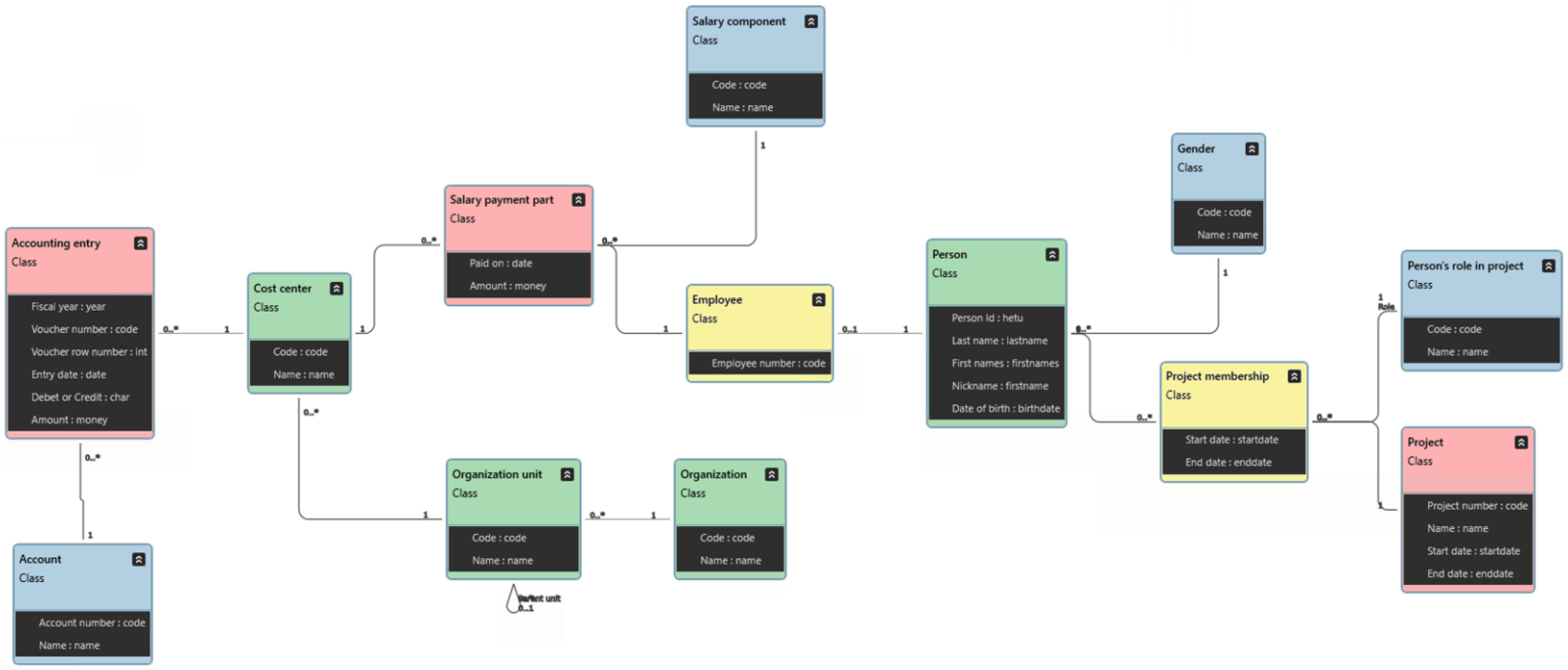
**D# is a tool that automates the development and maintenance of a Data Vault platforms through business-driven conceptual modeling.**

## In this presentation we cover:

- What is **Conceptual Modeling** and what is it needed for?
- What is a **Data Vault** modeled Data Warehouse and where is it best suited?
- What does **Data Warehouse Automation** mean and what are the benefits?
- Why choose **D#** for development and maintenance of your Data Warehouse and how is it utilized?

# CONCEPTUAL MODELING

*A conceptual model (picture) is a **mutual language** between different business units, management and IT, and thus the foundation for a **successful Data Platform** project, for successful **Analytics** and **Reporting**. Important terminology, core concepts and the relations between different processes, activities and people within an organization are portrayed in a clear and visual manner.*



# DATA VAULT PLATFORM

*Data Vault is a business-oriented **modeling methodology, architecture and de-facto standard** for agile Data Platform development created by Dan Linstedt (US). A Data Vault modeled platform has a clear structure, that improves its manageability, flexibility and operational reliability as the business environment and the needs of an organization change.*

## The best solutions when you need:

- An agile, reliable and scalable data platform solution.
- A data platform solutions for growing and developing organization with changing needs.
- A solution for reporting and analytics that combines data from a big amount of different data sources.
- Historical data, harmonization of data from many different sources and calculations for analytics.
- A standardized methodology with lot of trained data professionals on the market.

## Business benefits:

- A modeling methodology independent of vendors or infrastructure technology. A bridge in hybrid clouds.
- Trending in the data markets and future proof.
- Harmoniously compatible with e.g. Big Data and Data Lakes.
- Scalable and easily understandable architecture (that describes the activities of the business and organization).
- Reports and operational reliability are sustained even as the Data Warehouse is being expanded or changed.
- Enables cost-efficient maintenance and agile development.
- Enables traceability, data security and historical data.

***More information:***

*https://danlinstedt.com/*

*https://datavaultalliance.com/about/what-is-datavault/*

# DATA WAREHOUSE AUTOMATION

*The tools of Data Warehouse automation and data modeling bring **speed** and **cost-efficiency** to Data Warehouse projects. A modern data platform consists of an automated data warehouse with a conceptual business model as its blueprint. At the core of data warehouse automation is an "accelerator" automatically producing structures and loading code according to the conceptual model.*

**Data warehouse automation:**

- A good solution (incl. Methodology and Toolbox) fully automates manual tasks in the construction, maintenance and development of a data warehouse.
- There are many different approaches by different vendors.
- Can enable agile data warehouse enlargements and changes in a secure and controlled manner.
- Suits excellently for building and maintaining vast data platforms.
- Best tools ensure "*see through*" visibility into business data and ensures that documentation, repositories, etc. stay synchronized with the implementation of the data platform.
- Tools on the market - For example D# Methodology and Toolbox

**Benefits of automation:**

- Businesses get their reports ja analyses quicker.
  Saves work time and money.
- The efficiency of developers increases, and work can be allocated to more profitable tasks.
- The end result is according to standards, of high quality, predictable and easy to maintain.
- Data platform development can be split into small agile projects.
  Smaller risks in enlargements and changes.
- The traceability and quality of data improves.
- Why code, when you can automate routines?

***Key words for example:***

*”Data Warehouse Automation”, ”low-code”, ”DataOps”*

# D# AUTOMATION TOOL AND METHODODOLOGY

- D# is a tool and methodology designed for agile development and automatization of a data warehouses, for data professionals.
- Is based on visual modeling of customers business concepts and data warehouse automation according to Data Vault standards.
- Generates all SQL code needed for the structures, loading mechanisms and interfaces of the data warehouse based on the **conceptual model**.
- Developed since 2006 and is used widely: https://dsharp.fi/you/customers/

# WHY CHOOSE D#?

- 80 % lower data warehouse life cycle costs
- Easy and risk-free scalability and modifiability
- Consistent and high-quality end result
  – no mistakes typical for manual work
- Independent of persons
- Open and automatically maintained HTML-documentation
- Higher productivity of professionals
- Enables a genuinely fast and agile development cycle
- Growing developer community

**Case Monetra:**
***"This morning I updated all load procedures for a customer solution to the new version. With one click I created slightly over 4 million rows of SQL code. At the same time, I updated the 3500-page HTML-documentation with another click", says Kim Johnsson.***


# INTERESTED?

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