
KCSD Corporate DWH: Concept and Features

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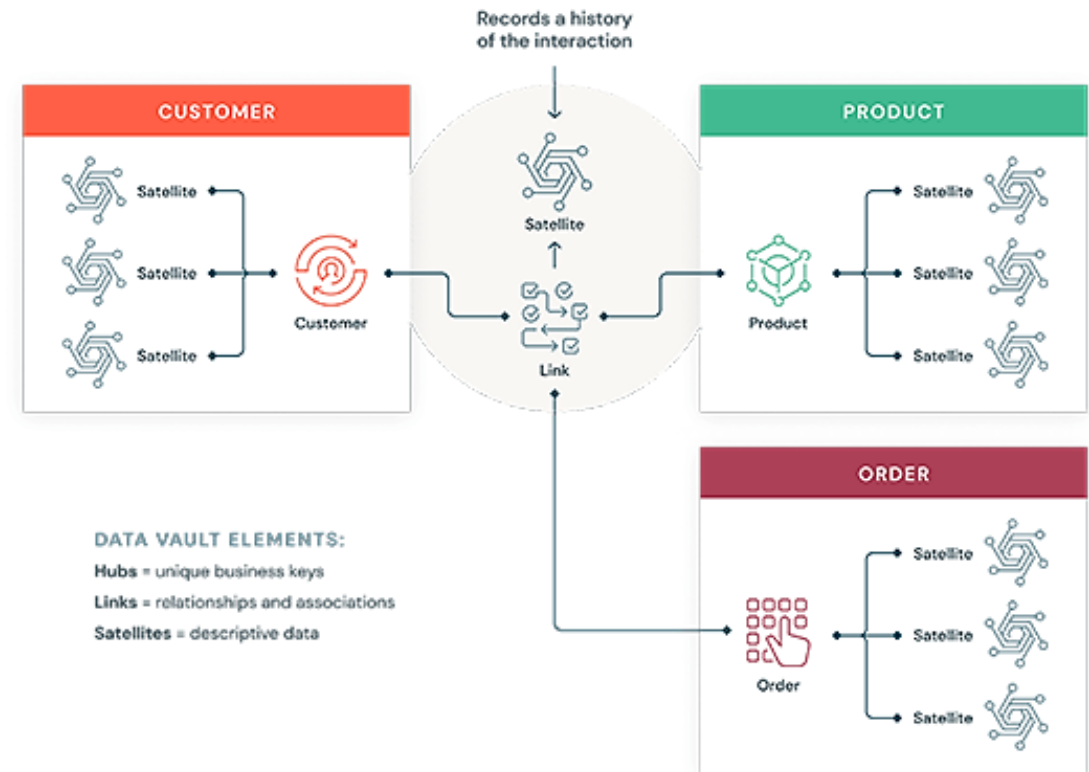
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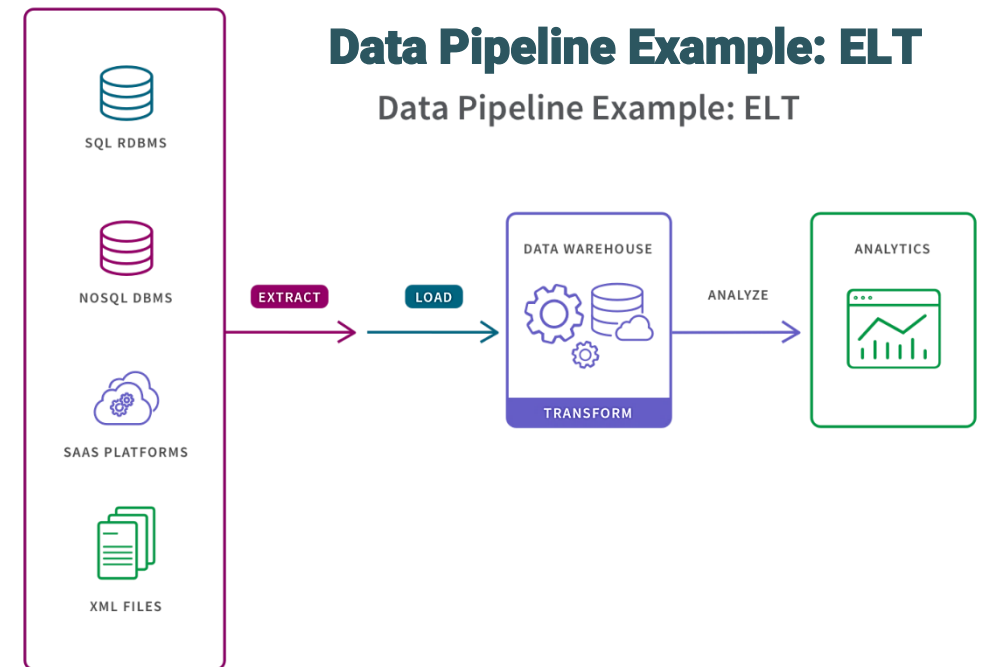
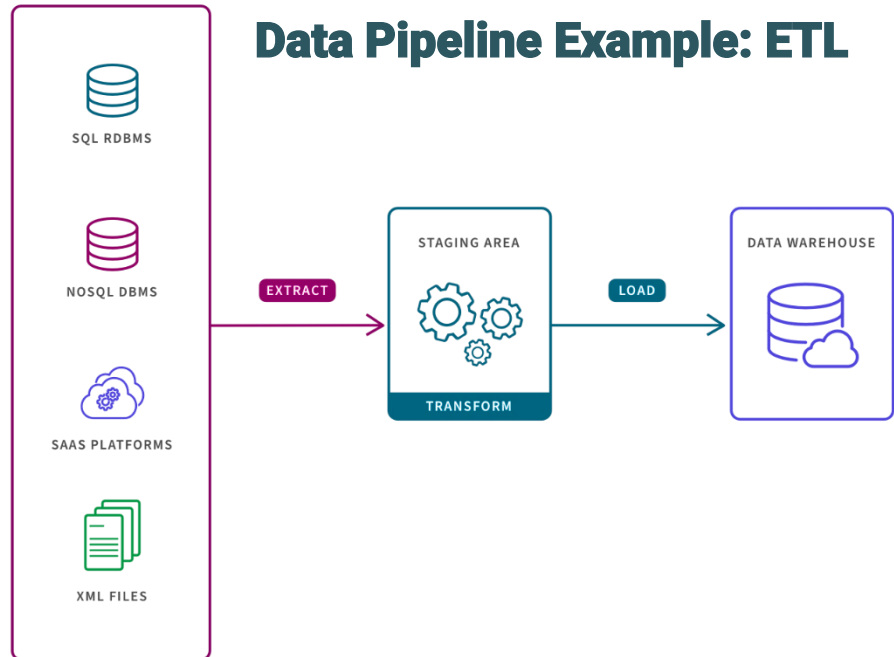
Concept

- KCSD **corporate data warehouse (DWH)** has been developed in 2023-2024
- **Data Vault Model**
 - **data vault** is a data modeling design pattern used to build a data warehouse for enterprise-scale analytics
 - data vault has three types of entities: **hubs**, **links** and **satellites**
 - **Hubs** represent core business concepts, **links** represent relationships between hubs, and **satellites** store information about hubs and relationships between them
 - data vault is a data model that is well-suited to organizations that are adopting the lakehouse paradigm

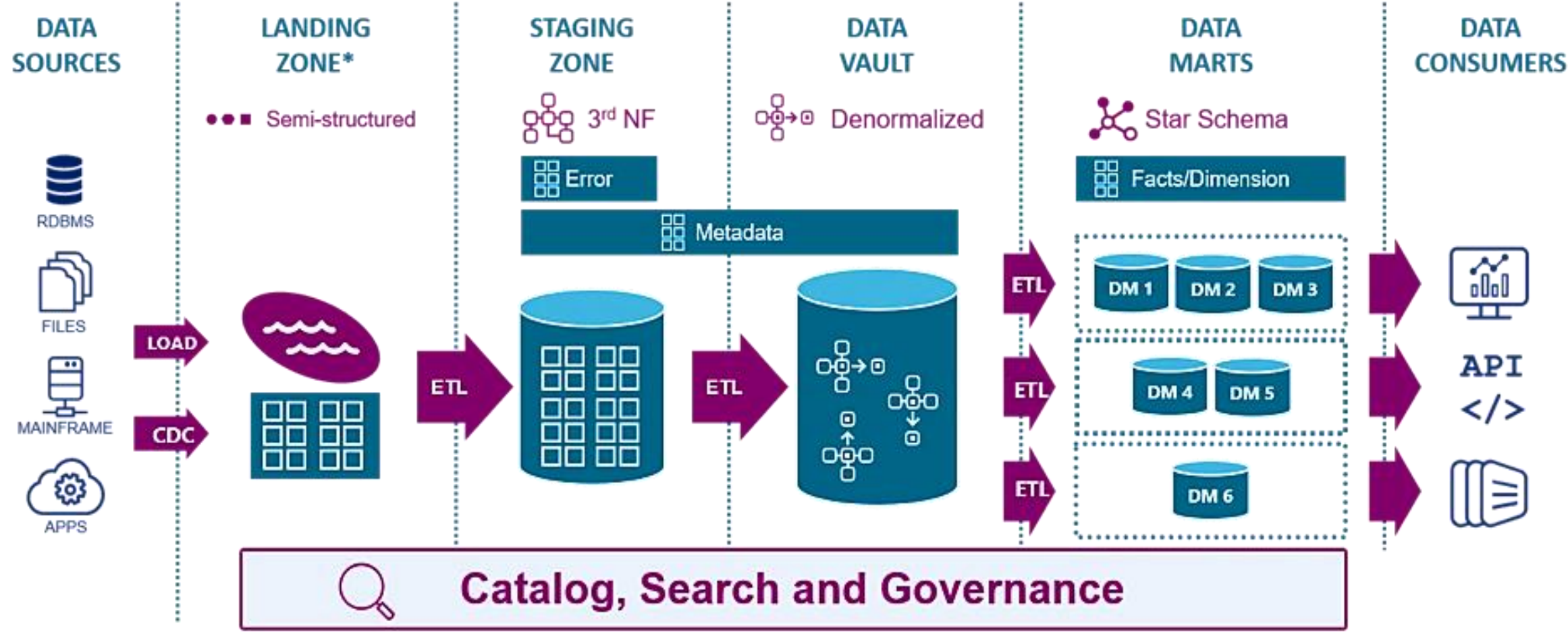
Data vault modeling



Key Features



Key Features



Stages of DWH Development

1	2	3	4	5	6	7
Analysis	Design	Development and Testing	Full testing	Bring to Market	Historicity	Operation and Maintenance
Data sources	Data streams	Deploying the test platform	Checking system reports	Daily data loading	Downloading historical data from table archives	ETL schedule
Expected result	Choosing platform	Structure of DWH, tables, aggregates	Checking data download. ETL schedule	Aggregates forming	Uploading NoSQL data	New Data Marts
	Choosing ETL tools	Mapping of source and DWH objects	Make modifications	Data Marts filling		Scaling
	Choosing tool BI reports	ETL: <ul style="list-style-type: none"> • Staging • DDS • DM 				
	Implementation stages: 1-2-3, etc. queue	Data validation algorithms				

Key Features

Strong Sides:

- multi-level cross-validation of data
- DM. High speed of new data marts development
- DM. Structure of data marts allows a combination of several data marts to obtain almost any data
- unified select to data
- high speed of data processing
- complete, accurate, and up-to-date dataset for BI, data analysis and other applications and business processes

Weak Sides:

- unique handmade data sources, without unified approach to the Database Management System
- conditional closing of the operational (business day). Some operations are 24/7
- cases on data correction

**Thank You
for Attention**



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