



# SQL Projects



~Organize, Structure, Prepare~

- ETL/ELT Processing
- Data Architecture
- Data Integration
- Data Cleansing
- Data Load
- Data Modeling



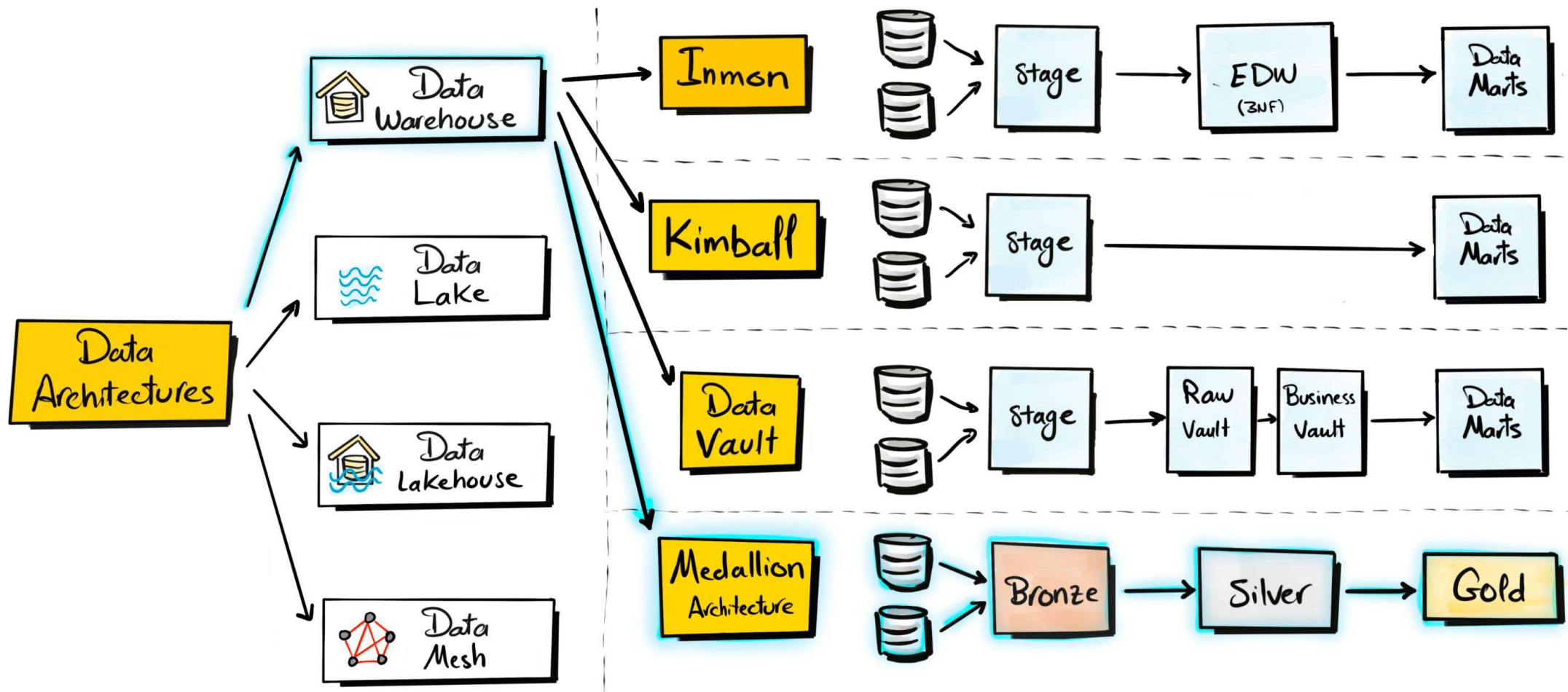
~Understand Data~

- Basic Queries
- Data Profiling
- Simple Aggregations
- Subquery



~Answer Business Questions~

- Complex Queries
- Window Functions
- CTE
- Subqueries
- Reports





## Bronze Layer

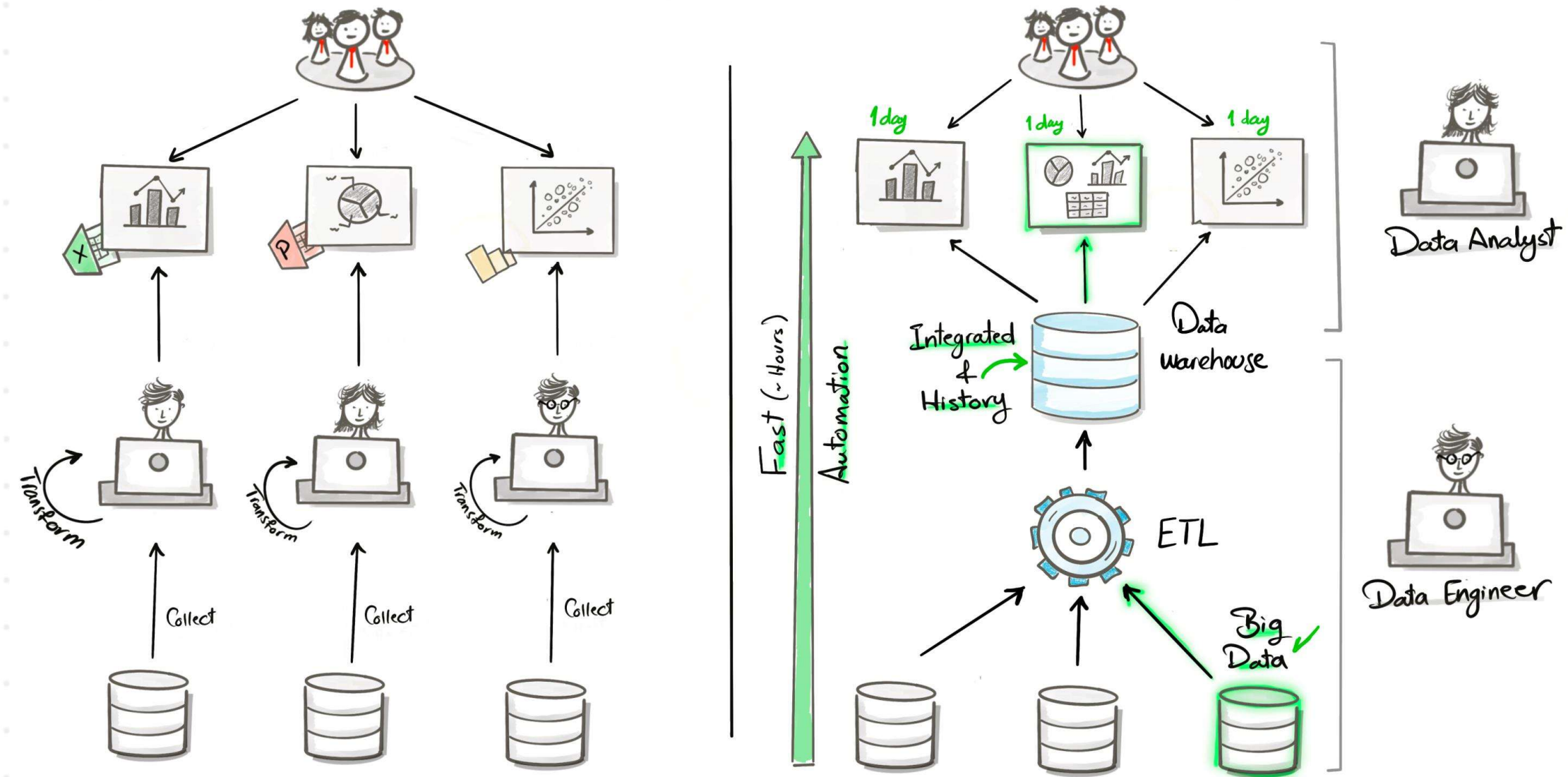


## Silver Layer



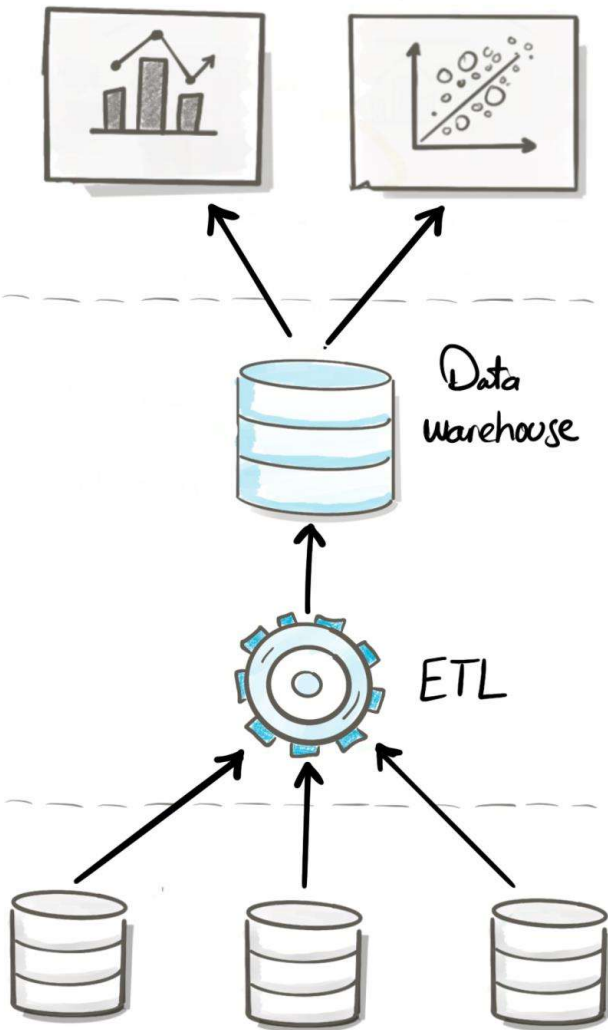
## Gold Layer

Definition	Raw, unprocessed data as-is from sources	Clean & standardized data	Business-Ready data
Objective	Traceability & Debugging	(Intermediate Layer) Prepare Data for Analysis	Provide data to be consumed for reporting & Analytics
Object Type	Tables	Tables	Views
Load Method	Full Load (Truncate & Insert)	Full Load (Truncate & Insert)	None
Data Transformation	None (as-is)	<ul style="list-style-type: none"><li>- Data <b>Cleaning</b></li><li>- Data <b>Standardization</b></li><li>- Data <b>Normalization</b></li><li>- <b>Derived Columns</b></li><li>- Data <b>Enrichment</b></li></ul>	<ul style="list-style-type: none"><li>- Data <b>Integration</b></li><li>- Data <b>Aggregation</b></li><li>- <b>Business Logic &amp; Rules</b></li></ul>
Data Modeling	None (as-is)	None (as-is)	<ul style="list-style-type: none"><li>- <b>Star Schema</b></li><li>- <b>Aggregated Objects</b></li><li>- <b>Flat Tables</b></li></ul>
Target Audience	<ul style="list-style-type: none"><li>- Data Engineers</li></ul>	<ul style="list-style-type: none"><li>- Data Analysts</li><li>- Data Engineers</li></ul>	<ul style="list-style-type: none"><li>- Data Analysts</li><li>- Business Users</li></ul>

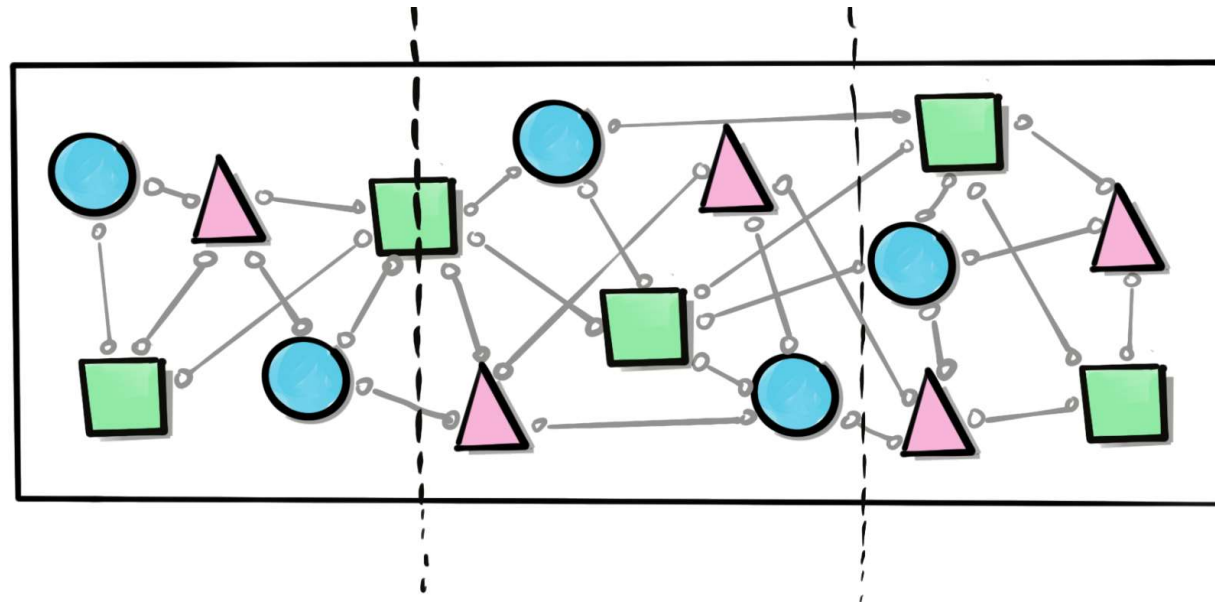


SQL Course | SQL Data Warehouse Project | Why we need it?

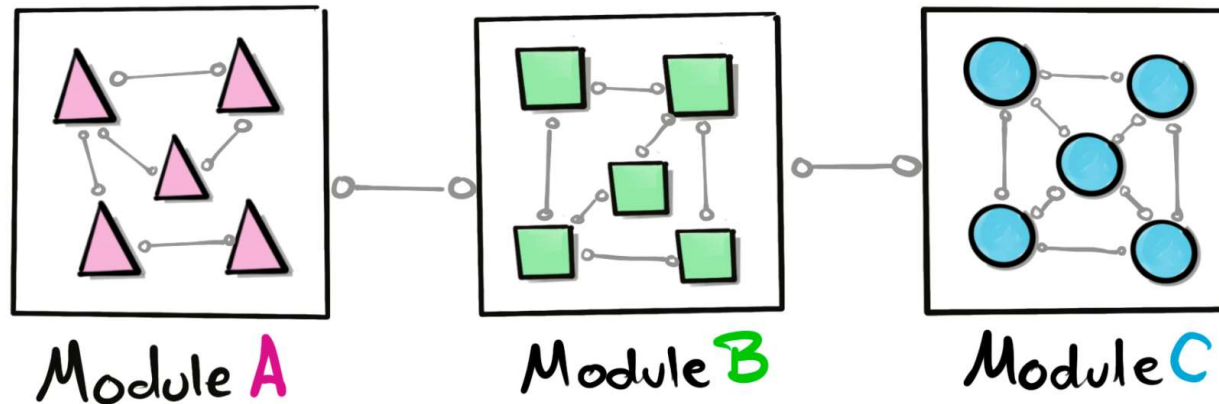


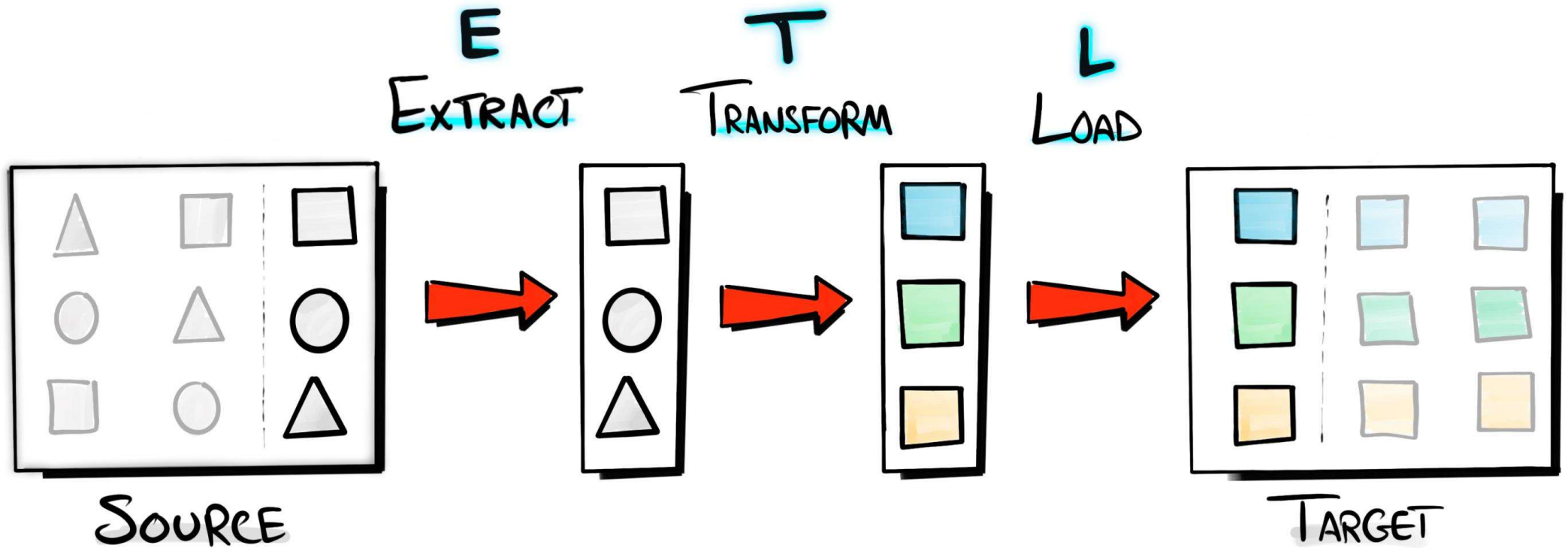


without  
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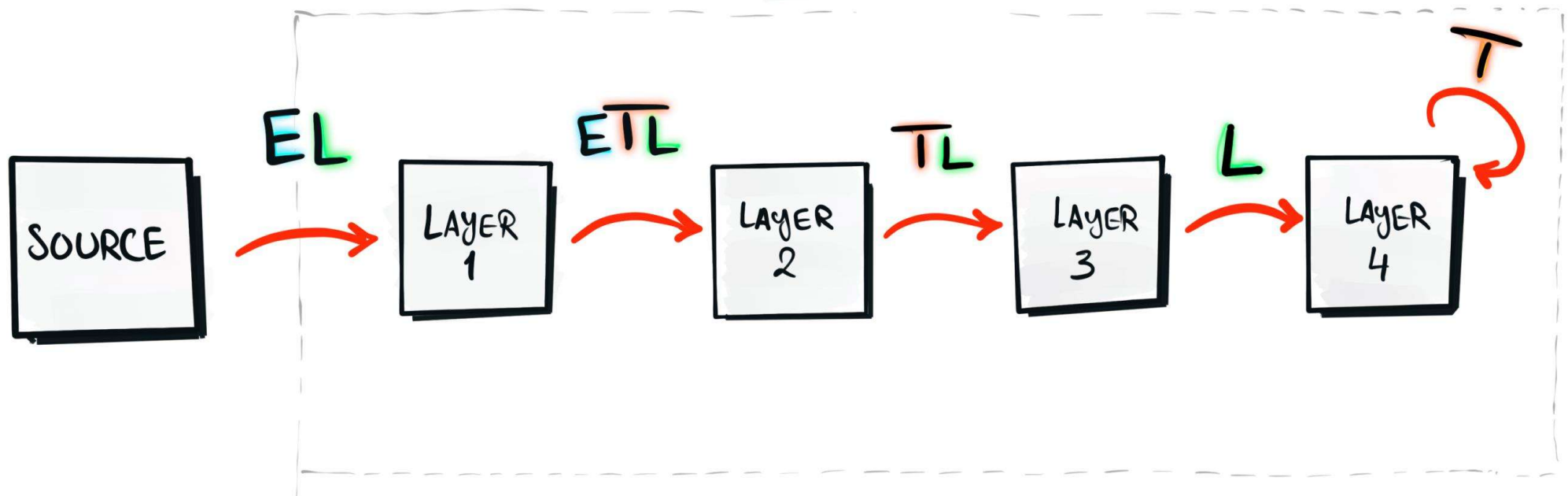


with  
SOC



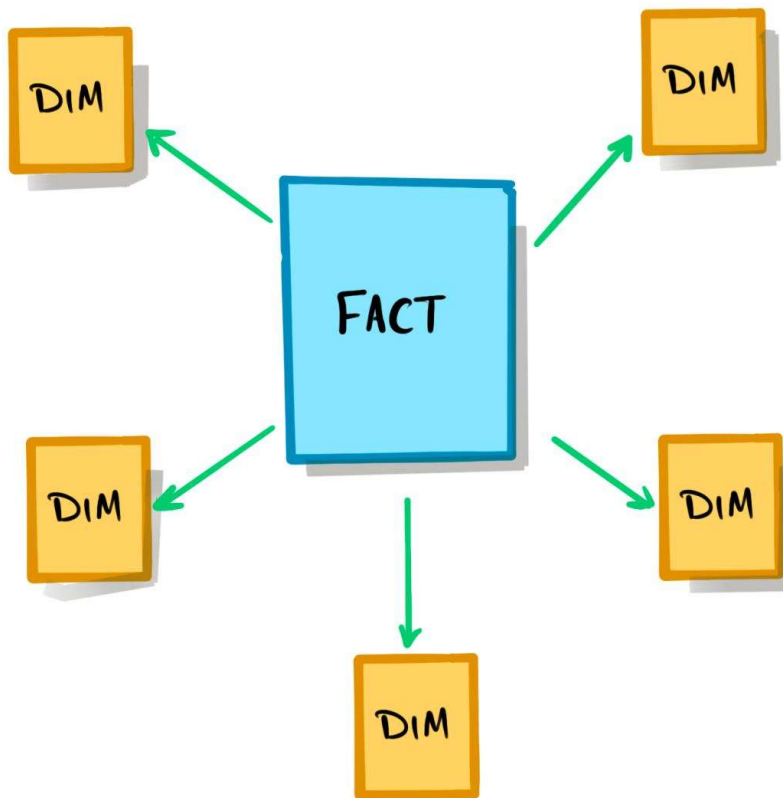


## Data Architecture





## STAR SCHEMA



## SNOWFLAKE SCHEMA

